



Department of Energy

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MEMORANDUM FOR DISTRIBUTION

FROM:

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DEPARTMENTAL REPRESENTATIVE TO THE
DEFENSE NUCLEAR FACILITIES SAFETY BOARD
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT:

Facility Representative Program Performance Indicators Quarterly
Report, January – March (1st Quarter CY2008)

Attached is the Facility Representative (FR) Program Performance Indicators Quarterly Report covering the period from January to March 2008. Data for these indicators are gathered by Field elements quarterly per DOE-STD-1063-2006, *Facility Representatives*, and reported to Headquarters program offices for evaluation and feedback to improve the FR Program. A summary of this quarter's data concluded:

- 85% Fully Qualified (last Quarter was 83%)
- 88% Staffing Level (last Quarter was 85%)
- 45% Time Spent in the Field (DOE goal is >40%)
- 75% Time Spent in Oversight Activities (DOE Goal is > 65%)

Percentages are based on FR staffing analyses at 205 Full Time Equivalents (FTEs) and 181 FTEs actual staffing. Fully qualified FR totals for this period broken down by program were as follows: Environmental Management (EM) had 92% fully qualified, Nuclear Energy (NE) had 100% fully qualified, National Nuclear Security Administration (NNSA) had 74% fully qualified, and Science (SC) had 84% fully qualified. The Department of Energy (DOE) goal for fully qualified FRs is greater than 80%.

FR Staffing for EM was 83%, which is largely attributed to the Savannah River Operations Office where 22 of the 32 FRs called for in the staffing analysis were staffed. Recent improvements with FR incentives have been implemented at this site to assist with filling these vacancies. FR staffing was at 94% for NNSA, 100% for NE, and 90% for SC. The DOE goal for FR staffing is 100%.

FR attrition for this period was eight, six coming from EM. These included three promotions, two retirements, and one transfer to another site. The SC FR attrition includes one promotion and one transfer to another site. There was no NNSA or NE FR attrition during this reporting period.

Current FR information and past quarterly performance indicator reports are accessible at the



FR web site at <http://www.hss.doe.gov/deprep/facrep/>. Should you have any questions or comments on this report, please contact me or the DOE Facility Representative Program Manager, James Heffner at 202-586-3690.

Attachment

ENVIRONMENTAL MANAGEMENT SITES

Facility Representative Program Performance Indicators (1QCY2008)

<u>Field or Ops Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
CBFO	2	2	2	100	0	100	50	66	86
ID (EM)	13	12	11	85	0	91	91	46	87
OR (EM)***	19	17	15	79	2	93	87	49	70
ORP	14	14	12	86	2	100	100	43	73
PPPO	4	4	4	100	0	100	100	42	77
RL	19	19	19	100	0	100	100	46	72
SR	32	32	22	69	2	88	88	52	78
WVDP	1	1	1	100	0	100	100	47	80
EM Totals	104	101	86	83	6	95	92	48	76
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

* % 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

*** The Oak Ridge Office belongs to the Office of Science; however, EM FRs are indicated in this table.

EM Facility Representative (FR) Highlights:

- ID (EM): A Fissile Materials Disposition Program (FMDP) FR identified a significant fall protection issue at the Materials Test Reactor (MTR) Decontamination and Decommissioning (D&D) project. The FR observed fall-protection issues at the surface of a 12-14 foot deep excavation in the MTR basement. The job involved excavating a vertical pit to gain access to a short piping run as part of a Voluntary Consent Order (VCO) task. Shoring was used to stabilize the walls of the pit. Three employees were working near the edge of the pit without a personal fall protection system, travel restriction or other barrier to prevent a fall accident. The FR took actions to alert project supervision on the unsafe practice.
- ID (EM): Waste Disposition Project (WDP) FRs identified poor implementation in the maintenance testing, and calibration of industrial hygiene monitoring equipment and a fume hood. As a result, the contractor has recognized a weakness in different departments maintaining separate tracking lists and is now consolidating equipment subject to maintenance, testing, and calibration into their maintenance management program.
- ID (EM): An FMDP FR identified deficiencies in the contractor's process to incorporate Technical Safety Requirements (TSR) into facility operating procedures. During document reviews and workplace inspections, the FR identified multiple instances where the contractor had not adequately implemented facility TSR requirements into the procedures.
- ID (EM): During the month of March, a WDP FR noted less than adequate (LTA) communication during two separate, unrelated events. The LTA communication indicated areas of requiring improvement in "command and control" and "roles and responsibilities."
- OR (EM): Lost two FRs this quarter; one was promoted to Federal Project Director and the other retired.
- OR (EM): Notable FR statistics during this period included the execution of 140 walkthroughs and/or assessments; review of more than 579 contractor documents; and the attendance of more than 851 meetings, briefings, plans-of-day, and plans-of-week in support of contractor activities.
- OR (EM): Major oversight activities included reviewing equipment segmentation and removal of special nuclear material; process gas duct removal; vent, purge and drain activities on process gases systems; internal visual inspection of process gases components; drilling and foaming of converters, compressors and process gas piping;

