Department of Energy
Washington, DC 20585

October 14, 2010

MEMORANDUM FOR DISTRIBUTION

FROM: ANDREW C. LAWRENCE Andrew C. Lawrence
DIRECTOR
OFFICE OF NUCLEAR SAFETY, QUALITY ASSURANCE AND ENVIRONMENT
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Facility Representative Program Performance Indicators Quarterly Report, April – June (Second Quarter Calendar Year 2010)

This memorandum summarizes the highlights of, and announces the availability on-line of, the Facility Representative (FR) Program Performance Indicators Quarterly Report covering the period April through June 2010. Data for these indicators are gathered by Field elements quarterly per Department of Energy (DOE) Standard (STD)-1063-2006, *Facility Representatives*, and reported to Headquarters program offices for evaluation and feedback to improve the FR Program. The full report is available at **http://www.hss.energy.gov/deprep/facrep/performance_indicators.asp**

This memorandum also announces that Mr. James Heffner has turned over FR Program Manager duties to Mr. Earl Hughes. Mr. Heffner is assuming expanded team leader duties over several additional programs within the office.

Highlights from this report are presented below:

FR Staffing/Qualification/Oversight Data
DOE was staffed at 183.5 FR Full Time Equivalents (FTEs) during this reporting period. For this quarter, a summary of the FR staffing and qualification and oversight data is:

- 88 percent Fully Qualified (DOE goal is > 80 percent);
- 92 percent Staffing Level (DOE goal is 100 percent);
- 42 percent Time Spent in the Field (DOE goal is > 40 percent); and
- 74 percent Time Spent in Oversight Activities (DOE Goal is > 65 percent).

FR Program Highlights
The Fully Qualified FR level increased from 86 percent to 88 percent during this reporting period, further exceeding the DOE goal of 80 percent. The increase continues to be attributed to several factors including a low attrition rate (three FRs for the period) FRs successfully completing initial qualification, and revised Site FR staffing analyses lowering FTE requirements.

From May 12-13, 2010, 67 FRs attended the annual FR Workshop in Las Vegas, Nevada, to share best practices and lessons learned from their respective sites. Prior to the FR Workshop, FRs were provided Readiness Review Team Member training from May 10-11, 2010. The training provided an overview and familiarized participants with DOE's Readiness Review Process, as described in DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*. Training covered the roles and responsibilities of Readiness Review team members with specific emphasis on Performance Assessment methodologies.

The FR Steering Committee holds monthly teleconferences to share information on oversight activities, issues identified, and FR program initiatives and improvements. Descriptions of these and other observations, as well as FR Program highlights, are accessible at the FR Web site at **https://www.hss.energy.gov/deprep/facrep/**. The sharing of information on these issues benefits all FRs in performing their oversight activities with the goal of providing useful feedback to the contractors to support the safe operation of DOE hazardous facilities.

Should you have any questions or comments on this report, please contact me at (202) 586-5680, or the DOE FR Program Manager, Earl Hughes, at (202) 586-0065.

Distribution:
Richard Lagdon, US
Don Nichols, NA-2.1
Frank Russo, NA-3.6
Garrett Harencak, NA-10
Gerald Talbot, NA-17
Dae Chung, EM-2
Steven Krahn, EM-20
Dennis Miotla, NE-3
George Malosh, SC-3
Glenn Podonsky, HS-1
William Eckroade, HS-1
Martha Thompson, HS-1
Mari-Josette Campagnone, HS-1.1
Patricia Worthington, HS-10
James O'Brien, HS-21
Stephen Domotor, HS-21
Earl Hughes, HS-21
William Roege, HS-30
John Boulden, HS-40
Steven Simonson, HS-40
Kevin Dressman, HS-41
Richard Day, HS-42
Thomas Staker, HS-60

