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Customer Feedback: How to Interpret Returned Data into Beneficial Information

Customer feedback measurements have to be specific and trackable to the ever changing customer expectations. The essential objective of the "returned data" is to improve and enhance customer satisfaction.

One method our group has chosen to collect data was using anonymous surveys. The surveys were carefully worded, yet kept simple, to seek two main valuable customer factors: "value and quality of the training programs." Collected data from the surveys created a measurement tool to evaluate how well our organization was meeting the customer expectations on these quality indicators.

Some of the issues that were noted was that there were a mixture of tangibles and intangibles. A closer evaluation of the results noted that most of the survey participants used the survey as a beneficial tool, while a smaller group did not.

For the "returned data" to be actionable, a tracking system was developed. The system is reviewed frequently by both the training organization and the customer to incorporate all suggestions that served to meet the objective of the survey.

As with all asked questions, you have to be prepared for the answer. An example of one of the questions was: "If our training group was a vendor, and your organization was required to pay for the training provided, would you continue to pay for the training provided by our group?"

The survey results from just this one question was rather intriguing and the solution was even more perplex!

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Mission Impossible: If You Choose to Accept It…Deliver 13 Computer-Based Training (CBT) Modules in 9 Months

Are you being asked to do more with less? And how do you take a variety of training requirements, package these into one single product to please a novice or non-user computer user? Discover how a team of 15 flexible performance technologists worked as partners to design and develop 13 computer-based modules on time and under budget to replace an annual stand-up training package. It is a success story providing a multitude of lessons learned. We will discuss a variety of techniques and tools and the "how to's." The session will address three areas - project management, project design and technical considerations. Discussion topics will focus on use of shared resources, customization of products, partnering, training topics, cost reduction strategies, customer feedback, diversity of team, constant change in team resources, customer work environment, selection, order, delivery, and installation of hardware to 3 remote training sites.

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Adding Pizzazz (and Practical Applications) in Computer-Based Training (CBT)

One of the goals of FDH Training is "to provide customer-driven training services in a quality and cost-efficient manner." This presentation will focus on CBT, and will show how FDH Training uses CBT on site. Included will be demonstrations of the use of a computerized presentation system, and how one can add interest and pizzazz through the incorporation of video clips, graphics, etc.

The presenter will discuss how others can use new, available technology to upgrade their overheads into the 21st century and look like a computer systems expert!

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Clearinghouse for Training, Education and Development (CTED) Internet Home Page Display

The Clearinghouse for Training, Education, and Development (CTED) Home Page on the Internet is now the prime provider of DOE training information to the complex. CTED has many features that allow the user to access the latest training news from headquarters and from around the complex. The CTED Home Page opens with a newly designed menu of choices that link to training "hot" topics and training resources, such as the DOE Universal Course Catalog, Technology Supported Learning and DOE lead site materials. CTED offers the*Spectrum OnLine* news service, posts a schedule of meetings and conferences of interest to training and development professionals across the complex and makes the latest information available at a click of the mouse. The newest addition is the search button, which allows users to search for specific topics anywhere in the CTEDwebsite.

The main topics of the CTED Home Page are:

- Strategic Alignment Initiative-44 - continuing efforts at creating an effective, efficient centralized training management organization which utilizes decentralized implementation and distribution organizations.
- Technical Qualification Program - continuing efforts of Program and Operations Offices as they upgrade the qualifications of technical personnel.
- Lead Sites/Centers of Excellence - development of learning activities to support the technical qualification program. Links to each of the Lead Sites and Centers of Excellence.
- Technology Supported Learning - ongoing information about the Distance Learning Initiative and alliances created. Also included is information about computer-based training and its latest uses.

Spectrum - A compilation of the latest news from all the other categories will be provided on a monthly basis. Information from the field and contractor training organizations will be included in the monthly version of the new *Spectrum* news service.

DOE Catalogs/Resources - All course catalog information is accessed at this location. This includes a schedule of current offerings. Future offerings will lead to a complete one-stop shopping area for course registration, on-line training and testing opportunities, and an update of your personal training record.

Links - These lead to all the Program and Operations Offices, Lead Sites/Centers of Excellence, contractor training organizations, home pages of all DOE locations, and other government and non-government locations which provide training or performance improvement information.

Registration - This includes information about participants and how they can receive further information. This is also an area where participants can provide feedback to CTED about how the system works or suggestions for improvement.

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EH-41, Office of Environmental Policy and Assistance: Who We Are, What We Do, and What We Can Do For You

The TRADEing POST Display will concentrate on sharing information regarding the resources & capabilities of the three divisions in EH-41, namely, EH-411 (Compliance Assistance); EH-412 (Air, Water & Radiation); EH-413 (RCRA/CERCLA). Highlights of the display will include the following:

- Overall EH-41 mission
- Mission of each division
- Division functions
- Resources & support capabilities of each division
- Expertise available in each division

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Privatization: Making It Work in the DOE Contract Reform: What's Working and What's Not

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Computer-Based Training/Web-Based Training: Considerations for Implementation

Computer Based Training (CBT) and Web Based Training (WBT) are examples of advanced training technologies that are becoming common additions within companies that are required to provide training for their employees. Each of these technologies share common ground in that they provide the participant with a consistently delivered, self paced, method of instruction.

Each method can also point to a track record of cost avoidance and cost savings within the DOE community. For the most part, employees that are on the receiving end of training delivered via computer seem to enjoy the interactivity and reduced training time that can be achieved. Management and employees alike benefit from the convenience of reduced travel and shorter training times.

The question faced by many training organizations is when is it advantageous to use one method over another? CBT boasts of a robust use of multimedia and interaction, while the web can be used to link an endless number of pages on any given topic and viewed from almost any networked terminal.

The purpose of this presentation is to share lessons learned while designing and developing CBT and WBT courses for laboratory personnel. The strengths and weaknesses of each method CBT / WBT and criteria for selection of each will be discussed. Specific issues that will be addressed will include:

- Why use CBT and WBT?
- What kind of support is necessary in the design, development and maintenance phases?
- Criteria for selection
- What are the costs involved in getting started?

- Security and copyright issues
- Pros vs. cons

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Central Training Academy

This TRADEing POST display will share with the DOE community the various products being produced by the Central Training Academy (CTA). This will include displaying correspondence course materials, showing video tapes, and having hands-on demonstrations of computer-based and web-based training materials. The booth will also explain how the CTA products can be obtained by sites.

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Occurrence Reporting Quality

The Department of Energy needs complete, timely, and accurate ES&H data to manage effectively and to fulfill its responsibilities. Like any large industrial organization, we use performance data to ensure efficiency and safety. As a government entity, we have special responsibilities with respect to the Atomic Energy Act, the Occupational Safety and Health Act, the Government Performance and Results Act, nuclear safety rules, and other laws and regulations. The ability to meet these responsibilities and manage our work effectively is dependent on the quality and integrity of available data and the capability to analyze the data from a corporate perspective.

The Occurrence Reporting and Processing System (ORPS) is one of the Department of Energy's most important resources for obtaining information on numbers and types of events, common or related causes for these events, effective corrective actions, and lessons learned. The quality of the data entered into the ORPS data base impacts the accuracy of the analysis for improving operations and safety. The value of the ORPS data is enhanced by timely reporting, complete and consistent event information, thorough and technically defensible cause analysis and description, corrective actions that will prevent the recurrence of the event, and a complete description of lessons learned to share with other sites. This presentation will focus on problems with occurrence reporting quality, including timeliness, and the new initiatives in place and under development to improve the quality of the ORPS data base to make it a more valuable analytical tool.

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Lessons Learned in a Course Benchmark Study

In a continuing effort to improve quality and reduce costs, Fluor Daniel Hanford's Central Training undertook a training benchmark effort in FY1997. We compared five courses in the areas of cost and quality.

We chose key courses based on the number of student hours invested in the last two years and on whether we expected to find like courses elsewhere in the DOE complex and in the private sector. We tried to keep course content equal by using course objectives to help ensure apples-to-apples comparisons.

A question that needed answering before the partnering got underway was whether to benchmark with companies that are best in training, or best in missions like those at our company. And, how do we define "best"?

Classic, basic project management skills and tools are essential for abenchmarking study to succeed. This does not mean merely managing cost, schedule and scope. It also involves coaching, teamwork, and sharing common (or compatible) goals.

The study yielded some good resources from theinternet, a fairly new tool, which is like sipping from a fire hydrant.

Benchmarking a product--courses--rather than the processes that bring the training to students offered opportunities and posed challenges. One weakness of common training metrics is that without understanding what a value represents-why the value is what it is-- it's hard to know if the value is good or bad. Comparing courses helped in understanding all the dynamics that make acourse--but didn't answer questions about whether the course was the right way to address the performance need.

Benchmarking has a code of ethics and a learning curve that must be respected. And if they are,benchmarking can greatly enhance our return on investment.

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Lessons Learned: Implementing the PHMC, a Performance-Based Contract at Hanford

Successfully changing from one contract type to another by DOE and contractor personnel requires a thorough analysis of what changes will be necessary. In addition, preparing for the impact such changes will have on the work force is essential. Such a challenge becomes even more acute in an era of shrinking budgets and continually changing organizational structures.

This presentation will focus on the challenges the Hanford site faces as it moves from a management and operations contract to a performance-based management contract in which one contractor is in the role of integrating the work being performed by 12 subcontractors. The role of training in the context of other processes intended to help the work force with such changes will be explained as well as relating how we have responded to three key questions to help with the transition.

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Media Selection—Can It Deliver?

The media selected for delivering a training course has an enormous impact on your training budget. But are you receiving a good return on investment using the media that you have selected? Are you setting yourself up for huge unnecessary course maintenance costs? Have you chosen the most effective media for the subject matter to be included in the training?

This presentation will discuss selection and use of media to drive training costs down. It will consist of a small tutorial in media types, advantages/disadvantages, and conversion basis and cost as well as the contribution such an approach makes to the Department's Corporate Approach to Training Initiative and methods of institutionalization.

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Training Technology Infrastructure—Building a Cost Savings Framework

This panel discussion will look at training technology applications within the Department of Energy, what is currently happening, what the future holds, and how these applications contribute to the complex wide cost reduction effort. The discussion will explore the closed loop learning system envisioned for the Clearinghouse for Training, Education, and Development (CTED) and the contributions that CTED and the DOE Universal Catalog make in reducing costs by introducing a one stop shop for identifying training and development requirements, linking the requirements to learning activities, registering on-line, and making learning activities and evaluation instruments available on-line.

Other training technology applications from across the DOE complex and their role in the effort to maximize return on investment will also be discussed. Links between CTED and the Corporate Human Resource Information System will be discussed. Tools such as Media Selection Model and PC UNICAT will also be addressed.

The future of training technology applications within DOE will be examined. Happenings around the complex and the cost benefit of these applications will be explored.

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Health and Safety Training—Hands-On Employee Skill Evaluation

The purpose of the booth space will be to demonstrate the evaluation of occupational health and safety skills of trained employees. These skill assessments are formal instructor hands-on evaluations used at the end of the class training. This formalized skill evaluation has been adopted by states such as California in their lead removal worker certification classes and is the preferred method of skill evaluation within the DOE community. Skills evaluation may be done in conjunction with, or in lieu, of a written test in a variety of health and safety training. While still in a "teaching environment" a student participating must actually use knowledge and skills that will be needed when on the job. Two employee skill evaluations will be demonstrated. With both

evaluations the student must identify, and in one situation correct, inappropriate configurations through visual inspection techniques. Employees are evaluated simultaneously on knowledge and skill of potential hazard recognition.