segmentation of equipment; asbestos abatement activities; material size reduction and packaging for transportation; material shipments for waste disposal; and installation of nets and barriers.

- ORP: Two FRs were promoted in February 2008. One was promoted to a Federal Project Director position and one was promoted to a Division Director position. ORP plans to fill the two vacancies.
- ORP: An FR identified that a sub contractor was not shipping hazmat correctly during tanker truck operations. As a result of this observation, the prime contractor is modifying the procedure and will increase oversight of these events.
- ORP: An FR identified a lack of procedural control for small leaks during a bulk caustic addition evolution. As a result of the non-cited finding, the contractor modified the procedure to provide an acceptable leak rate during the transfers, and hazard controls should a leak occur.
- ORP: While observing aerial lift operation during construction activities, an FR identified ineffective positioning of falling object barricades at the north-west corner of the Laboratory facility. The FR pointed this out to the spotter who immediately corrected the situation.
- ORP: An FR found inadequate monitoring of a newly installed waste transfer leak detection system. As a result, the contractor has formalized the use of the system.
- ORP: An FR reviewed emergency lighting and found that lights were missing in some areas, were not working in some areas, were not being properly tested, and that some lights that failed testing had failed testing for more than 11 months without being fixed.
- PPPO: An FR identified that the air operated valves on various gas manifolds within the Depleted Uranium Hexafluoride Conversion facility, did not appear to be compliant with valve manufacturer requirements; in that Teflon tape was used in sealing air line connections at the valve operators. While investigating this condition, the contractor identified that the manifold fabrication document specified using Teflon tape and pipe dope for all non-seal welded connections and it is not clear if these directions were approved by the various air operated valve manufacturers.
- PPPO: An FR participated on the Integrated Safety Management System (ISMS) assessment and identified that work was being performed on fire suppression equipment without required lockout/tagout (LO/TO) applied to the compressed air system. The affected contractor initiated a safety pause to evaluate the extent of condition associated with LO/TO compliance.
- RL: FRs performed core surveillances at various Project Hanford Management Contract (PHMC) and River Corridor Project (RCP) projects/facilities to evaluate the effectiveness of the contractor's Procedure Content and Use, Waste Management, and Hazard Communication and Scaffolding.
- RL: A total of 1135 Operational Awareness (OA) reports were submitted that included 317 issues. Examples of significant FR Program accomplishments, in addition to standard oversight, included: FRs conducting a RL site wide surveillance activity identified a number of opportunities for improvement in procedure content and use at both Fluor Hanford, Inc. (FHI) and Washington Closure Hanford LLC (WCH) facilities; an FR identified numerous waste management deficiencies at the 1330N waste pad during performance of Waste Management core surveillance; an FR found that the contractor failed to properly classify a lost-work-day injury as recordable on OSHA Form 300, and that they show a bias against classifying borderline cases as recordable; and an FR led a RL team of subject matter experts in assessing the WCH Project Start-up Review process and readiness to begin excavation/characterization operations at the 618-7 burial ground.
- RL: Examples of oversight actions provided by FRs include: Canister Storage Building (CSB) Line Management Review for Spent Fuel Operational Readiness Review (ORR); KE Basin dewatering; KB Basin turnover to D&D;

downgrade KB Basin to Less than Category 3 Nuclear Facility; preparations to move to 22 ton payloads in an Environmental Restoration Disposal Facility (ERDF) container; development of burial ground Special Packaging Authority; and Glovebox HA-23S process equipment removal activities.