Manager, Ames Site Office
Manager, Argonne Site Office
Manager, Brookhaven Site Office
Manager, Carlsbad Field Office
Manager, Chicago Office
Manager, Fermi Site Office
Manager, Idaho Operations Office
Manager, Livermore Site Office
Manager, Los Alamos Site Office
Manager, Nevada Site Office
Manager, New Brunswick Laboratory
Manager, Oak Ridge Office
Manager, Office of River Protection
Manager, Pacific Northwest Site Office
Manager, Pantex Site Office
Manager, Portsmouth/Paducah Project Office
Manager, Richland Operations Office
Manager, Sandia Site Office
Manager, Savannah River Operations Office
Manager, Savannah River Site Office (NNSA)
Manager, Y-12 Site Office

FR Program Sponsors and Steering Committee Members (electronic distribution)

OFFICE OF ENVIRONMENTAL MANAGEMENT (EM)

Facility Representative Program Performance Indicators (2QCY2010)

Field or Ops Office*	Staffing Analysis	FTEs	Actual Staffing	% Staffing	Attrition	% Core Qualified	% Fully Qualified	% Field Time **	% Oversight Time ***
CBFO	3	3	3	100	0	100	33	56	72
ID (EM)	12	12	11	92	1	100	100	47	90
OR (EM)	18	17	16	89	0	100	100	47	69
ORP	15	15	14	93	0	100	93	55	79
PPPO	6	6	6	100	0	83	83	45	68
RL	19	19	19	100	0	95	90	42	69
SR	32	32	30	94	1	77	70	31	71
WVDP	2	2	2	100	0	50	50	43	70
EM Totals	**107**	**106**	**101**	**94**	**2**	**90**	**84**	**42**	**73**
DOE GOALS	**-**	**-**	**-**	**100**	**-**	**-**	**>80**	**>40**	**>65**

* Field or Ops Office Key:
CBFO = Carlsbad Field Office; ID = Idaho Operations Office; OR = Oak Ridge Office; ORP = Office of River Protection; PPPO = Portsmouth/Paducah Project Office; RL = Richland Operations Office; SR = Savannah River Operations Office; WVDP = West Valley Demonstration Project

** % Field Time is defined as the number of hours spent in the plant/field divided by the number of available work hours in the quarter. The number of available work hours is the actual number of hours a Facility Representative works in a calendar quarter, including overtime hours. It does not include leave time (sick, annual, or other) or holidays, nor does it include special assignments greater than 1 week assigned by the Field Element Manager.

*** % Oversight Time includes % Field Time

EM Facility Representative (FR) Highlights:

- ID (EM): During observation of a portable standby generator installation, a Waste Disposition Project (WDP) FR identified an excessively tight bend radius in the electrical conductors. The electrical subcontractor was questioned on the installation and testing of the electrical conductors. A subsequent megger test indicated damage to the electrical conductors. The electrical conductors were re-installed in a different configuration and the subsequent megger test was successful.

- ID (EM): A WDP FR identified that contractor operating procedures contained insufficient direction concerning the authorization and coordination of exterior overhead door opening for a waste enclosure facility. The operating procedures did not address coordination between the work crews, meteorological conditions, radiological conditions, degraded waste containers, or the number of overhead doors that may be opened as factors for consideration prior to granting authorization for overhead door opening.

- ID (EM): A WDP FR identified that operations and supervisory personnel have not adequately controlled equipment and systems status during maintenance. In the Advanced Mixed Waste Treatment Project (AMWTP) treatment facility, a heat exchanger was damaged because personnel failed to restore the system to the normal operating line-up following maintenance. Upon occurrence of a similar event in the following quarter, the FR questioned the Production Manager concerning corrective actions needed to prevent recurrence. The FR observed the pre-job briefing and determined corrective actions were adequately incorporated into the pre-job briefing. However, upon completion of the maintenance activity, a piece of equipment was subsequently damaged because the Shift Supervisor failed to adequately verify operational status of equipment.