Product Realization Project Launch Workshops

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In the past the nuclear weapons complex (NWC) consisted of design agencies (Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Sandia National Laboratory) and production agencies (Savannah River, Allied Signal/Kansas City, Y-12 at Oak Ridge, Rocky Flats, etc.). The DOE requirements for the part were given to the design agency which had to translate the requirements, a manufacturable "design intent." The typical scenario for the production of a major component was for the design agency to come up with a design then "throw it over the wall" to a production agency. The manufacturing agency would then have to figure out how to produce the product. If the component was difficult to manufacture, then the design would get "thrown back." Now EP401099 mandates that the design agency, production agency and the customer form a team or teams at the beginning of the project so that inconsistencies and design flaws are caught early.

There are two major challenges in implementing EP401099, (1) achieving the technical product and (2) creating a team. Concurrent engineering requires that information flows freely among team members, which implies a high level of trust. The team must be empowered to make decisions and evaluate tradeoffs in real time, without having to go back to respective management. To make matters a little more complicated, some of the non-nuclear and nuclear component manufacturing is being transferred to design agencies (mostly Los Alamos National Laboratory and Sandia National Laboratory). The requirements for DOE product acceptance are much stricter going into the stockpile as compared to R&D product. Los Alamos andSandia needed to start thinking like a weapons manufacturing plant.

We have developed a hands-on three-day facilitated work shop for the engineering teams. The output for each team is a high level project plan which includes scope, and a system-level project plan team building and concurrent engineering exercises are essential elements of the work shop. We will demonstrate some of the techniques that we use in the workshop.

Product Realization Team Workshops
"The idea in using these tools is not to run faster, but to shorten the race"- Earl Whiteman, Director, DOE/WQD

For:
Product or Project Teams who need to define a system level management plan. Most teams are cross functional, cross divisions, and often have other NWC members such as DOE, SNL, Federal Manufacturing and Technologies/KC, etc.

How it Works
90% of workshop time is facilitated work on team's project/program. Also includes:
- Short instruction in how PRT's operate, project management, and requirements for a productive team
- Brief simulated projects (real projects, not paper exercises) to shorten time needed for planning team's actual project.

Why it Works
- We meet with team leaders to scope each team's situation and understand what outcome they need.
- We customize the workshop and select facilitators to ensure good results.
- The project or program's main customer is on the team to validate each part of the project plan.

Results are:*

- Team develops or validates their Statement of Work (agreement on project definition)
- Team develops system level Work Breakdown Structure (agreement on all major project parts)
- Team agrees on a Responsibility Assignment Matrix (each core team member signs up to a piece of the project. Sometimes the core team is decided at this time.)
- Team develops an Activity Logic Network (the order in which tasks have to be done. Shows critical path, critical interfaces, and milestones.)

**To end up with these results, the scoping meeting is essential, and the right people must be on the team, including the customer.*

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Plugging the Hole: The Use of Records Awareness Training to Slow Records Loss

Records management at the Pantex Plant is a real concern; too many records are produced and very few are properly handled. In the course of a year, employees may produce several million "record" documents, as defined by 36 CFR 1220. Unfortunately, most employees have no idea that they are dealing with documents which have specific handling requirements under Federal law and can be used as evidence of decisions, actions or processes. Thus, the records may be lost or destroyed prematurely. There is a hole in the records management dam through which valuable information may be leaking.

At least one cause of this problem is a lack of understanding on the part of the general employee of their requirements for records management. An "all-hands" training class was proposed, but met with resistance due to the lost production time involved. The solution was to create a computer-based training (CBT) course to be included in the Pantex Annual Training System, which is already required for each employee.

The Pantex Records Management Awareness course answers the three "R's" of training:

- Requirements - Why are records important?
- Responsibilities - What do I need to do with my "records"?
- Resources - Who do I contact for more information?

The course concentrates on presenting information in a non-technical, often humorous manner. The CBT format allows for both the assessment of prior knowledge about records management and individual pacing of information presentation. All of this is accomplished in less than 20 minutes during a time when the employee is already committed to complete additional training, therefore minimizing the impact on production. Plans are also being considered to provide this course through the Internet or Pantex Intranet, further increasing its availability and flexibility.

Knowledge is the key to success. If general employees are to be expected to follow federal guidelines for records management, they must be equipped with the knowledge and tools necessary to complete the job. ThePantex Records Management Awareness course is at least one way of getting that information to the plant population. The "hole" may not be completely plugged, but the records management dam is no longer in danger of breaking.

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Winning the ES&H Training Game the Hard Way (Vegas-Style!)

Are you the betting kind? What kind of odds for success would YOU give on the following scenario?

- Your site has just changed major contractors.
- Your existing workforce has just been reduced by nearly 30%.
- Your primary site mission has been discontinued and the future is uncertain.
- Your company is operating under an entirely NEW contract with DOE calling for performance-based management.

And... "the shooter" has decided that ES&H compliance training should be a high priority in the new contract language!

To a seasoned Las Vegas gambler, this sounds like a "hard way" bet. The odds can be high against success. All these factors set the stage for Bechtel Nevada as it assumed the Nevada Test Site contract in January 1996. While many other issues took immediate precedence during the transition period, Bechtel Nevada was concerned about both cost reduction and having a trained and qualified workforce to attract new business.

This presentation will show how Bechtel Nevada's Training and ES&H organizations worked together against a "stacked deck" to deal with these tasks:

- Identifying current ES&H requirements through the Necessary and Sufficient process.
- Applying those requirements to the current workforce.
- Providing low-cost, quality training to meet those identified needs.
- Selling top management on computer-based training (CBT) as an effective delivery method with high ROI potential.

Like any Vegas employer, a primary concern for Bechtel Nevada was to reduce the cost of doing business at the NTS (you know, increase the "edge" for the house!). Any effort at improving training compliance (and lowering the odds of accidents/sanctions/audits) had to fit with the company's overall cost reduction strategies. We will discuss how the company overcame difficulties including a reduced training staff, an ineffective outsourcing effort, and a constantly changing matrixed organizational structure to address these issues. We will also provide tips and techniques on how we got line management to accept its responsibilities for training and cooperate in addressing training deficiencies. Finally, we will show how the "table game" of CBT (our biggest gamble yet!) became a major part of the effort by bringing areas of training deficiency into compliance and providing impressive cost savings in the process.

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Helping People Understand Change: Creative Ways to Bridge Organizational Awareness and Training

It seems like all training is rooted in some type of change within our organization. Procedures change. Policies change. Needs change. Times change.

One of the challenges that keeps echoing throughout all training events is the challenge of effectively communicating and understanding "change" within an organization. Todd Conklin and Doug Dick have spent the last year working closely with Dr. James Barker, USAFA School of Management, in researching more effective ways to explain and process the change phenomena in a training environment. The result of those discussions and research is the

use of a very clever and effective model that helps trainees better understand, and more importantly, better manage "change" in the classroom and in the workplace.

Mr. Conklin and Mr. Dick are renowned for funny, yet informative, presentations. This class promises to be the best (and funniest) yet. Don't miss the chance to steal some new delivery ideas and an effective way to model the change process for any topic.

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Occurrence Reporting SIG Cost Savings

The Occurrence Reporting Special Interest Group (OR SIG) has been in existence for about five years. Since its inception, the OR SIG and its many task teams have provided multiple products and services that have benefited the occurrence reporting community. During this short presentation, these products and services will be summarized to provide an estimate of cost savings and cost avoidances.

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Re-Engineering DOE Oversight of Contractor Training at Savannah River

DOE oversight of nuclear facility training and qualification programs includes consideration of the following drivers:

- Performance-Based Contracts; ES&H Performance Indicators and Self-Assessment
- Revision to DOE O 5480.20 (Requirements for SAT and Application of Graded Approach)
- Implementation of the Graded Approach and Systematic Approach to Training (SAT) using DOE-HDBK-1074-95
- Implementation of guidelines for evaluation of nuclear facility training programs using DOE-STD-1070-94 & Savannah River (SR) Handbook for Evaluation of Training and Qualification (T&Q)
- Implementation of Malcolm Baldrige Evaluation Factors at SR with Technical Assessment Guides
- Continuing Training Guidelines DOE-STD-1060-93
- Savannah River Implementing Procedure 5700.6.12b, SR Technical Assessments

The challenge is to include elements of all the above in a single assessment for each nuclear facility per year and at the same time meet DOE line requirements for programmatic T&Q oversight. In the last year, contractor T&Q oversight has re-engineered both process and product so that *more can be done with less.* The *more* means that DOE oversight of contractor T&Q will involve validation and verification of contractor self-assessment (including quality assurance audits), DOE Line facility-specific surveillances and walkthroughs (performed by facility Technical Specialists and Facility Representatives), and any outside agency assessment (e.g., EH ES&H site training assessment). *More* also means efficient assessment, only one, to determine if DOE requirements are being met (including CFRs, Orders, Standards and good practices). *Less* means a staff of two Training Administrators to act as Site T&Q Specialists, available to DOE line for consultation on training issues, to track and trend any site-wide T&Q strengths and weaknesses, and conduct programmatic oversight of Site T&Q for all of SR nuclear facility programs.

Process and Product Cost Reduction Strategies
DOE Line Divisions have assigned a nuclear Facility Technical T&Q Specialist (FTS) who conducts routine nuclear facility specific surveillances. Results of these assessments are factored into DOE SR Office of Training Site Technical Specialist (STS) nuclear programmatic assessments. The Site T&Q Manager (Director, OT) can trend problem areas and provides Technical Assessment Guides (TAGs) for the Site. Consistency and efficiency result. OT can then design programmatic assessments that are focused on issues needing attention and can "smart sample" T&Q activities. Less time and personnel are needed for conducting assessments. In addition to TAGs,

checklists for evaluating a Systematic Approach to Training, continuing training, and prescriptive order compliance requirements have been developed and applied consistently.

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Personalized Training Programs for Quality Management Professionals

The Quality Management Group at Los Alamos National Laboratory furnishes quality management professionals throughout the institution to help our clients meet a broad spectrum of needs. Because of the wide diversity in knowledge, education, and skills needed be individual clients of our professional, developing an effective, group-wide quality management training program for our service providers is a challenge. We present the details of an initiative to involve our employees in all aspects of creating and executing individual training programs that are highly customized by each employee to ensure relevance and cost effectiveness. We will present our experience to date with the system, which has been operating for approximately one year. We will further discuss lessons learned and identify common features of the approach that may benefit other organizations.

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Self-Directed Work Teams: Management Fad or a Viable Method for Improving Business Performance?

Self-Directed Work Teams. What are they? Can they really work? Who's doing them? How are they different from a Work Group? Or from a Team? Do they magically happen, or is special support needed? Are they **really** a viable method for improving my business performance?

In today's fast-paced, ever-changing, cost-cutting, technology-driven business environment, tapping into the *human* asset is one of the few resources available to us for improving business performance (and largely untapped, at that).

If you are considering the use of Self-Directed Work Teams (SDWTs) to improve your business' performance, or are already working in or managing in a teaming environment, join Kadi Davis and Chris Wiprud for this virtually lecture-free, experiential workshop on Self-Directed Work Teams. Through this experiential adventure, you will increase your awareness of what SDWTs really are, examine real-life examples of SDWTs in action, be provided "facts & data" indicating the effectiveness of SDWTs, as well as uncover the kinds of support being provided by companies with successful SDWTs in place. You will also be able to differentiate between SDWTs, Teams, and Work Groups, and come to realize some teams are teams in name only . . . in which case business performance is rarely improved.