- RL: Examples of inadequate items identified by FRs include: inadequate closure packages for items requiring RL verification; inadequate use of contractor Issues Management System; temporary installation of flexible exhaust ducts was not specifically identified in the work instruction; and Administrative Control compensatory measure was not performed per the work instruction.
- SR: One FR retired and one FR transferred to another site this quarter. Two FR Positions were deleted (Manager's Office and Security) and one new FR was hired in the Assistant Manager for Nuclear Material Stabilization Project (AMNMSP). Two Assistant Manager for Closure Project (AMCP) FRs completed the FR qualification process.
- SR: An Assistant Manager for Waste Disposition Project (AMWDP) FR led DOE Validation of Washington Savannah River Company (WSRC) Readiness Assessment (RA) to support implementation of the DSA/TSR Upgrade at Solid Waste Management Facility (SWMF).
- SR: An AMWDP FR led DOE Validation of WSRC ORR to support operation of the Interim Salt Disposition Project (ISDP).
- SR: The ISDP DOE ORR was completed with a minimum number of deficiencies (two). AMWDP FRs validated closure to support a new era of salt processing at Savannah River Site
- WVDP: The WVDP FR initiated a revised approach to the conduct of monthly site assessments this quarter. In addition to evaluating and reporting on the contractor's operational performance, a focus was placed on any outstanding site-wide issues relative at the time. The first three monthly assessments have focused on the contractor's attention to housekeeping, communication, and log keeping.

NUCLEAR ENERGY, SCIENCE, AND TECHNOLOGY

Facility Representative Program Performance Indicators (1QCY2008)

<u>Field or Ops Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
ID (NE)	11	11	11	100	0	100	100	45	78
NE Totals	11	11	11	100	1	100	100	45	78
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

NE Facility Representative (FR) Highlights:

- ID (NE): An FR identified that the contractor had failed to stop work when limiting conditions of the Radiological Work Permit had been exceeded. The FR's identification of this issue resulted in the submittal of an Occurrence Reporting and Processing System (ORPS) report.
- ID (NE): An FR discovered a Bridgeport lathe that did not have a LO/TO applied during maintenance activities by a subcontractor. This was the first of several LO/TO events (the others identified by the contractor) which resulted in additional LO/TO training being given to contractor employees. The FR's identification of this issue resulted in the submittal of an ORPS report.
- ID (NE): An FR noted that three of four required reads had not been completed by several operators and were past the required completion date. The issue was brought to the attention of the Advanced Test Reactor (ATR) Managers who took action to correct the deficiency.
- ID (NE): An FR observed activities involved with cleaning the secondary cooling system screens and questioned the adequacy of fall protection employed by the workers. A critique was held which identified multiple issues reflecting a weakness in the ISMS program.
- ID (NE): An FR noted a perimeter light pole for which the light fixture had broken off, presumably due to adverse weather. Investigation showed that other lights of this type and location had fallen from poles over the past few years. The FR pointed out to the F&SS Manager that the fact that multiple light fixtures have fallen from the pole indicates that the condition of the remaining lights is suspect. Corrective actions are being developed.
- ID (NE): An FR identified that the control of the fire system impairment process during a building maintenance outage was less than adequate. Facility procedures were not followed which resulted in a loss of the fire system monitoring and fire watch coverage.

NATIONAL NUCLEAR SECURITY ADMINISTRATION SITES

Facility Representative Program Performance Indicators (1QCY20087)

<u>Site Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
LASO	14	14	10	71	0	80	70	38	68
LSO	10	10	10	100	0	90	70	40	71
NSO	8	8	9	113	0	78	78	54	72
PXSO	10	10	10	100	0	100	60	48	74
SRSO	4	4	4	100	0	100	75	37	80
SSO	11	11	11	100	0	100	91	33	71
YSO	12	11	11	92	0	91	73	46	73
NNSA Totals	69	68	65	94	0	91	74	43	72
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

NNSA Facility Representative (FR) Highlights:

- LASO: Two FRs completed initial qualifications becoming fully qualified. One newly hired FR was brought on-board in February. Recruitment/hiring actions continue for the remaining vacancies.
- LASO: The FR noted that no Plan of the Day (POD) for Nuclear Environmental Site (NES) was being held. The FR encouraged the NES Operations Manager to establish a Plan of the Day meeting and issue a written POD for each day's activities. On January 9 the first ever NES POD was held. Since then it has been an ongoing activity. No work is allowed to be done in any NES unless it is on the POD
- LASO: The FR learned that a LASO safety basis team member believed that activities related to the MDA B haul road construction were not within the scope of the existing DSA. The FR facilitated communications on the subject between LASO SBT and Los Alamos National Security, LLC (LANS) operations management until the issue was resolved.
- LASO: FRs issued a finding concerning the degraded condition of Radioactive Liquid Waste Treatment Facility (RLWTF) and the lack of an effective maintenance program for the facility. Through this finding, RLWTF Facility Management, LANL Senior Management, and DOE Management attention to the degraded condition of the RLWTF facility was heightened and additional funding is being allocated to RLWTF to address the most serious of these maintenance issues.
- LASO: In January, an FR reported that TA-21 does not have a current facility tenant agreement. Subsequently the FR successfully convinced the Facility Operations Director of the importance of having an FTA for TA-21. On March 13 a Facility Tenant Agreement between TA-21 programs and end users was approved. The FTA includes important provisions for access control that did not previously exist. Another important aspect of implementation of the FTA is the inclusion of TA-21 work scope in the NES Plan of the Day meeting discussion
- LSO: One FR completed his initial qualification, bringing the percentage of FR fully qualified to 70 percent.
- LSO: During an FR assessment of contractor implementation of a critique process, weaknesses in critique report timeliness and incomplete training for critique directors were identified.
- LSO: During an FR assessments of contractor conduct of operations implementation, issues such as no radiological posting leading to a Radioactive Material Area, fire extinguishers exceeding the required one-year inspection date,

room-to-atmosphere DP gauge out of calibration, and lack of updates to hazards controls in work authorization documents were identified.

- LSO: FRs provided support to the SMEs by participating as a review team member for the review of the contractor's Maintenance Implementation Plan submittals.
- NSO: A Future Leader's Program participant is filling the role of a Facility Representative, thus making staffing levels nine total. This FR is still in the qualification process, and will become a NNSA/NSO employee during the second quarter CY 2008.
- NSO: An FR has been assigned collateral duty as the Functional Area Manager for the Nevada Site Office work control program, and coordinated a DOE wide status review and working meeting of work control improvements at the Nevada Site Office.
- NSO: FRs served on a Safety Basis Review Team, an assessment/readiness review of a recently re-categorized nuclear hazard category III facility, as Deputy Team Leader for a Formality of Operations assessment of a building management contractor, and on various Integrated Project Teams. These assignments serve to provide training, qualification, and career development opportunities for qualified FRs and to meet NSO staffing needs.
- NSO: FRs have initiated a pilot program, to be executed during the balance of FY 2008, to shadow M&O contractor performed assessments as per DOE-P-226 and the most current DOE-O-226 per the expectations of Field Element Managers for LO/CAS programs. Shadow assessment criteria have been developed based upon DOE-G-414.1-1B.
- PXSO: Two FRs participated on a NNSA Weapon Program Readiness Assessment.
- SRSO: The SRSO Facility Representative program was reviewed in a Chief Defense Nuclear Safety assessment and no significant issues were identified.
- SRSO: An FR served as the Acting Assistant Manager for Mission Assurance during the period.
- SSO: An FR assessed the corrective actions established in response to an internal SNL audit of LO/TO, and determined that a corrective action to require written equipment-specific lockout procedures for all lockouts was neither implemented nor implementable in the SNL maintenance organization, and that equipment-specific lockout procedures for multiple energy source equipments did not meet OSHA 29 CFR 1910.147 requirements.
- SSO: A SSO FR team completed the FR Program Self-Assessment and a Corrective Action Plan.
- SSO: An FR provided successful oversight of the final Special Nuclear Material (Sandia Pulsed Reactor spare fuel plates) repackaging and transport off site. The FR developed and executed a SSO DT-23 O-Ring Replacement Oversight Plan to monitor and document successful recovery from a procedural error. As a result the FR received an Achievement Award from NNSA as a participant in removal of this Special Nuclear Material from SNL.
- SSO: An FR developed/implemented a Safety Culture monitoring system based upon INPO guidance.
- YSO: An FR identified a significant QA concern related to contractor oversight of the Highly Enriched Uranium Materials Facility (HEUMF) construction project in which quality data was not being analyzed and trended resulting in recurring issues.
- YSO: An FR noted an apparent inconsistency between the amounts of hazardous material required to exceed comparison values at the site boundary and the established inventory limit for the material. The Shift Manager curtailed all receipt of hazardous material in the area of concern. A Potential Inadequacy of the Safety Analysis