- ID (EM): During operational awareness tours of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) construction projects, WDP FRs noted numerous unsafe work practices/conditions by construction personnel. Examples of unsafe items included: use of cell phones and personal listening devices while operating equipment; vehicles left running during refueling operations; hoisting and rigging equipment (slings) available for use with past due inspection dates; noncompliance with battery jumping corrective actions; and direct observation of a safety belted construction worker exiting the man basket during an aerial lift.

- ID (EM): During wildland fire surveillance, WDP FRs noted the Fire Hazard Analyses waste drum stacking height restriction was not incorporated into the operating procedure, nor were operations personnel aware of the restriction when interviewed.

- ID (EM): Throughout the quarter, the assigned Facility and Materials Disposition Project (FMDP) FRs performed multiple targeted surveillances of various wet-to-dry (WTD) spent fuel transfers being performed at the Idaho Nuclear Technology and Engineering Center (INTEC). This effort included "shadowing" the contractor Management Self Assessment (MSA) and the Contractor Readiness Assessment (CRA) for the preparations for and execution of TORY IIA WTD transfers from the CPP-666 Fuel Storage Area (FSA) to CPP-749 underground vault storage. An FR identified several weaknesses in the contractor conduct of operations during the readiness reviews and the actual WTD spent fuel transfers including inadequacies related to the fuel transfer procedure and its readiness to be used, inadequacies with the hazard mitigation supporting documentation, and a failure of the contractor's Nuclear Safety Group's to evaluate for hydrogen sulfide gas prior to handling the spent fuel canisters.

- ID (EM): Throughout the quarter, an FMDP FR performed multiple targeted surveillances of the remote handled transuranic (RH-TRU) work control processes. The FR documented a continuing weakness in compliance with regulatory requirements for failing to follow the combustible loading controls specified for the Fluorinel Dissolution Process Area cell. The FR issued findings for (1) the failure to follow the Lockout/Tagout (LO/TO) Program requirements; (2) the LO/TO procedure lacking rigor; and (3) a concern with the RH-TRU Project's lack of focus on the integration of safety into Work Planning and Control.

- OR (EM): All FRs obtained 100% qualification this quarter.

- OR (EM): At Oak Ridge National Laboratory (ORNL), two 55-gallon drums were discovered that were not marked as “empty,” nor were there any labels indicating the drums’ contents. It was obvious that these drums had been setting out in the weather a long time. The contractor committed that the drums would be surveyed to ensure they were not contaminated inside or outside and that they would be removed.

- OR(EM): At the Transuranic (TRU) Waste Processing Facility, during a pre-job briefing for the glovebox work activities, the FR observed that the minimum airflow rate for a glovebox in a procedure was less than the Technical Safety Requirement (TSR). Further investigation found that the procedure air flow requirement was the minimum exhaust specified in the Fire Hazard Analysis required to maintain flammable vapors below their lower flammable limit to prevent the possibility of a fire in the glovebox. The procedure was changed to correct this issue.

- OR (EM): At the Toxic Substance Control Act (TSCA) Incinerator the opening area of the venturi scrubber was observed not securely wrapped in plastic as required to prevent the spread of contamination. Any equipment or system component removed from the contaminated process area to the Radioactive Material Storage Area should be covered with plastic or stored in the container to prevent the spread of contamination. This deficiency was immediately corrected.

- OR (EM): At the TSCA Incinerator, the accessible area within the swing radius of the rotating structure of the crane was not securely posted with safety tape to prevent personnel from entering the work zone. The work area was posted the previous week, but the safety tape was broken and on the ground. This deficiency was immediately corrected.

- OR (EM): During the review of the Documented Safety Analysis (DSA) for the Melton Valley Solid Waste Storage Facilities, an FR noted that frequency data for a drum impact event should have been listed as “anticipated” rather than “unlikely.” This resulted in a revision to the hazard evaluation in the DSA.

- ORP: Approval and release of work package CLO-WO-07-1134 was not adequate in that the work package was released for work even though it contained outdated TSRs and Abnormal Operating Procedure requirements. This was not detected through the release process by the operations engineer and the shift manager.