In addition to the experiential learning, upon completion of the workshop participants will receive a take-home resource. The SDWT Resource Guide includes a plethora of information on *where to go for more information*, including:

- Top 10 Recommended Resources on SDWTs
- More Examples of SDWTs in Operation
- Books on SDWTs
- Articles and Presentations on SDWTs
- Web Sites on SDWTs
- Training Courses, Tools, and Other Educational Opportunities Related to SDWTs

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Coach, Counsel, Communicate: A Refresher Workshop for Managers and Supervisors

The role of managers and supervisors is both challenging and complex in the DOE system. Not only are they required to be leaders, but they are also expected to be coaches and counselors. To successfully fulfill each of these roles, a variety of management skills is required. One of the most important skills is communication. To support managers and supervisors in this area, the Oak Ridge Operations Training and Development Division has developed a refresher workshop entitled "Coach, Counsel, Communicate." Through the use of humor, props, and interactive exercises, the workshop assists participants in refreshing communication skills that are necessary for successfully coaching and counseling employees.

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So You Want to Outsource: Key Lessons Learned at Rocky Flats

In 1996, Kaiser-Hill (K-H) Training Oversight and Integration (TO&I) outsourced the general training implementation function at Rocky Flats. The activities were planned and executed to meet the specific goals for training set out in a departmental Program Strategy document.

The outsourcing was accomplished on an extremely fast-track schedule, in fact, one which was widely acclaimed to be impossible to achieve. Working in close coordination with the Procurement, Economic Conversion and Legal departments, the presenters sequestered themselves and produced comprehensive Request for Proposal documents in about six weeks.

The structure of the bid was controversial. Offerors were asked to quote on a per-student rate for each listed class, based on historical attendance figures. Concurrent downsizing activities and union negotiations with the hourly workforce served to complicate the scenario for bidders. Many bidders declined to submit offers, but a surprising number of consortiums presented their documents on schedule.

Carefully structured criteria made technical and financial bid evaluation straightforward and efficient. The successful bidder was actually notified ahead of the published schedule. The successful bidder achieved a seamless transition in less than three weeks, and is performing at or above expectations. Significant savings in the cost per student hour delivered were demonstrated in the first quarter of the contractor's performance. Improved efficiencies in class scheduling, records management activities, and instructor utilization are being demonstrated. In addition, a strong, positive attitude shift has been demonstrated by the subcontractor at all levels of the organization.

This presentation will focus on the key elements in the make/buy decision process, the performance-based request for proposal, built-in incentives for innovation and strategic planning/coordination issues.

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Progress with the Technical Qualification Program

The Technical Qualification Program is making steady progress toward the full Program implementation date of May 1998. Progress continues to be reported quarterly in the Technical Personnel Performance Indicator Report using a variety of tables and graphs. Some recent changes have also been implemented to further improve the Program. These changes include the following: the addition of the Senior Technical Safety Manager and Quality Assurance Qualification Standards, the elimination of the Technical Manager Functional Area, and adding a requirement for project managers at defense nuclear facilities to qualify to a second Functional Area, in addition to Project Management. Individuals affected by these changes have been granted a one year extension, until May 1999, to complete their qualification requirements

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Contractor Involvement in Corporate Approval

The completion of the Strategic Alignment Initiative #44 for the Corporate approach to training leads the federal offices to look to the Department's extended family to go beyond their own needs and look at the corporate needs of all the DOE family. During the past years, Training Resources and Data Exchange (TRADE) and Performance Improvement Network (PIN) representatives, as well as Energy Facility Contractors Group (EFCOG), have been briefed on how the corporate approach has been implemented on the Federal side. Discussion will center on the approach the DOE contractors could (or are) pursuing to contribute to this corporate approach.

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The TA-55 Educational Advancement Initiative: A Case of Site-Specific Needs and Solutions

The Educational Advancement Initiative (EAI) at TA-55, Los Alamos National Laboratory, is our response to the current and future needs of the Nuclear Materials Technology (NMT) Division, and to meet the anticipated demands of the Department of Energy for the next century. Primarily authored by NMT Division, the EAI seeks to provide on and off-site educational opportunities to its personnel and to those of other groups at TA-55 in order to achieve benefits in several ways: 1) a more flexible and upwardly and horizontally mobile workforce, 2) a workforce that readily satisfies all the DOE fundamental requirements in technical and scientific areas, and 3) help facilitate movement toward a workforce that reflects the Laboratory's diversity objectives.

In implementing the EAI, we have considered the status of the current workforce and the future needs of the division. Collaboration with two major New Mexico universities and three northern local colleges is instrumental in developing the most accommodating course curricula. We have emphasized the necessity to work closely with organizations within Los Alamos National Laboratory that have established programs in place regarding career development. For example, we are working towards expanding a Laboratory advanced study program to include

non-exempt personnel. Non-academic educational career enhancement tracks are also being explored, especially in the area of mentoring.

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Calculating the Costs of Training

Good management of any organization requires constantly challenging operational costs and seeking methods to reduce those costs while continuing to deliver needed products and services. These challenges become more acute in an era of shrinking budgets and most Training Departments are beginning to feel severely pinched. Accurately calculating training costs will serve both to identify potential areas for savings and to aid in the defense of proposed budgets.

This workshop will focus on calculating the costs of training as seen by the operations office. A costing model will be proposed and training managers from several sites will apply the model to their organizations in general, and to two specific training programs. A break-out session will follow the presentations to help participants apply the model to their situations. The workshop will conclude with an open discussion on the model's applicability and usefulness.

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Using the Intranet to Establish a Virtual Shopping Mall for Training Products and Services

The Center for Continuing Education at Lockheed Martin Energy Systems in Oak Ridge is using the Intranet to provide a multitude of products and services for its customer across the Lockheed Martin Energy Systems and Energy Research complex. In addition to traditional web applications the Center is providing courses and proficiency exams as well as training records via the internal network. The programs developed by the Center have been very well received by its internal customers and the potential for further development and use is very promising. This presentation and demonstration will share lessons learned and success stories regarding the project. Of special interest in this presentation may be the handling of tests using this electronic medium.

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Establishing Performance Measures to Calculate Return on Investment in Training

The Center for Continuing Education at Lockheed Martin Energy Systems in Oak Ridge is working with new methods to establish performance measures as a part of the analysis phase of the ISD model. Just as you must establish good objectives for measuring learning, the establishment of good performance measures is critical to measuring business results and eventually calculating return on investment for training and development programs. As typically applied, the ISD model is more inwardly focused. As a result, it does not lend itself well to Level IV (business results) evaluations. This presentation shows how to address this situation. This approach enables the training department to enhance its credibility by establishing measures geared to the business results of the organizations they serve.

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Manager Safety Training Designed by (Surprise!) the Managers

One of FDH Training's goals is "to provide customer-driven training services in a quality and cost-efficient manner." Manager Safety Training is presented by the Environmental, Safety and Health Training (ES&HT) team to managers and others in leadership roles across the Hanford Site on an annual basis. Training is intended to heighten management's awareness toward both identified and potential safety issues and concerns.

In October of 1996, ES&HT completed a Level III (Kirkpatrick Model) evaluation of this training. Following a review of data collected via survey, the team conducted telephone interviews with 25 students. This was followed by a facilitated focus group meeting with five managers. From all the data collected and reviewed, the ES&HT team designed the 1997 version of the training.

This presentation will detail the Level III evaluation process, design of the 1997 training based on listening to and incorporating the managers' expressed needs and desires, and feedback received to date regarding the new course format and content.

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Cross-Training of Health and Safety Professionals

In the current climate of downsizing and reduced budgets, safety and health (S&H) professionals are being called on to be more skilled in a broad spectrum of technical disciplines. In response to this need, Lockheed Martin Energy Systems, Inc., a Department of Energy contractor, has recently developed several "cross-training" modules for S&H professionals. The modules are designed to assist in the cross-training of industrial hygienists and safety engineers. The ultimate goal of the cross-training is to enable S&H professionals to perform 80-90 percent of the required functions of a subject matter expert in the field. Modules for eighteen subjects have been developed including an overview module for safety/risk and an overview module for industrial hygiene, as well as specific modules for toxicology, lockout/tagout, electrical safety, improving health and safety performance (incident management), temperature extremes, ergonomics, incident prevention/investigation, machine guarding, chemical/biological hazards, asbestos, bloodborne pathogens, confined spaces, construction safety, elevated

work, fire safety, HAZCOM/lab standard, and others. Each module includes formatted lesson plans, participant manuals, and computerized graphics. The modules were chosen using a tabletop analysis/design exercise with S&H subject matter experts participating. The modules have been enhanced using pertinent training aids such as viewgraphs, slides, photographs, and examples of real-life lessons learned scenarios. Most of the modules are designed to be between two and four hours in duration. Some of the modules have been placed on the World Wide Web instead of and/or in addition to traditional stand-up classroom instruction. Web-based training offers the advantage of being readily available for training and as a resource for future references and review with all the training located in one place. In addition, specific questions can be e-mailed to SMEs and answered via the Web. Finally, many of the modules have been awarded certification maintenance points for certified S&H professionals.

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Make the Mentoring Connection: How to Establish a Mentoring Program

It has been said that there are two ways to learn; through experience, or through the wisdom of someone who has already made the journey. As many Fortune 500 companies have demonstrated, a formal mentoring program provides the opportunities for experienced individuals to share their wisdom with other employees as they make career decisions and learn about their jobs, their organizations, and themselves. The DOE Mentoring Program Model provides a cost-effective mechanism to implement a formal, structured, and facilitated mentoring program.

During the concurrent session, the DOE Mentoring Program Model will be presented with all supporting implementation materials. Key program assumptions and decisions will be discussed. Step-by-step implementation strategy will be presented. Lessons learned will be covered and participants will have the opportunity to ask questions and share concerns.

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Showing a Return on Investment for a Health and Safety Program

This presentation will focus on showing a return on investment for Health and Safety (H&S) programs. A H&S Manager must demonstrate the value of H&S in business and dollar terms for the program to be enthusiastically supported by executive management. The traditional method of evaluating the costs associated with a lost-time injury will be reviewed to show direct and indirect dollar losses, such as medical costs, lost time, lost production, and training of replacement workers. OSHA illness and injury statistics will be briefly reviewed in terms of evaluating a H&S program against Bureau of Labor Statistics annual compilations. Workers' Compensation (WC) insurance premiums will be discussed, including rates based on percent of payroll, actual vs. expected losses, and experience modification rate. Means of influencing WC rates will be discussed, such as State incentive programs, drug testing, and job classifications. Factors assessed by general liability insurers will be reviewed including safety meetings, H&S staff, and field audits. Use of near-miss reports as a tool to assess trends and potential dollar losses will be discussed. Loss control documentation and ISO 9000 performance measures will be discussed as a means to improve the H&S management system.

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Mortgage Reduction Model for the Waste Management Program

The Office of Waste Management is looking at how to identify cost savings opportunities to carry out its mission of treating and disposing of stored wastes. One approach involves analyzing the cost attractiveness of several alternative funding scenarios (e.g., accelerated, constrained and safe storage funding). It is anticipated that by looking at the relative "costs" of these alternative investment strategies against funding profiles, opportunities for long-term cost savings will be revealed.

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Promoting and Measuring ES&H Performance at Sandia National Laboratories

Although there are abundant sources of information describing "how to" develop performance measures, few methods are practical to implement. Most methods, if followed, would result in hundreds of measures and armies of data collectors. The challenge has been to develop a set of performance measures which account for all management concerns within a critical few measures. Significant progress has been made toward developing a critical few measures for Environmental, Safety and Health (ES&H) in the Department of Energy (DOE) andSandia National Laboratories (SNL) Annual Appraisal Agreement.

The effort to improve performance measures was initiated a few years ago as part of the ES&H Oversight Pilot. As a result, a set of critical few measures have been identified and mutually agreed to by DOE and SNL which balance measuring outcomes and promoting positive mitigation behaviors. These measures have tough outcome expectations combined with a scoring algorithm which credits positive behaviors. The scoring algorithm considers "outcomes" first. Then where outcomes expectations aren't met, scoring factors are applied to evaluate severity of the outcomes and effectiveness of mitigation efforts. The scoring algorithm balances the subjective value of various mitigation efforts with success or failure to achieve desired outcomes. The critical few measures are based on the key strategic performance objectives for ES&H.