(PISA) may exist and the facility began addressing the issue using their procedure on discovery of PISA.

- YSO: FRs participated in the successful Readiness Assessment (RA) for the start-up of a specialized security feature referred to as the Access Delay System. The equipment is located in a hazard category 2 facility and is part of the continuing upgrade of Y-12 security systems. The Access Delay system has a promising future use in the proposed Y-12 Uranium Production Facility (UPF).
- YSO: An FR closely followed contractor measures to respond to and characterize unexpected chip oxidation which occurred while in inerted storage locations.
- YSO: An FR was reassigned to increase the number of FRs assigned to oversee the construction of the Highly Enriched Uranium Materials Facility to a total of two FRs.

OFFICE OF SCIENCE SITES

Facility Representative Program Performance Indicators (1QCY2008)

<u>Area/Site Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
ASO	5	5	5	100	0	100	100	24	79
BHSO	5	5	5	100	2	100	60	43	79
FSO	2	2	2	100	0	100	100	39	94
OR (SC)	5	5	5	100	0	80	80	43	73
PNSO	4	4	2	50	0	100	100	45	78
SC Totals	21	21	19	90	2	95	84	38	79
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

SC Facility Representative (FR) Highlights:

- ASO: FRs provided guidance to ANL in developing improved controls at four ANL nuclear facilities. The improved controls are resulting in enhanced compliance with nuclear safety requirements.
- BHSO: Two FRs left the BHSO FR program this period. One FR, whose position will not be filled, left to work at DOE-Hanford. The other FR was promoted to the DOE Brookhaven Site Office Deputy Site Manager. On FR was hired during the reporting period.
- BHSO: Several FRs participated in the CD-4B Readiness Assessment for the BNL Center for Functional Nanomaterials (CFN).
- FSO: FRs were involved in coordination and participation of reviewing of the Fermilab Contractor Assurance System program
- FSO: FRs were involved in the development of a Technical Qualification Program (TQP) being led by the DOE Chicago Integrated Support Center.
- FSO: FRs participated in a self-assessment of the FSO Oversight Program
- OR (SC): A new-hire filled vacant FR slot in January.
- OR (SC): Normal FR activities continued at the High Flux Isotope Reactor and at the Non-Reactor Nuclear Facilities and ORNL Accelerator Facilities.
- PNSO: PNSO hired a third FR in January, who was at the time participating in a Source Evaluation Board for DOE-RL and will continue to do so until the evaluation board concludes its work. PNSO has issued a vacancy announcement for a fourth FR and expects to fill that vacancy by the end of June.
- PNSO: An FR continued monitoring the contractor's recovery actions for the plutonium-238 contamination discovered both on-site and off-site that resulted from a sealed source that leaked plutonium-238 in June 2007.
- PNSO: FRs continued monitoring construction and transition activities including the pouring of concrete footings for two of the four buildings comprising the Physical Science Facility (PSF); the assembly of the quarter scale model of the Hanford Vitrification Plant pretreatment system in the Process Development Lab – West (PDL-W);

acceptance of, and transition into, the Bioproducts, Science, and Engineering Laboratory (BSEL) on the Richland campus of Washington State University; and the completion of the Environmental Molecular Science Lab (EMSL) office addition.

- PNSO: FRs monitored contractor response to events involving a lock and tag procedural non-compliance, inadequate control of sealed radiation sources, a near miss due to a falling electrical cord reel, a contractor staff member's fractured finger, and a near miss due to falling insulation.