- ORP: During a review of the documentation (post-fieldwork) of work package TFC-WO-010-0698, "241-C-107, Remove Heated Vapor Probe at Riser 3," it became evident that a requirement of Radiological Work Permit CO-587 was not met. Specifically, Section 6, *Personal Protective Equipment*, which required the use of a hood while working inside the high contamination area (HCA) when "a worker's head has a potential to contact contaminated surfaces" was not met.

- ORP: During the pre-job briefing for TFC-WO-010-0698, "241-C-107, Remove Heated Vapor Probe at Riser 3," the senior supervisory watch (SSW) was not present as required by the work record entry established by the Joint Review Group.

- ORP: During the removal of the C-107 heated vapor probe, several radiological control deficiencies were identified by the FR that warranted improvement. Contractor oversight has since been calibrated to be more attentive to radiological control practices and crew briefings on the deficiencies have been completed.

- ORP: An FR communicated to the contractor that the on call FR was not consistently notified during drills exercised to practice response. Following that feedback the contractor properly reported to the on call FR during drills.

- ORP: The "Work Release Checklist for OE's" did not accurately reflect current DSA/TSR requirements. Subsequent to identification by the FR, the document was updated to reflect the current DSA/TSR controls. This is a repeat of a similar issue identified by the FR approximately one year ago.

- ORP: An FR observed that a propane tank storage cabinet was not adequately protected from vehicular traffic in accordance with 29 CFR 1926 requirements. Additional vehicular protection (i.e., concrete barriers) was installed around the storage area as a result of this observation.

- ORP: While observing work in the Tank Farms, an FR identified issues with Authorized Worker locks with associated tags that were not filled in correctly. Authorized Worker locks prevent the inadvertent lifting of a LO/TO energy control while workers are potentially exposed. The tags were illegible and some were not filled in with required data. This deficiency was followed by several other minor outliers in the following months. The FR pointed this trend out to contractor management, and that the trend indicated higher level problems were imminent. After that meeting, a higher level problem did occur, and contractor management held a safety stand down, which included a 32 page briefing/retraining for all LO/TO workers. The correction of these deficiencies reduced the risk of a worker being exposed to dangerous energy during the course of work.

- RL: An FR identified a potential issue, which was confirmed by the contractor, which could result in an inaudible organic vapor monitor alarm on the boom of the excavator during TRU retrieval activities under certain conditions.

- RL: An FR identified an industrial safety issue (tripping/slipping hazard) during TRU Packaging Transporter payload assembly.

- RL: An FR identified that TSR Administrative Controls (AC) for Abnormal Container Management Program (ACMP) were not followed/met.

- RL: The Deactivation and Decommissioning (D&D) FR identified safety issues related to personnel working off of elevated platforms and the inconsistent use of safety/guard chains at access points leading to the platforms. Examples were found in the U-Canyon, Fast Flux Test Facility, and 272-E.

- RL: The D&D FR identified system breeching into contaminated uranium trioxide (UO3) systems without requiring the use of respiratory equipment which resulted in an uptake exposure to D&D workers. Two instances occurred during this past quarter which led to DOE requesting a corrective action plan from the contractor as documented in a recently-performed work control surveillance.

- RL: The Environmental Restoration Disposal Facility (ERDF) FR identified a LO/TO violation (lack of lock or lock equivalent and lack of documentation of lockout equivalent) during leachate valve change-out.

- RL: The ERDF FR identified lack of alignment and controls in fall protection between Washington Closure Hanford LLC (WCH) and Stoller's WCH-approved fall protection program around manholes.

- RL: The FR identified inadequacies in the ACMP implementing procedures that were corrected resulting in improved procedures and implementation.

- RL: An FR discovered that the Plateau Remediation Contract (PRC) issues management process Condition Reporting and Resolution System was not followed when a significant issue (TSR AC noncompliance) was identified at Waste Receiving and Processing Facility.

- RL: The Soils and Groundwater Remediation Project FR identified chemical management inventory control issues.