Rather than establishing new objectives each year, a set of high-level ES&H objectives have been identified which are relevant from year to year. The scoring factors for each performance measure encapsulates the expectations about "how" to achieve them. The measures are reviewed jointly each quarter with key personnel from SNL and DOE, resulting in routine assessments of performance and a higher level of assurance. The roll-up of scored measures generates a much more objective measure than previous methods used at SNL.

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Training Needs Assessment Data as the Basis for Business and Strategic Planning for the LANL Training Business Plan and Process Improvement

The newly formed Training Integration Office at Los Alamos National Laboratory and the Quality Management Group designed an electronic training needs assessment to underpin the design of the LANL Training Business Plan and overall training process improvement. The results of the needs assessment pilot that was critiqued by the Laboratory's Division training generalists as well as the input of the Laboratory Leadership Council, senior managers who provided data to the needs assessment, will be shared. The Quality Management Group that compiled the assessment information with the Training Integration Office will outline its implementation into the Business Plan. We will focus on successes and lessons learned in this new joint endeavor.

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The Radiological Safety Coaches' Role in Enhancing Worker Radiation Protection Skills

Safe Sites of Colorado, L.L.C. has implemented a Radiological Safety Coach pilot program to improve worker radiological safety (RS) skills through enhanced on-the-floor training. The program adopts a philosophy of a one-on-one and small-group mentoring approach to improve both worker compliance with RS requirements and Radiological Control Technician knowledge necessary to provide technical support to these workers.

Additionally, this program enhances communication between those performing work and the RS program staff and management removed from the day-to-day activities, with special emphasis on listening to the workers. This presentation details the nature of the Radiological Safety Coach program, showing different techniques used during the program's implementation. A discussion of the program measures-of-success and evidence of RS program improvement will demonstrate the utility of the Radiological Safety Coach program.

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Lessons Learned after Two Years of Web-Based Training

Training at Lawrence Livermore National Laboratory consists of standard lecture, CBT, workbooks, video training, web training, and more. This case study will address the lessons learned while designing, creating and managing web health and safety training over the past three years. The following areas will be covered:

- Training at Lawrence Livermore National Laboratory
- Why implement web training?
- What are the pros and cons?
- What are the costs involved?
- How can I present this to management so they will "buy into it?"
- Do employees like web training?
- How can I tell if the users learned the information?

- How do I manage web training?
- How can I present this to the trainers so they will not be threatened by it?
- How long does it take to develop a comprehensive training program?
- References to get started

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Dissemination of Lessons Learned from a Facility's Perspective

With the increase in available methods for sharing information via the "information highway" comes the challenge for facilities to determine those events and lessons learned that are applicable to their facility. This presentation will discuss the methods used at Hanford's Plutonium Finishing Plant for determining which events and lessons learned are applicable to personnel at our facility. The presentation will also discuss the various methods used to disseminate the lessons learned information to the applicable organizations within the facility, as well as how the facility disseminates its lessons learned externally.

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Making Sense out ofOSHA's Program Evaluation Plan (PEP)

OSHA has recently issued draft compliance language establishing a safety and health Program Evaluation Plan (PEP) including leadership and employee participation, proactive workplace analysis, accident and record analysis, hazard prevention and control, emergency response and safety and health training and education. This session will provide an overview of the PEP and its impact onOSHA's new proposed safety and health management standard.

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On the Outsourcing of Training

Spurred by severe budget cuts for FY1998 and guided by the apparent success of a previous, smaller privatization effort, Fluor Daniel Hanford Training investigated the possibility of outsourcing the entire organization. All training functions were reviewed for commercialization viability with regard to scope, prospective savings, minimizing impacts to staff, expected quality of the programs, funding mechanisms, etc. Also, a variety of outsourcing methods were examined: sole sourcing, parent company transfers, and competitive bidding.

This presentation will describe in detail the analysis conducted, ensuing complications, decision criteria, and ultimate results of the outsourcing plan.

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Performing to Agreements

In July, 1996, Fluor Daniel Hanford, Inc. (FDH), was awarded the Management and Integration contract for the Hanford site. This new contract was based on "pay for performance" instead of the "Cost plus Award Fee" method used with the previous Management and Operations contractor. Together with its Department of Energy - Richland Operations Office monitor, the FDH training organization signed 19 performance agreements. Typical agreements were: incorporating Lessons Learned into training programs; a 98% compliance rate with training requirements for personnel in TIMs related positions; reducing training redundancies site-wide; and completing and the HAMMER staffing plan. While DOE gave some leeway to the contractor, the basic "profit" was approximately $1 million per performance agreement. Naturally, the profit incentive drove attention to the performance agreements to the highest levels in the company, and in DOE-RL. This presentation will describe some of the results of operating under performance agreements, at least for the FDH training organization, difficulties with definitions, with measurement criteria, successes, failures, and impacts on FY1998 performance agreement negotiations.

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Allocating the Costs of Training

Frequently, some fraction of training costs are allocated to an overhead account. Also, frequently, overhead accounts are perceived as measuring burdens or obstacles to accomplishing "real work." Overhead accounts then become inviting targets for those wielding budget axes.

Is training, in fact, an overhead function? Better question, how much of training is an overhead function? This presentation will describe how training costs have traditionally been allocated at Fluor Daniel Hanford; on the steps the training organization has taken to assign costs more accurately; and the impacts of those reallocations to training budgets, scopes, and schedules.

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A Holistic Approach to Waste Management Training

One goal of the Pantex Waste Management Department is to ensure that personnel are qualified to carry out their assigned waste responsibilities. As new federal, state and DOE requirements were addressed, the training program evolved to the point that the typical waste generator was scheduled to take up to four different waste management courses. Past audits repeatedly identified individuals who were current in some, but not all required waste training.

We determined that four work groups generate or have responsibility for the vast majority of regulated waste. A specific course was developed for each of the work groups. The existing courses were maintained for individuals who did not fall into one of the four work groups but required training. Through a major enhancement to the training program, the majority of Pantex personnel now benefit from the merging of several waste-related training courses into one comprehensive training course developed for their work area.

The advantages of this approach proved to be that it:

- Allowed for the incorporation of job specific information including “lessons learned” from the surveillance program for their work-area. A reduction in the costs associated with worker errors are anticipated.
- Clarified the integration of the waste programs by addressing all waste issues at once.
- Simplified plant-wide compliance with training requirements. With this approach, personnel complete one course instead of four.
- Reduced training time by eliminating any duplication of background information and generic waste management principles which were presented in each class.

By increasing the effectiveness of the worker in carrying out their assigned waste responsibilities, reducing the actual time in training, and ensuring full compliance with all training requirements, our cost reduction strategy for the Waste Management Training Program is a true success story.

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Targeted Development: A Competency-Based Approach

Sandia National Laboratories Targeted Development Program combines a set of 15 unique management competencies with a four stage model of career development. These two models form the basis of a Competency-Based Development class that makes use of a 360 degree feedback assessment instrument and a "Targeted Development Portfolio".

Participants in the class distribute the assessment instruments to their immediate manager, a selection of peers and direct reports, and themselves, The data from these assessment instruments are used to produce a very detailed report describing the participant's behavior relative to the competency set and the four stages model. This report provides individual scores, corporate norms, and external norms for each competency which enables participants to gauge strengths, weaknesses, and skill gaps. Using this information, a draft of a personal development plan is developed using the Targeted Development Portfolio. The Portfolio provides a matrix of training and non-training development opportunities cross-indexed against the competencies. A reassessment occurs 12-24 months later to determine growth and change.

All managers are encouraged to participate, but in two cases it is part of a required curriculum. For staff interested in moving into a career in management, the Competency-Based Development class is one of three classes required to be considered eligible for promotion. For new managers, this class is one of three that must be completed within one year of promotion.

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Performance-Based Management of ES&H at NREL

This presentation provides the National Renewable Energy Laboratory’s (NREL) experience and lessons learned while developing a performance-based management (PBM) system and simultaneously implementing the DOE initiative for Integrated Safety Management (ISM).

Most DOE facilities implement ISM through a gap-analysis process that identifies the differences between the model and the mechanisms actually in place, followed by changes to rectify the differences. While this leads to improved mechanisms for identifying and controlling work hazards, it frequently does not address the higher level management mechanisms such as strategic and operational planning. This can result in overall management processes that do not maximize business performance.

Through a self-initiated process, NREL began redesigning its management system in 1995, with PBM design being the eventual outcome. This design provides integrated management processes as well as a methodology to convert strategic plans into measurable performance goals. It also provides a mechanism to align all levels of Laboratory operation, thereby promoting the highest levels of strategic and operational performance.
When the ISM initiative was introduced during the PBM design process, NREL identified an opportunity to have a truly integrated ES&H process at all levels of Laboratory management. While a traditional gap-analysis process was applied to the more mechanical aspects of hazard identification and control, a similar process was applied to purely management functions via the PBM design team. Components were included in the management design that provide a mechanism to establish and measure ES&H performance goals at all levels, while keeping these goals in balance with other internal and external factors.

This presentation will address benefits and drawbacks of the PBM design as applied to ISM, as well as lessons learned that should assist other facilities in implementing similar programs.

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The Federal Training Mall on FedWorld

The Federal Training Mall is the most efficient, effective on-line service designed to help manage agencies' training processes, stimulate individual career growth, identify and register for government training easily.

A collaborative effort by the National Technical Information Services (NTIS) and the Human Resource Development Council (HRDC) produced a new service offering government employees easy access to on-line mall with several stores designed to benefit student, training units, and provide a marketspace for government produced training materials to be utilized by others. The Federal Training Mall (FTM) provides the federal employee with tools and training opportunities to expand their professional development. They can find federal training courses that may be offered by another federal agency, find courseware products developed by government agencies, view their own educational transcripts of courses taken through the FTM and chart their career paths to success. This valuable service will save agency training budgets, conserve federal training resources and provide the government employee greater control over their career planning.

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Office of Environmental Management (EM) Initiative: Training Improvement Partnership Program (TIP)

In an effort to establish standards and standardize core curricula for occupational safety and health training, EM-1 earlier this year initiated the Training Improvement Partnership (TIP) program. With strong support from EH, DOE field organizations, and the National Institute for Environmental Health Sciences grantees, EM has led this partnering effort to improve the quality and effectiveness of safety and health training through increased reliance on uniform core curriculum and learning objectives. Expected benefits from this program include:

- a validated process to effect continual improvement for safety and health training;
- safety and health training programs that will provide a more uniform basis for which the transition to external oversight
  can be made in the future;
- an improved baseline upon which training reciprocity and equivalency can be established;
- development of better methods to determine complex-wide training requirements; and
- lower complex-wide course development and maintenance costs.

Panel members will describe how the TIP was organized, the roles that each of the partners played in the process, and products and deliverables that have been completed. HQ/DOE staff will explain the importance of the TIP in relation to the Ten-Year Safety and Health Plan and the transition to external safety/health oversight. Field office representatives and contractor staff will provide actual and potential cost savings data resulting from the program. Following a 25-minute presentation by the panel, a 20 minute Q&A session will follow.

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A Method for Developing Performance Measures Used by the Chemistry and Metallurgy Research (CMR) Facility Management Team at LANL

Why measure performance? Have you ever tried to decide is the processes that you are implementing are effective? Are they working? Are they helping your organization turn its strategies into achievable and measurable actions? Do you know how and what to improve to make things work better? We all struggle with these questions, but there are ways to measure the performance of your processes that will help you manage more effectively.

Measurements are important! Organizations that make random changes based on bias or whim, rather than data, have no way of knowing whether their improvement efforts are successful. Measurements help organizations keep clearly focused on concrete opportunities for improvement and progress toward accomplishing goals. Measurements that establish a baseline, describing the current state within an organization or process, are the basis for well-defined improvement goals.

The CMR Method: This presentation provides an overview of the CMR Facility Management Team's performance measurement method. This method was designed to develop appropriate measurement strategies to better understand and manage safety, customer satisfaction, and facility operations. The CMR Facility Management Team is currently using this method to develop measures and gather information to help monitor, understand, and improve our integrated safety management program.

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Managing for Results at the National Renewable Energy Laboratory (NREL)

This presentation focuses on how the National Renewable Energy Laboratory (NREL) is implementing performance-based management (PBM). At the Laboratory, PBM is used as a systematic approach for aligning goals, objectives, and structure and driving desired performance results in support of NREL's mission. It does this by:

- Integrating key management processes
- Translating NREL's vision and strategic intent into operations
- Providing an avenue for feedback and learning
- Aligning all levels of the Laboratory to improve strategic and operational performance.

Specifically, we will discuss how NREL uses the balanced scorecard to measure performance and why this tool is being implemented at all levels of the Laboratory, including teams and individuals.

Streamlining and improving NREL's operations continues to drive the PBM process; chief among the goals is positioning the Laboratory to function smoothly within the prevailing business environment and creating an entity that can meet, head on, the needs of numerous stakeholders. We will address how PBM has improved operations, key successes that have resulted, and the continuous process of designing and refining PBM to fit our organizational environment.

NREL is one of ten U.S. Department of Energy national laboratories and the only one dedicated solely to developing and capturing the enormous potential of renewable energy and energy efficiency. Since its inception in 1977, NREL's mission has been to lead the nation to a sustainable energy future by developing renewable energy technologies, improving energy efficiency, advancing related science and engineering, and facilitating commercialization.

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Creativity and Bureaucracy

As budgets decrease and workloads increase, the need for creativity becomes greater and greater. It is the means by which we are able to invest ourselves personally in our work, and share enthusiasm with our audience and co-workers. It is how any process remains fresh, organic, and alive; and it is what keeps our work and institutions vital. However, the creative process cannot be assumed. It has its own requirements that must be honored. This process will be explored through a lively exchange among audience participants and through the insights of the famous and not-so-famous, their writings, research, music, and film. Participants will first help to identify the needs for creativity in all activities, including scientific, technical, and administrative pursuits. Then through personal experiences and descriptions, they will examine different elements of the creative process. They will be able to see how personal this process can be. Some elements are universal, while other elements may apply only to a few individuals. In the end, these creative elements will be applied to the institutional and technical work of our everyday world.

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A Process for Improvement: Documenting the ISD Process for Your Customer

Is it Miss Scarlet in the Library with the rope or Mr. Plum in the Hall with the gun? Figuring out a SOP (Standard Operating Procedure) manual is often as much a mystery to the curriculum department as it is to the instructors and everyone else who has to use it.

To unravel the mystery, we began by gathering sleuths (instructional designers) from two detective agencies (contractors). The investigation focused on the existing evidence (current SOP). We narrowed the investigation to relevant clues (instructions) and simple language (non-spy talk).

The detectives resolved to decrease the scope of the puzzle (weight of the tome) by separating it into several pieces (support materials). Once the mystery was solved, the detectives were all commended (with no pay raise) and promoted to chiefs (temporary instructors) to pass on their experience to their coworkers and clients (real instructors and DOE training staff).

Now both agencies (contractors) will be training their detectives (to write more lesson plans) in the same fashion to ensure none of our special agents are CLUEless in Albuquerque.

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Meeting the Technical Training Needs of the DOE's Transportation Division Programs

How did the AlliedSignal Technical Training Section streamline DOE's training programs? What methods were used to develop an On-the-Job training program? How did AlliedSignal incorporate Computer Based Training technology? How did they raise employment hiring standards for DOE contractor personnel:? How did they reduce the cost of developing and implementing effective training? These are just a few of the questions that will be addressed in this presentation.

In response to an economic climate of uncertainty, financial cutbacks, and reorganization, AlliedSignal Technical Training Section has implemented cost-effective training programs using various methodologies to meet customer needs. The Technical Training Section is tasked byDOE's Transportation Safeguards Division (DOE/TSD) to provide training to various contractor agencies in support of TSD activities. Program include communications system operation and maintenance, mechanical maintenance and repair, fleet readiness, defensive driving, and emergency operations.

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Building Partnerships with Private Sector Laboratory Accreditation Systems

Building partnerships with private laboratory accreditation systems will save participating laboratories money and enhance their ability to have data accepted worldwide.

Recognition of a third party accreditation system will allow laboratories to reduce the number of government and private audits conducted in their facility. This reduction of duplicative and redundant audits will save the affected laboratories significant resources. U.S. industry, driven by concerns for safety, performance and use of "just in time" manufacturing principles utilize laboratory accreditation to meet their objectives for quality data in decision making and to evaluate and approve testing capabilities of their in-house labs as well as suppliers.

It would be crucial for private laboratory accreditation system to have mutual recognition agreements (MRA's) both internationally and domestically to ensure that data from U.S. accredited laboratories are accepted in this country and throughout the world.

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So What Is an Integrating Management Contractor Anyway?: Lessons Learned on the Bleeding Edge

Over the past 2 ½ years, Kaiser-Hill and its prime subcontractors have developed an evolving understanding of their roles under the Integration Management Contract of 1995. Early team-building efforts were effective during the initial transition from the M&O contract environment, but proved inappropriate to achieve the performance expected by DOE. This presentation will discuss the continuing lessons learned by the Kaiser-Hill training group in its phase shift from primary implementor to overseer and integrator of the site's training program. Topics for focus include directive vs. consensus approach, the strikingly different roles of standards and requirements, and what to do when you become a "turncoat" in the eyes of your former peers.

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Functional Area Trending Program

The Facility Function Based Trending Program provides WVNS with a comprehensive source of data in support of site Environment, Safety, Health, and operational activities. The program is structured around a data base which incorporates virtually all oversight and event data generated by, or relating to, Project activities. This includes sources such as Occurrence Reports, Critique Minutes, Surveillance and Audit reports, Self-Assessments, external reviews (DOE, NRC, etc.) and deficiency documents. Once compiled, this data is used to support a myriad of site management programs such as the quarterly Quality Trend Analysis Reporting and Management Report, Price Anderson Screening, and Integrated Oversight Program Planning. By incorporating information such as DOE Order 232.1 Cause Code, Site Facility, Functional Area (DOE Configuration Guide), Document ID, date, High Level Waste related activity, etc. into this database, facility or program specific queries may be performed and subsequent customized reports may be generated to provide detailed information for facility and activity specific risk based improvement or assessment campaigns. This uniquely integrated program has been widely lauded by the DOE at the Area Office, Field Office and Headquarters levels as an effective comprehensive project management tool.

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Privatization and Transition from DOE to NRC Regulations

The Department of Energy (DOE) nuclear complex supporting the U.S. defense mission was born in a cloak of secrecy in the late 1940's and early 1950's. By 1964, the military enriched uranium stockpile was full and production at the DOE Uranium Enrichment plants re-focused on making fuel elements for the emerging commercial reactor power industry. However, over time these DOE plants gradually lost world market share due to the non-competitive cost of production. Overall market share was projected to drop from the initial 100 percent share in 1970 to 20 percent by 1999.

In 1992, the Energy Policy Act provided for privatization of the plants to save the fledging industry from extinction and required that NRC provide a certificate to the two plants once they "qualified" under regulation 10 CFR 76. In 1993, the United States Enrichment Corporation (USEC) was formed as a government corporation to manage the plants until they were NRC certified and a privatization plan could be completed. On March 2, 1997, after efforts such as the flowdown of over 6,000 requirements and upgrade of 1,500 procedures, NRC certification was achieved!

Three important principles emerged in that journey that absolutely must be satisfied by controls of processes:

- To do nuclear work in any U.S. community, you must operate accident-free/error-free because the public has no graduated scale to judge events in a nuclear plant.
- To achieve safe and economic operations, you must merge safety and production into a single, fully integrated, entity.
- Change to a nuclear safety culture is a monumental undertaking because workers don't naturally relate to low probability high consequence accident prevention.

After achieving the certification by NRC and having recently received national recognition at the Paducah Plant by Industry Week Magazine as one of the Top 10 Best Plants in America, we stand on the threshold of becoming a fully private, for-profit nuclear facility. President Clinton approved the USEC Privatization Plan, and within 6 months to a year, we expect to be privately owned.

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Making Business Decisions Using Trend Information

This presentation covers the basics of performance trend analysis of operational data. The results of the trend analyses are then used to support business decisions that will lead to improved business performance. An overview of Statistical Process Control and Deming management theory will be included. Dr. Deming's 14 points, the Plan-Do-Study-Act cycle, and a flowchart of performance indicator use will be included. The focus will be graphical analysis using control charts and Pareto charts. One control chart will be made as an entire group, then attendees will break into subgroups to perform trend analysis of actual DOE performance data, and will determine the recommendations to make to management based upon the performance data. A group leader will report the findings to the rest of the workshop. Completed graphs will be shown that are in use at Hanford. A brief overview of how to pick business related performance indicators will be included.

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Self-Assessment Process for the Ohio Field Office Training Programs

The OHO-FEMP and the OFO-TD conducted a comprehensive training assessment. The assessment was in accordance with the OHO-FEMP's Technical Management Plan (TMP) and Fernald Implementing Procedure (FIP). The assessment was a comprehensive performance-based self-assessment designed to last one working week. When team members were identified, the assessment process was conducted in two primary phases. Phase I consisted of pre-assessment data gathering in the form of a detailed questionnaire (checklist) that was completed by the OH Acting Training Management.

The OHO-FEMP TMP under the Tasks and Responsibilities identified in Appendix D 4.0 Training and Qualification Requirements Document. Table 4.1, Task and Responsibilities List for Training and Qualification from DOE Order(s):
DOE 360.1 Training
DOE 5480.20A - Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities

DOE-OH Training Procedures and Policy Numbers:

OH-4.1.06	Training and Qualification Program Procedure
OH-5.1.05	Training Registration Process
OH-40.T001	Technical Qualification Program
OH-40.T002	Training and Qualification Policy for Managing and Assessing Contractor Training Programs

The responses from the questionnaire were used by the team to construct focused lines-of-inquiry checklists for the Phase II Implementation. Phase II consisted of the actual training self-assessment.

Phase II of the assessment began with the OHO-TD Staff being interviewed by the FEMP team members. Questions were primarily directed to the Acting Training Manager although other team members from OFO-TD answered questions as well. The responses were reviewed and used as tools to objectively evaluate roles and responsibilities and management systems within the OHO-FEMP and OHO-TD.

Team members met at a later date to begin assessing those activities that had a real effect on the performance of both organizations. Key activities were identified using the Norminal Group Technique (NGT), whereby team members brainstormed observations and perspective findings. This technique generated five categories: (1) Roles and Responsibilities; (2) Information Management Systems; (3) Communications; (4) Records Management; and (5) Document Approval. Focusing on the five categories, the team assessed existing OHO-FEMP and OHO-TD management systems and processes to evaluate compliance with DOE orders, training policies and procedures.

The team used formal meetings and cc:mail as communication mechanisms to streamline four concerns and numerous findings and observations into one concern with five major areas of noncompliance, ten finding and 13 observations.

The Concern
A brief description of the concern stated that established Management Systems for the Ohio Training and Qualification Programs and for OHO-FEMP are in need of updates and improvements to be in compliance with DOE orders, Policies and Procedures and the Ohio Field Office Policies and Procedures. The concern has five major areas of noncompliance in the areas of: (1) Roles and Responsibilities; (2) Information Management Systems; (3) Communications; (4) Records Management; and (5) Document Approval.