- SR: Assistant Manager for Closure Project (AMCP) FRs identified contractor issues in Radiological Controls, Hazardous Energy Control, Work Control Configuration Management, and Conduct of Operations.

- SR: AMCP FRs provided support to the DOE Office of Enforcement visit for the D-Area Arc Flash Incident and F-Area Acid Spill.

- SR: An Office of Laboratory Oversight (OLO) FR identified a conflict with Work Order instructions and an approved "Use Every Time" procedure prior to the start of a surveillance requirement functional test.

- SR: An OLO FR identified excessive packing leakage on a safety significant fire water pump.

- SR: Nuclear Material Operations Division (NMOD) FRs worked with the contractor in HB-Line to identify the need for a shield to deflect sharps to protect glovebox gloves during new can testing.

- SR: NMOD FRs identified corroded duct work in an HB-Line chemical mixing room. The end cap of a 12-inch diameter exhaust duct appears to have been made from galvanized steel instead of stainless steel.

- SR: OLO FRs identified issues with Infrastructure Services operators performing Independent Verification of fire system valve position.

- SR: OLO FRs identified valves in the fire protection system that did not have signs indicating that the valves were under status control and required Shift Operations Manager notification for repositioning.

- SR: OLO FRs were instrumental in review and oversight of the DSA/TSR changes and implementation for start-up of the Federal Bureau of Investigation Radiological Evidence Examination Facility laboratories.

- SR: OLO FRs were instrumental in review and oversight of the DSA/TSR changes and implementation to incorporate Justification for Continued Operations flashing spray release controls.

- WVDP: The FR conducted three monthly FR site assessments focused on the effectiveness and adequacy of the contractor's attention to ingress/egress facility requirements; communications; and maintenance. As a result of these assessments findings were issued regarding fire doors lacking adequate closers and latches to keep them closed; incorrect ventilation (negative versus positive) direction in stairwells; failure to inform the Shift Supervisor of changing plant conditions; less than legible logbook entries; and failure to preserve scene and obtain personnel statements prior to end of shift. Housekeeping, hard hat use, traffic safety, ventilation balancing, expectation communication, and seasonal weather planning were cited as areas in need of improvement.

- WVDP: The FR-in-training provided EM Program support at Brookhaven National Laboratory and the Separation Process Research Unit.

OFFICE OF NUCLEAR ENERGY (NE)

Facility Representative Program Performance Indicators (2QCY2010)

Field or Ops Office*	Staffing Analysis	FTEs	Actual Staffing	% Staffing	Attrition	% Core Qualified	% Fully Qualified	% Field Time **	% Oversight Time ***
ID (NE)	9	9	8	89	0	100	100	40	78
NE Totals	**9**	**9**	**8**	**89**	**0**	**100**	**100**	**40**	**78**
DOE GOALS	**-**	**-**	**-**	**100**	**-**	**-**	**>80**	**>40**	**>65**

* Field or Ops Office Key:
ID = Idaho Operations Office

** % Field Time is defined as the number of hours spent in the plant/field divided by the number of available work hours in the quarter. The number of available work hours is the actual number of hours a Facility Representative works in a calendar quarter, including overtime hours. It does not include leave time (sick, annual, or other) or holidays, nor does it include special assignments greater than 1 week assigned by the Field Element Manager.

***% Oversight Time includes % Field Time

NE Facility Representative (FR) Highlights:

- ID (NE): A Materials and Fuels Complex (MFC) FR investigated an issue associated with the adequacy of a steam system LO/TO. The FR noted that the zero energy verification had been signed as complete without the conditions being met at all of the worksites encompassed by the zero energy verification. The FR also noted that work had been directed to continue even after recognition that the system isolation was made suspect by the zero energy verification.

- ID (NE): An Advanced Test Reactor (ATR) Complex FR observing high pressure demineralized water valve replacement noted a discrepancy between the observed work and direction provided in the work order. The step being performed involved removal of potentially asbestos containing materials (PACM), and the work order listed a warning regarding personal protective equipment (PPE) for the PACM material removal. The PPE being used by the workers was not compliant with the PPE requirements of the warning in the work order. The specific concern of the FR was that the work order indicated that respiratory protection and special coveralls were required and none had been used.