Proposed Corrective Actions
The FEMP assessment staff set-up a meeting with the TD staff to review findings and to put forth a corrective action plan. The plan was completed and submitted to Senior Management for action. The OH-TD and the OFO Human Resources Division has been tasked to resolve the ten findings within a specified time period.

Lessons Learned
Some lessons learned included:

- Making assessment schedules high priority.
- Ensuring team communication is open and that findings and observations are thoroughly discussed and understood by everyone.
- Ensuring review of the final report includes all team finding and observations and that the final report is reviewed by the team prior to release.

In closing, the most important lesson learned is that DOE Training Organizations can provide quality customer service and management systems by adhering to DOE orders and DOE Best Practices for Training Programs.

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Cost Reductions Strategies and Cross-Training Initiatives at Lockheed Martin Energy Systems

At Lockheed Martin Energy Systems (Lockheed Martin Energy Systems) in Oak Ridge, Tennessee for the fiscal year of 1996, downsizing activities affected the training programs at the Center for Continuing Education (CCE) which provides compliance training for Lockheed Martin Energy Systems.

During downsizing, it was determined that qualified trainers existed that could be cross-trained and could be made available to provide necessary compliance training. Likewise, the use of subcontractor personnel to supplement the existing staff, was a win/win situation.

The focus of this presentation is to address the lessons learned by cross training existing staff and partnering with subcontractor personnel to provide training at a more reasonable cost.

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"MAPping," a Path to Legacy for the DOE Rocky Flats Field Office

The U.S. Department of Energy's Rocky Flats Field Office (RFFO) is reinventing the way it does business by returning to the basics: Mapping its critical processes to ensure quality and integration while focusing its executive staff on the practices of the "learning organization." Through sustained discipline and commitment, leaders at the RFFO are developing an organization that is culturally vital and productive in the face of the challenges of an ever-changing environment driven by factors often beyond their control.

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Cost Reduction and Improved Performance through Digital Imaging and Scanned Data Entry

This presentation will include a demonstration of the Digital Imaging and Forms Processing system through which Mason and Hanger has been able to reduce staffing costs and file space requirements, while improving data entry performance. This system incorporates an ordinary PC, a high-speed scanner and off-the-shelf software to create digital images from incoming record documents while extracting data for upload directly to the training records database. The digital images are used for day-to-day access to personnel training records documentation, while the direct data upload significantly reduces data entry delays and errors.

For example, under the old system, a day's worth of trainee test results from the CBT center would be delivered to the records section for posting to the database at about 4:00 in the afternoon. Data entry would occur during the next day, over the course of three to four hours. Certification and qualification updates based on the new data would not take place until that night, resulting in a minimum two day delay between training completion and its reflection in qualifications and certifications. Using the present system, the day's test results are scanned and uploaded to the system within 20 minutes of receipt, and the qualification and certification updates appear in the following morning's reports. Posting errors have been reduced by approximately 60%, with most of the remainder attributable to trainee errors, not system errors. Staffing to support over three thousand active trainees has been reduced from two full-time data entry personnel to only one, who now has time to assist in other records maintenance functions and to provide customer service. Although not currently fully implemented, the digital image filing system is expected to reduce our paper file footprint by 60% or more, while providing an inexpensive backup of quality (legal) records for disaster recovery purposes.

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Implementation of OR PIT Recommendations - Office of Defense Program's (DP) Perspective

Summary Report of the Occurrence Reporting Process Improvement Team (OR PIT) was published in November 1996 and Defense Programs, DP-45 has evaluated the recommendations. This evaluation has prompted the introduction of new products, enhanced existing products, and caused modification of the frequencies of publications and distributions of targeted audiences. This presentation will share DP's experience with implementing the OR PIT recommendations.

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Implementing a Multi-source Feedback System On-line

Los Alamos National Laboratory (LANL) is in the process of implementing a multi-source feedback process as part of its performance management system. This process allows each employee to select up to 25 people to evaluate their performance in key behavioral areas. With 7000 employees participating in the process, the potential number of ratings to process could exceed 100,000 annually. With a staff of four responsible for implementing this system, the motivation to automate as much of the process as possible is strong.

LANL has developed a Web-based application of the multi-source assessment system for use on our Intranet. Participants can select their raters on-line, with their selections uploaded into a MS Access database. In addition, selected raters can go on-line to evaluate, or rate participants seeking their input. These ratings also are uploaded into the database. The potential savings are enormous and will be discussed. A key issue for the success of this project is ensuring security and confidentiality of ratings conducted on-line. A future enhancement will be making the multi-source summary ratings/reports available to participants on-line. Target date for this enhancement is Fall of 1998.

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Testing Via an Intranet

Los Alamos National Laboratory (LANL) conducts numerous courses in safety and health awareness. Many of these courses require a knowledge test to verify comprehension of the material. Two years ago LANL developed a testing system, based in Microsoft Access, that produces a unique version of test forms, quickly scores the test, and provides trainees with a feedback report that links missed questions to specific course objectives (and page numbers for open book tests).

LANL has developed a Web-based application of the testing system for use on our Intranet. The on-line test is accessible only at specific IP addresses, and is password protected. Students who test out of training will now be able to access the test at their worksite. Issues surrounding this project include maintaining test security and test integrity, evaluating effectiveness of the testing method, and cost/benefit analysis. Future applications will include adding links from the tests to course materials (open book tests only), and overcoming security obstacles surrounding making the tests available for off-site personnel.

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The Los Alamos National Laboratory Quality, Strategy, & Resource Planning group requested a pilot process definition project to streamline existing cumbersome processes and procedures. LANL's Quality Management group provided state-of-the-art documentation in a two-page format that allows the reader to quickly view user-friendly, eye-catching bulleted lists, flow charts and graphs to define the processes and procedures. This presentation will focus on successes and lessons learned in this pilot.

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The Results of the Environmental Restoration Division's Application of the Necessary and Sufficient Standards Closure Process

The DOE Standards Committee's Work Smart Program, Necessary and Sufficient (N&S) Standards Closure Process was applied at SRS for all ongoing and planned Environmental Restoration (ER) activities to identify environmental, safety and health (ES&H) standards and requirements tailored specifically to ER work and the hazards associated with that work. After implementation, several benefits of the N&S process will be realized by ER and include (1) a more efficient way of performing ER activities while being compatible with other ER streamlining/cost saving initiatives (e.g., ASCAD™ and Expedited Site Characterization), (2) significant benefits through achieving consensus with stakeholders (e.g., workers, regulators, DOE) on a set of standards to be used for ER activities, (3) other SRS site programs will reap the benefits of ER's N&S process after adoption of the applicable process efficiencies achieved by ER, and (4) a significant potential for cost savings. Preliminary conservative estimates indicate total ER N&S savings exceed $2,000,000 per year (including implementation costs) and total life cycle costs over $20,000,000, primarily in the functional areas of quality assurance, operations/maintenance and design/construction.

Activities within the DOE complex are performed to environmental regulations, national consensus standards, and DOE orders. Sometimes, though, combined application of these regulations, standards, and orders to ER activities causes duplication of effort or burdensome requirements, especially since most ER activities at SRS are simple and have relatively low hazard levels (DOE orders are generally geared toward high hazard nuclear facilities). To avoid these inefficiencies, the requirements and standards to which ER activities are performed were evaluated via the DOE sponsored N&S process.

The resultant set of standards was identified by a team of SRS and non-SRS (commercial) experts, independently confirmed by SRS functional departments and approved for all Environmental Restoration work activities concerning known hazards at typical waste units based on the Federal Facilities Agreement. The ER N&S standards are being implemented through a revision to the SRS Standards/Requirements Identification Document (S/RID) which is the listing of ES&H standards and requirements WSRC is contractually bound to comply with.

Implementation of the N&S standards will enable ER to realize several process efficiencies. For example: (1) ER work will be done more in-line with industrial standards and procedures, while still maintaining high levels of safety and environmental compliance; (2) ER will use the ER N&S Standards Computer Database for the uniform application and change control process of the N&S standards in ER documents such as criteria, design, procurement, and subcontract documents; and (3) ER will use the ER Hazards Baseline Grouping Assessment as a centralized information source of all ER hazards which will streamline hazards analysis and revision.

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Sharpening Your Management and Leadership Skills

This 90-minute interactive workshop is designed to help managers and team leaders develop and sharpen the skills that are necessary in leading successful teams into the 21st century. Participants will identify their own natural management style and discover how that affects the way they manage people. They will also see how their own values and beliefs play a strong role in the development of their style. After identifying their natural style, participants will learn techniques to use in different situations to effectively get people to follow them.

This course will teach necessary coaching skills for every level of management, such as giving positive and negative feed-back and effective delegation processes.

Each participant will also come away with valuable communication skills that will increase their effectiveness in building team relations and trust. They will learn and practice different listening techniques and discover why listening is so difficult and yet so important in building strong relationships. Participants will also practice communication skills used in resolving conflict and getting people to follow the vision set forth.

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Training Evaluation: Measuring Return on Investment

With the Malcolm Baldrige Quality Award Criteria and the classic Donald Kirkpatrick model on levels of evaluation as standards, Lockheed Martin Energy Systems' Center for Continuing Education (CCE) has been evaluating programs and services to define performance indicators and measure the effectiveness of training. The team has been involved in all levels of evaluation work including: ensuring measurable objectives are incorporated into programs, validating tests, conducting test item analyses, and post-program effectiveness studies including transfer of learning and measuring business results. This presentation is an abstract from a four-day course developed by Dr. Jack Phillips and offered by CCE. The objectives for this presentation are as follows:

- Assessing your organization's climate for obtaining program results.
- Developing an evaluation design for a program.
- Determining the appropriate level to evaluate a program's effectiveness.
- Selecting an approach for isolating the effects of a program.

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Talking Smart: Getting Your Point Across Clearly and Concisely

Business performance rests to a great extent on the effectiveness of the spoken word. Spokespersons for any organization must be able to present their critical ideas in a persuasive, clear and concise way. Audiences are impatient with dull, rambling, and pointless presentations. Learning a simple but powerful way to organize a presentation that will influence audiences to accept your point of view lies at the heart of this session. Conference presenters, instructors, and other content experts realize that attaining clarity and conciseness in their presentations along with readable visuals is actually giving good customer service, i.e., they will better meet audience expectations and needs, and will reap the rewards of their efforts with audience buy-in.

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Utilization of Occurrence Reporting Data to Achieve Risk Reduction

The U.S. Department of Energy utilizes the Occurrence Reporting and Processing System (ORPS) to report abnormal events and conditions within the DOE complex. Although this reporting system is a deficiency driven reporting system, the data contained in the ORPS database may be utilized to achieve risk reduction to the workers, the public and the environment, from operations conducted in the DOE complex. This concurrent session will be presented from the DOE Facility Representative perspective.

This session will focus on utilizing the data in the ORPS database and comparative local data and information resulting from surveillance reports, assessments, self-assessments, appraisals and oversight reports from outside entities. The data in the ORPS database will be used for comparative data in two ways. First, as a comparison against the complex and secondly, as comparison against local past performance (including or assessment information). These comparisons will be used to identify areas of strength and areas for improvement at the local level. The anticipated outcome of such reviews will be identifying areas for improvement in the conduct of operations and management systems such as work controls, hazards assessments and lockout/tagout systems. Areas of sustained excellence should also be highlighted in such reviews, as well.

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DOE Technical Standards Program—Tutorial

The DOE Directives System includes a hierarchy of documents that describe how the Department does work. There are four levels of documents in the hierarchy: policy, requirements, guidance, and technical standards. Technical standards are the foundation upon which the DOE documents hierarchy is based.

Technical standards are used to transfer technology and standardize work processes to produce consistent, acceptable results. They provide specific methods and techniques on "how to" implement the Department's requirements. The methods and techniques addressed in technical standards involve a range of activities, including classification of components; delineation of procedures; specification of materials, products, performance, design, or operations; and definitions of terms or measurements of quality and quantity in describing materials, products, systems, services, or practices. By using them, the Department and its contractors can avoid costly duplication of effort and rework. Also, the use of technical standards supports the Department's continuing transition from an expert-based, compliance-oriented work culture to a culture committed to applying the standards that best fit the work and its associated hazards (i.e., the "work-smart" standards approach).

Consistent with *Public Law 104-113 (National Technology Transfer and Advancement Act of 1995)* and OMB Circular A-119 (*Federal Participation in the Development and Use of Voluntary Standards*), DOE gives preference to the use of technical standards developed by voluntary consensus standards bodies and, where consistent with the Department's missions, participates in voluntary consensus standards development activities (DOE P 251.1 and DOE O 1300.2A). These activities and the preparation of needed DOE technical standards are managed through the DOE Technical Standards Program. This tutorial will discuss the elements of the Technical Standards Program, including program objectives and procedures for identifying, developing, coordinating, approving, and maintaining technical standards. In addition, the tutorial will address recent program initiatives related to Internet access to TSP information and recognition of DOE "topical" standards committees, including the TRADE Special Interest Groups (SIGs).

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Requalification Training: One Size Does NOT Fit All!

The INEL, now INEEL, consolidated from a five-contractor site to a one-contractor site over three years ago. Since then, over 2000 employees have taken opportunities elsewhere. The changes that resulted from the consolidation and shrinking workforce had profound effects on our Emergency Response Organization (ERO) and ERO Training Program.

In December of 1995, all ERO members currently on duty rotations/rosters were "grandfathered" into their positions. The grandfathering of those personnel would result in a varying level of knowledge of Emergency Management concepts and application. Prior to 1995, each facility was operated by a different contractor and the ERO members had all been trained to the processes for response by their own contractor organization.

Beginning in June of 1996, the Lockheed Martin Idaho Technologies Company Emergency Preparedness Department provided the first ever consolidated ERO Requalification sessions. What a learning experience for both the training staff and the trainees! The sessions were delivered to all currently "qualified" ERO members, regardless of position. Our initial training program is geared toward teaching only what is required to do the job according to position. We did, however, learn during these sessions that many of the trainees were experiencing their first taste of ERO training.

The topics covered in the 1996 Requalification sessions included Emergency Management Concepts, Activation and Deactivation of the ERO, Emergency Notifications, and Facility Hazards Assessment, to name but a few. In addition to those topics, lessons learned from the 1995-1996 Drill and Exercise Program documentation were addressed. The sessions were designed NOT to provide initial training, but RETRAINING and when we got out into the field and discovered the range of the level of understanding (not all that we thought it might be) we did some quick adjustments and a lot of individualized coaching was performed by our instructors. That worked well for the people with little knowledge of their ERO positions, but not so well for those that were experienced and had attended some type of initial training. We also discovered that all of the information was not useful to ALL of the trainees.

During this presentation, we would like to share with the Department of Energy (DOE) and DOE Contractors our lessons learned and our new approach to retraining for the 1997 ERO Requalification.

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Sharing Lessons Learned Within DOE

The purpose of this session is to identify and describe the DOE Lessons Learned Program and the tools that are currently available to effectively capture, share and use lessons learned. The presentation will include: a brief overview of the DOE Lessons Learned Program; a description of key lessons learned information sources; and an explanation of how lessons learned can be used for continuous improvement within DOE sites, programs, or offices

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DOE Lessons Learned Program

The purpose of this exhibit is to:

- Communicate the existence of the DOE Lessons Learned Program and the Society for Effective Lessons Learned Sharing;
- Outline the tools and benefits offered by the Lessons Learned Program;
- Provide a source without the time constraint of a limited presentation;
- Present a lessons learned video that provides useful background on the program; and
- Provide handouts with additional information.

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"Breakthrough" to Increased Value and Reduced Cost

Battelle Memorial Institute has a long-standing record for providing science and technology solutions to government and industry. The Pacific Northwest National Laboratory, which Battelle has managed for the Department of Energy (DOE) since 1965, has been a major factor in that success. In late 1994, there were several key internal and external drivers that triggered Battelle to partner with the local DOE Richland Field Office in launching a comprehensive, two-year initiative aimed toward becoming the science and technology "Provider of Choice in the missions and markets it serves." A key part of that initiative was to establish aggressive new budgets for overhead costs supported by a set of "Breakthrough" teams chartered to systematically remove waste and inefficiency from key support processes. These breakthrough teams generated more than 130 improvement ideas that have led to sustainable overhead cost reductions of $40 million (almost 20%).

The methodology used by the breakthrough teams was designed to reinforce this partnership and included four major phases:

- Understanding and addressing costs
- Developing "breakthrough" ideas
- Implementing ideas
- Transitioning to continuous improvement

In this presentation, we will discuss each of these phases in more detail emphasizing the critical success factors and lessons learned.

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Training Performance Indicators Which Focus on Performance

Meaningful Training Performance Indicators (TPI's) are a critical evaluation tool for measuring the transfer of learning from the training environment to employee performance. Typically, TPI's tend to focus on "bean counting" items (i.e., number trained, training costs, etc.) rather than on measuring the training-job performance linkage. TPI's established for the Tritium Facilities at the Savannah River Site focus on this job performance effect via the examination of facility operating incidents and conduct of operations drill performance.

Incident assessments include evaluation of root and contributing causes determined to be training related which are compared against corrective actions and total number of facility incidents. Causes considered training-related include inadequate training, insufficient practice/hands-on experience summaries and the development/ implementation of conduct of operations facility drills (non-Emergency Preparedness). All are trended and evaluated against pre-established, approved facility goals.

Conduct of operations facility drills evaluate the effectiveness of operations personnel as a team as they respond to abnormal and emergency facility conditions. These drills are a level below Emergency Preparedness and evaluate scheduled implementation, data exchange, configuration management, shift response, team work, and acceptability of results (drill ratings). Results are further evaluated to ensure that our conduct of operations drill program provides effective team response training as well as measuring participant performance on various scenarios.

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Computer-Based Training (CBT) Showcase

The CBT Showcase will be presented as a concurrent session again this year in response to the previous attendees' reviews. This is an opportunity for conference attendees to hear about advanced training technologies from the developers and learn some computer based training (CBT) secrets. The topics change year to year to reflect new technologies and strategies which represent the current trends being utilized within the DOE complex. Numerous mini presentations will be presented simultaneously and participants will chose which to attend. Each mini presentation will be presented at least two times (depending on the number of topics this year) to allow attendees to learn more on their favorite topics. SIGATT has had great success with this format and presentation in the past. The presenters will supply all of the hardware/software in order to illustrate their topics. There will be a question and answer period immediately following each mini presentation.

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Exploring Safety Systems with a Mouse

TA-55 Safety Systems training is computer-based training which uses a simulated laboratory room image as an interface to guide learners to information on nine major safety systems in the plutonium facility. The training covers the Criticality Alarm System, Continuous Air Monitoring System, Ventilation System, Electrical Distribution System, Confinement System, Paging System, Facility Control System, Fire Detection System, and Fire Suppression System. Topics which are covered include the

purpose of the system, how the system operates, where it is located, how the system protects the worker and the environment and worker responsibilities. Pre-test, post-test, objectives and summaries are also available. The CBT software runs under Windows 95 with an increased memory, a specialized video card, and additional software drivers.

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Management Walk Around: Getting Out and About

The TA-55 Plutonium Facility enacted a Manager's Walk Around program to increase facility safety, efficiency in operations, and Management involvement in daily operations. The program's success has improved these three aspects, as well as positively impacting relations with DOE and DNFSB auditors. After two years proving the program at TA-55, Los Alamos National Laboratory has incorporated the program for all Groups and Divisions. The training at TA-55 is half-day, followed by a mentored walk around. When a walk around is performed, the manager records his/her observations on a common computer file. The novice observer stays focused during his/her walk around through the use of locally prepared Guidance Cards ("55 for TA-55"). The speaker for this presentation is the originator and instructor of the program, and promises to keep the audience interested and involved.

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Institution-Wide Customer Focus Process at Los Alamos National Laboratory

In this presentation, participants will learn about the institution-wide customer focus process at Los Alamos National Laboratory. This process includes customer relationship building, collecting and responding to the voice of the customer data. Upon completion of the presentation, the participant will be able to:

- discuss the role of customer relationship building and customer satisfaction in maintaining organizational strength in times of change
- describe different models for collecting customer feedback, depending upon the nature of the organization (operational, programmatic technical)
- compare and contrast different approaches to customer satisfaction taken in the private sector
- list common pitfalls in the area of customer focus.

Los Alamos adopted the vision of being a "customer-focused, unified Lab where science serves society" in 1993. In 1994, many individual organization began to collect customer feedback and a small institution-wide initiative was formed for programs. In 1995-96 institution-wide initiatives were implemented and evaluated for both operations and programs. In 1997, we are doing an assessment of lessons learned in customer focus and designing a new integrated set of customer-focus processes. The assessment includes extensive listening Lab-wide on the subject of customer focus processes. Benchmarking of best-in-class institutions has been completed.

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The Fusion of Organization Performance-Based Management with Performance-Based Contracting

Designing and implementing a successful performance-based management system in any organization is, in itself, a difficult task. Leaders of Federal organizations would believe they were remarkably successful if their organizations effectively developed and linked performance measures and metrics to objectives and goals established in the organization's strategic planning process, and in-turn, to annual budgets in accord with GPRA requirements; or if they were able to lead a change in the organization's culture from one of compliance to one that embraces accountability and a quest for quality as determined by customers. To design, develop and implement a successful performance-based management system in an organization in which nearly all, or a significant share of the work, is performed by contractors, however, is a much greater challenge.

The Office of Training and Human Resources Development (HQ/DOE/HR-31) sponsors professional skills training to DOE and DOE contracting personnel. Much of this training assistance, especially that in project management and in contracting management has been provided by Atlantic Management Center, Inc., (AMCI). In July, 1996, HQ DOE/HR asked AMCI to design and develop training and management assistance to DOE organization in the development and implementation of performance management that would be consistent with the *DOE Guidelines for Performance Measurement* and the GPRA. AMCI has since developed and refined a series of performance measurement management and technical assistance/training interventions which not only assist DOE organization in implementing organization performance measures, but which also are aimed at gaining the support and buy-in of contracting organizations. This provides the framework for then translating these measures into actual contract documents.

Since July 1996, AMCI has assisted four DOE organizations to succeed in this effort. Proposed paper and presentation will include description of AMCI's methodology, and examples of lessons learned and implementation successes in DOE.

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Performance-Based Contracts

This presentation will cover current issues and lessons learned when performing within a performance-based contract for the U.S. Department of Energy. Topical areas that will be discussed during the presentation are:

- Why Contract Reform? This portion of the presentation will cover the intent of performance-based contracts along with its pros and cons. In addition, information will also be provided concerning the shifting of DOE's mission and risk allocation for the DOE and its contractors.
- Establishing Performance Criteria/Incentives. This section will focus on establishing realistic and attainable performance goals and a discussion about subjective vs. objective performance criteria.
- DOE's Responsibility in Establishing Performance Incentives. This portion of the presentation will provide information on the value of the work performed vs. the reward, establishing a credible audit trail, documenting objective evidence of completion of goals, and lessons learned in establishing specific performance goals.
- Results of Competition Through Implementation of Performance-Based Contracts. Has the implementation of performance based contracts on DOE sites driven down costs and produced more efficient efforts? Information will be discussed concerning the results of this cost saving measure.
- Movement from Cost Reimbursable Performance Contracts to Fixed Price/Lump Sum Contracts. This portion will cover possible future contract reforms in the DOE.