- ID (NE): An MFC FR identified an concern with steam and condensate system repairs performed inside a confined space. The confined space entry permit required forced ventilation when a specific chemical was used. The chemical was mixed outside the confined space and was applied to the repair location inside the confined space. After approximately three hours workers entered the confined space and began heating the chemical with a heat gun to expedite the curing process. No forced ventilation was in use at the time, and a strong odor was present above the space.

- ID (NE): During power calibration and scram testing of the Neutron Radiography (NRAD) reactor an annunciator alarm was received corresponding to the safety channel being tested. The annunciator alarm is associated with the power level scram signal received from that channel. The annunciator alarm was received; however, an automatic scram did not occur. The MFC FR observing the evolution noted that the Reactor Supervisor did not follow the Off Normal Response Instruction for this condition which required a manual reactor scram. Instead, reactor power was lowered to a value less than that required by the Use Type 1 procedure for the performance of the test.

- ID (NE): Throughout the quarter FRs identified and reported worker health and safety deficiencies, including: hot work being performed without the required fire watch, use of out-of-service equipment, improper storage of gas bottles, improper labeling of chemical storage containers, and inadequate control of an excavation area.

- ID (NE): While observing fueling of the ATR, an FR noted that some actions were performed that were not included in the procedure. Contractor oversight was present but did not note the discrepancy. ATR fuel elements were released from the handling tool into an interim location and then re-grasped for movement to the reactor without procedurally directed actions.

NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)

Facility Representative Program Performance Indicators (2QCY2010)

Site Office*	Staffing Analysis	FTEs	Actual Staffing	% Staffing	Attrition	% Core Qualified	% Fully Qualified	% Field Time **	% Oversight Time ***
LASO	13	13	12	92	0	100	75	43	68
LSO	10	10	6	60	1	100	100	42	71
NSO	7	7	6.5	93	0	100	100	51	73
PXSO	10	9	9	90	0	100	100	46	72
SRSO	3	3	3	100	0	100	100	47	78
SSO	8	8	8	100	0	88	88	31	79
YSO	12	11	10	83	0	90	90	44	72
NNSA Totals	**63**	**61**	**54.5**	**87**	**1**	**96**	**91**	**43**	**72**
DOE GOALS	**-**	**-**	**-**	**100**	**-**	**-**	**>80**	**>40**	**>65**

* Field or Ops Office Key:
LASO = Los Alamos Site Office; LSO = Livermore Site Office; NSO = Nevada Site Office; PXSO = Pantex Site Office; SRSO = Savannah River Site Office; SSO = Sandia Site Office; YSO = Y-12 Site Office

** % Field Time is defined as the number of hours spent in the plant/field divided by the number of available work hours in the quarter. The number of available work hours is the actual number of hours a Facility Representative works in a calendar quarter, including overtime hours. It does not include leave time (sick, annual, or other) or holidays, nor does it include special assignments greater than 1 week assigned by the Field Element Manager.

*** % Oversight Time includes % Field Time

NNSA Facility Representative (FR) Highlights:

- LASO: An FR identified a TSR violation at the Weapons Engineering Tritium Facility (WETF) for failure to perform Limiting Conditions for Operation (LCO) 3.2 actions as modified by WETF-JCO-10-01, Revision 0, Justification for Continued Operations (JCO) for Wet-Pipe Fire Sprinkler System Flow Impairment in Building 205.
- LASO: An FR participated as a team member in the LASO Deferred Maintenance/Real Property Value Assessment.
- LASO: An FR shadowed a contractor assessment for evaluation of group interface within TA-55.
- LASO: Five FRs attended Readiness Review Team Member Training at the FR Workshop.
- LSO: An FR completed verification of pre-start issues to support start up of the Tritium Gas System.
- LSO: An FR participated as a review team member in the annual DSA/TSR submittal for a Category 2 nuclear facility.
- LSO: An FR provided oversight of loading of 214 TRU waste containers into transuranic package transporter (TRUPACT) casks that were shipped to Idaho National Engineering and Environmental Laboratory (INEEL).
- LSO: One FR retired, and one FR completed his cross-qualification on the National Ignition Facility.
- LSO: While conducting an assessment of inventory controls, an FR identified that a revised inventory limit for beryllium was not flowed down from the facility's non-nuclear safety basis document to the facility's implementing procedure.
- NSO: FRs provided valuable safety and operational oversight in support of three nuclear facility start-up activities.
- NSO: FRs supported the Barolo Subcritical Experiments (SCE) and Criticality Experiments Facility (CEF) Operational Readiness Review (ORR) teams during pre-site visits and the actual ORR. An FR participated as a member of the ORR team.
- PXSO: An FR was selected as the NNSA nominee to the Sandia National Laboratory Weapons Intern Program.
- SRSO: An FR supported the Pit Disassembly and Conversion Integrated Project Team by overseeing the contractor's design efforts for robotics systems.

- SRSO: An FR was named SRSO Employee of the Quarter.

- SRSO: During the period of June 2010, an FR participated on the ORR team for the Resumption of Tritium Gas Handling Operations at the Los Alamos National Laboratory WETF.

- SSO: An FR participated in the Federal ORR for the Auxiliary Hot Cell Facility, reviewing conduct of operations requirements. There were pre- and post-start findings identified related to operating procedures, and an observation related to improving communications during hot cell operations.

- SSO: An FR supported an Inspector General (IG) assessment of the Department of Energy's *Opportunity for Energy Savings Through Improved Management of Facility Lighting*, IG-0835. The IG's objective was to determine if the Department of Energy's facilities had effectively used lighting conservation measures.

- SSO: An FR's observations of the Neutron Generator Facility (NGF) hydrogen monitoring system led to the following system improvements: installation of valve position remote indicator alarms for the purge gas system; installation of a central manifold for detector calibration; ensuring system calibration upon discovery of an out-of-date calibration sticker; and removal of tape from the alarm reset button.

- SSO: The Annular Core Research Reactor (ACRR) FR recommended that Sandia National Laboratory use the Institute of Nuclear Power Operations document, *Principles for a Strong Nuclear Safety Culture*, Addendum I, "Behaviors and Actions That Support a Strong Nuclear Safety Culture," for an ACRR facility nuclear safety culture assessment instead of the proposed International Atomic Energy Agency International Nuclear Safety Advisory Group (INSAG) documents.

- SSO: The Sandia Pulsed Reactor Facility FR successfully completed requalification requirements.

- YSO: An FR conducted an assessment of the contractor's Occurrence Reporting performance which identified a number of occurrence reporting issues including inadequate categorization of occurrence events, inaccuracy of some occurrence report information, and failure to obtain FR approval for revised reports requiring FR approval.

- YSO: An FR discovered that a critical lift was not conducted according to the lift plan.

- YSO: An FR identified a lack of control of foreign materials with the potential for adverse effects to an important facility process. This was the third instance of the issues since 2008 and was formally escalated to a deficiency by the FR.

- YSO: An FR observed two assembly workers violating transient combustible material procedural work requirements. A similar violation occurred three days earlier and was the direct cause of a fire.

OFFICE OF SCIENCE (SC)

Facility Representative Program Performance Indicators (2QCY2010)

Area/Site Office*	Staffing Analysis	FTEs	Actual Staffing	% Staffing	Attrition	% Core Qualified	% Fully Qualified	% Field Time **	% Oversight Time ***
AMES	1	1	1	100	0	100	100	33	75
ASO	5	5	4	80	0	100	100	21	86
BHSO	4	4	4	100	0	100	100	51	80
FSO	2	2	2	100	0	50	50	52	65
NBL	1	1	1	100	0	100	0	33	66
OR (SC)	5	5	5	100	0	100	100	47	76
PNSO	3	3	3	100	0	100	100	44	73
SC Totals	**21**	**21**	**20**	**95**	**0**	**95**	**90**	**41**	**77**
DOE GOALS	**-**	**-**	**-**	**100**	**-**	**-**	**>80**	**>40**	**>65**

* Field or Ops Office Key
AMES=AMES Site Office; ASO = Argonne Site Office; BHSO = Brookhaven Site Office; FSO = Fermi Site Office; NBL = New Brunswick Laboratory; OR = Oak Ridge Office; PNSO = Pacific Northwest Site Office

** % Field Time is defined as the number of hours spent in the plant/field divided by the number of available work hours in the quarter. The number of available work hours is the actual number of hours a Facility Representative works in a calendar quarter, including overtime hours. It does not include leave time (sick, annual, or other) or holidays, nor does it include special assignments greater than 1 week assigned by the Field Element Manager.

*** % Oversight Time includes % Field Time

SC Facility Representative (FR) Highlights:

- BHSO: An FR participated in the Accelerator Readiness Review (ARR) for a new Electron Beam Ion Source (EBIS).
- BHSO: An FR performed a lockout/tagout assessment of various Brookhaven National Laboratory departments and identified several deficiencies.
- BHSO: An FR reviewed the draft Safety Assessment Document and Accelerator Safety Envelope for the commissioning of the National Synchrotron Light Source II planned for 2012.
- BHSO: FRs participated in energy sustainability requirements training.
- FSO: FRs participated in contractor assurance activities, construction safety walkthroughs, DOE Accelerator Safety Order Working Group Documentation Update, and Regulatory permitting and reporting.
- NBL: In preparation for a fire sprinkler improvement project, the FR walked down the catwalk area with an emphasis on fall protection and communicated to NBL the need for installation of guard rails.
- NBL: The FR discussed diesel generator testing/maintenance with the NBL Building Manager and provided an industry recommendation indicating that runs with less than 1/3 of the rated load may result in equipment degradation.
- OR(SC): A coordinated assessment was conducted of compliance with DOE O 420.2B, *Safety of Accelerator Facilities*, at the Spallation Neutron Source. This assessment was completed jointly by the FRs and radiation protection subject matter experts (SMEs), and an overall assessment report was prepared.
- OR(SC): During the quarter, 76 FR walkthroughs were conducted and documented in the ORION tracking system. Ten of these walkthroughs were conducted jointly with environmental safety and health SMEs.

- PNSO: An FR followed the unplanned quench of the 900MHz NMR Spectrometer in the Environmental Molecular Sciences Laboratory (EMSL). The quench occurred while trying to clear a monitoring system fault indicator. FR involvement has assisted in understanding resource usage and slow response of the contractor to formulate a restart/recovery plan.

- PNSO: An FR has continued to monitor corrective actions from inadequate response to a fire in the Applied Process Engineering Laboratory (APEL) in May 2009. Several other inadequate fire event responses have led the contractor to attempt to evaluate why staff members have not always responded correctly. Continued FR involvement has kept attention on inadequately addressed issues and emphasis on timeliness of contractor approach.

- PNSO: An FR responded to and followed closure of Physical Sciences Laboratory (PSL) 522, and later the entire PSL facility due to unknown chemical fumes. Issues existed with adequacy of building response including conduct of the Building Emergency Director, interface with the Richland Fire Department, researcher support for response, reentry planning, and communications with staff who do not speak English well. FR involvement continues to ensure contractor management appropriately addresses breadth of issues.

- PNSO: FRs monitored Hanford 325 Building C-Cell cleanout and window removal activities. The 8000 pound window was successfully removed and shipped from the facility for refurbishment by a subcontractor. FR involvement contributed to improvements in the contractor's knowledge of radiological conditions of the job and improved use of professional heat stress monitoring. Contractor generally performed work well with no significant radiological control issues.