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Return on Investment

As the funds for travel and training have decreased with DOE's downsizing, and the focus on accountability has grown, managers are no longer satisfied with knowing how much employees learn or how they liked the training they attend. Increasingly, managers need to know how training will directly affect job performance and benefit the organization as a whole. This presentation will discuss the return on investment results of an approach used by the Oak Ridge Operations Office Training and Development Division, for responding to those issues.

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Golden Nuggets: On Line Leadership Development

Participants in the On Line Leadership Development Program recover an average of three hours per day of discretionary time; that's one full-time equivalent (FTE) for every three participants. The "Golden Nugget" is that extra boost of energy we get when we have ownership of our goals and satisfying relationships.

This program improves the participants' interpersonal skills and effectiveness in resolving conflict. Consequently, stress is lowered, efficiency is increased, trust is improved, and job satisfaction is higher. By taking ownership for their personal growth, individuals continue their development after completing the program.

The program approach is:

- Teams work together for the entire program.
- Each topic is introduced in an eight-hour workshop using workplace situations.
- Participants work on improvement commitments between sessions.

After three months the participants concluded that:

- Skills developed continue to be used.
- Personal development continues after the program ends.
- Stress is lower than before attending the program.
- Efficiency improvements are maintained

The participants see the relevance of the program. In the survey, 100% concluded that they have learned lasting skills making them more effective than before the program. For 72% of the participants, the increase in efficiency has remained constant or improved during the three months.

These results are important. On Line Leadership Development is effective at improving interpersonal, supervisory, and management skills and behaviors needed to be more effective. Program costs are recovered within two months and the organization continues receiving returns on the investment through the avoided costs gained from increasing efficiency by one FTE for every three individuals attending the program. The return on investment from On Line Leadership Development supports organizations forced to meet the challenge of doing more with less.

There are golden nuggets out there and this program helps us to surface them.

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Workshop on Developing "Fuzzy" Performance Indicators

"Fuzzy" performance indicators provide meaningful and timely measures of performance in areas often thought to be immeasurable. Using the techniques demonstrated in this workshop, participants will be able to develop "real time" trends of elements such as: commitment, safety awareness, and accountability. "Fuzzy" performance indicators quantify vague concepts allowing them to be measured, and then used to evaluate performance. The process improves communication enabling "team" members to better understand the mission and goals, achieve higher efficiency, and improve their satisfaction.

There are five phases in the process. 1) **Brainstorming** generates words and phrases that describe the ideal situation. 2) **Synthesizing** has the participants develop three to eight characteristics that focus on the ideas previously generated. During 3) **Prioritizing**, the participants distribute one hundred points (100%) between the characteristics. The 4) **Evaluating** phase measures the organization's current performance on each of the characteristics. Finally, the group works together 5) **Analyzing** how best to improve performance of the organization. Throughout the development process, discussions clarify terms and enhance communications; thus improving the group's understanding, consensus, and ownership of the indicator and the organization's needs. Once an indicator is developed, progress can be easily measured.

"Fuzzy" performance indicators are being used at several DOE sites to obtain meaningful performance measures. A leadership development program for a senior management team was initiated at a Hanford facility in response to needs identified in a "fuzzy" performance indicator measuring "Outstanding Leadership." The characteristics supporting this indicator include: communications, high standards, responsibility and authority, people skills, vision, and delegation. This and other performance indicators will be shared in the workshop.

Managers can improve ownership, commitment, effectiveness, and efficiency by developing "fuzzy" performance indicators in their organizations. This workshop demonstrates the process and highlights the techniques used to generate "fuzzy" performance indicators.

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DOE Partnering for Return on Investment

This exhibit is a partnership venture between DOE operations and program offices. The partnership spotlights tangible return-on-investment practices generated by the Department's training organizations. Materials displayed on the table top provide TRADE participants with examples of Federal training tools and procedures. These include computer-based training demonstrations, accessible web site designs, and course materials.

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Making the Most of Make or Buy

Brookhaven National Laboratory's approach to Make or Buy analysis is unique. The Laboratory uses the Make or Buy study to perform Process Improvement and Benchmark to improve performance, as well as to conduct a make or buy analysis.

Plant Engineering developed an Operational Improvement Plan (OIP) to use for the make or buy studies of the Custodial and Heavy Equipment Maintenance and Operations (HEMO) functions. The OIP consists of two phases: Process Improvement, and Make or Buy. The Process Improvement phase requires the establishment of a team with representation from management, operators, and bargaining unit management. The team analyzes the function, including customer satisfaction and benchmarking studies. The goal is to identify and implement improvements to increase the competitiveness of the function as performed by the Laboratory. The team submits a report to management, including a recommendation as to whether to keep the function in-house. If the recommendation is to keep the function in-house, the Make or Buy Analysis is complete.

If outsourcing is recommended, discussions are held with the bargaining unit to explore avenues to keep the work in-house - process redesign or change of work rules. If this is unsuccessful, the Make or Buy Phase begins. This phase includes the usual subcontracting process. After bid evaluation, management and the team can decide to keep the function in-house. If the decision is to continue toward outsourcing, it would occur after bargaining unit negotiations. If agreement cannot be reached regarding ways to competitively keep the function in-house, it is outsourced.

The OIP offers long-term advantages. If the function stays in-house, it is at an improved performance level; if outsourced, the performance expected of the provider is raised. The team approach fosters communication, and educates all team members about the performance and costs of the function. Whatever the outcome, it is based on data that all have seen and understand.

PROGRESS TO DATE:
The Custodial and HEMO teams recommended keeping these tasks in-house. The Administrative Services Division has applied the OIP approach to the Automotive Fleet Management and the Travel Group make or buy studies. The Safeguards and Security Division Police Group is also using the OIP approach.

KEYS TO SUCCESS:
- Laboratory and bargaining unit management buy-in.
- An open process. Implement a communication plan to keep affected employees up to date on the team's progress.
- Training in process improvement and benchmarking techniques.
- Facilitator support to guide to the team on teamwork issues, quality tools and to be a "neutral party."

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Automated Training Effectiveness

This presentation will demonstrate how Mason and Hanger gathers Training Effectiveness information and summarizes the information electronically for quick analysis and feedback through the use of scannable forms. Standardized or custom forms can be easily created, scanned and summarized. Information is trended by instructor, class, course, plant, etc. Both general and specific information can be gathered, depending on need.

A key feature (being developed) is the ability to integrate feedback from several sources and automatically identify weaknesses and develop plans to correct them. This feature addresses poor on-the-job employee performance, the quality of the training, and training effectiveness. We use this automation to help identify additional information gathering activities, root causes, corrective actions, and the effects of those actions.

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Individual Training Plans

How do professionals learn how to do their jobs? They attend contractor-developed training courses, mentor with top performers, perform job activities under direct supervision, do self study, and continue their college education. These training activities (and others) are used to build the competencies needed to perform complex jobs.

At Pantex, curriculum-based training has been supplanted with a method based on Individual Training Plans (ITP). An employee and his or her manager develop an ITP by:

- identifying employee-specific job activities and required competencies
- evaluating the employee's qualifications based on education, experience, prior training activities, etc.
- selecting training activities to eliminate deficiencies and reach development goals.

Our technical professionals base their ITPs on Qualification Standards which contain the Job Activities and Competencies required to perform the job. In addition, completion of the ITP is linked to the employee's performance appraisal.

During the presentation we will discuss how ITPs are used to:

- enhance employee performance and productivity
- reduce required training
- make training programs employee-specific
- shift from curriculums to competencies
- evaluate employee qualifications
- encourage alternative training methods (mentoring, self study, etc.), and
- tie personal development to performance appraisals.

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Comparative Events Data and Significance Analysis of Major DOE Program Offices

To improve the utility and consistency of the ORPS process, DP has developed an operations oriented-significance indexed event data base. Approximately two and a half years of data now reside in this INTERNET accessible data base. The system facilitates DOE-wide data trending analysis for organizational entities and individual facilities.

Event-severity averages for select bins are normalized and compared to similar operations. Areas considered in need of enhanced visibility, along with those deemed to be designated as generic issues, are delineated. A consistent approach as to what is important is maintained by having a constant core group of individuals evaluating severity and significance. This consistency will aid avoidance of risk of a self-fulfilling prophecy in the data analysis.

This presentation will provide comparative events data including significance analysis and also will assess the areas of strengths and weaknesses of major Program Offices.

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Center for Human Reliability Studies

Since 1986, the Center for Human Reliability Studies (CHRS) has produced documents, brochures, and other products for the Department of Energy (DOE) on various subjects including: human reliability, personnel security, psychological testing, violence in the workplace, and right-wing extremists.

This TRADEing POST display illustrates the assistance CHRS provides for DOE and DOE contractors through research and analysis in many areas of interest. Copies of products (documents, brochures, and videos) produced by CHRS will be available for conference attendees to review. Attendees may request that copies of these products be mailed directly to their work location using the order form available at the display.

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Welding /Brazing Testing, Certification, and Records Program

The welding and brazing work performed at the Pantex Plant covers a wide range of operations and construction practices. The maintenance department's welding program has been developed to use nationally recognized code books as a guide in the production of sound welding and brazing processes. These processes are in turn used in all critical, important, and balance of plant welding and brazing operations conducted by the maintenance department. Our program is geared to each individual craft shop's identified operational requirements and are multi-faceted in nature. Quality control, safety, program requirements, process' development, performance-based craft worker qualification, product inspections, and records are included in the program.

Quality control of welding and brazing base material and consumables are regulated through Pantex Plant Standards (STD.) 5075 and 5080. Maintenance department safety practices are directed by shop supervision through Internal Operating Procedure (IOP) 3007. Welding and brazing program requirements, process development, and craft worker qualification is established and done according to IOP's 1022 and 1023.

Upon Engineering request, product inspections are conducted on external contracts and drawing specifications. Record keeping documents in craft worker qualifications, product materials, and product inspections on critical and important systems are available.

An American Welding Society Certified Inspector, Mr. D.H. Beagles administers the welding and brazing program, including training, test data, and Welder Certification. Records are maintained through the FMI (Facility Management Integration) Program.

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DOE Lessons Learned Implementation Process

The process by which DOE Lessons Learned Occurrence Reports information is received, evaluated, and incorporated are detailed in this presentation. Lockheed Martin Energy Systems Red Alert # R-1997-OR-Lockheed Martin Energy Systems, K25-0201 Titled: Welder Fatally Burned is shown in our TRADEing POST display. Actions that were taken atPantex Plant in response to this Lessons Learned information is given. The immediate steps taken to alert and protect Maintenance Department Workers at our facility from a similar occurrence is shown, followed by the investigation and evaluation of our own work processes and equipment. The display includes results of the tests that were run on the flammability of Welder protective clothing. Procedure changes that resulted from the process are shown, and finally, the training that was developed and given to all maintenance personnel involved in this type work is displayed.

DOE Lessons Learned information is a vital resource of information that thePantex Plant Maintenance Department incorporates in the improvement process of our work control systems. The end result being informed properly trained crafts persons, doing their work with quality documentation enhancing personnel and facilities safety.

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360º Feedback: Measuring the ROI for Training and Other Services

- Develop the baseline study to determine the specific, measurable behaviors for individuals in each position
  - How to be assured of getting quality feedback and accurate measurements
    -- introduction to employees/participants
    -- employee involvement
    -- customizing and designing the measurement instrument
  - How to conduct the study to provide the highest quality data possible
  - How to report results that will increase the incentive for individuals to show measurable growth on professional development plans
- Calculating the direct, measurable, hard costs of training
- Measuring results after the training – the 360º follow-up study
- Expanding the applications of 360º feedback to add value with no added cost
  - Team-building and assessment
  - Individual empowerment with accountability
  - A proactive approach to organization-
    Target individuals' specific training needs to reduce time invested