Focus Area #2 – Adequate NQA-1 Suppliers

EM Project Area 2 - NQA-1 Suppliers
Project Milestone Task 2.6

Scope of Project Milestone Task 2.6:
Request the procedures used for qualifying nuclear grade suppliers from each major EM contractor and evaluate the procedures to determine the level of consistency pertaining to the implementation and interpretation of these procedures as they relate to the qualification methods defined in NQA-1. (See Attachment for a listing of the procedures reviewed and the sites who participated.)

Overall Scope of the Initiative:
Perform research and evaluation to identify methods for expanding the number of willing and qualified suppliers for nuclear grade items and services within EM. Provide recommendations for promoting information sharing, resource sharing and standardization of efforts within EM to improve quality, safety and cost associated with identifying, qualifying and maintaining suppliers.

Evaluation Summary:
The procedures for qualifying nuclear grade items and services suppliers were reviewed for eight primary contractors of DOE sites. The sample included procedures from both EM sites and some of the Laboratories with limited EM involvement. Although all of the procedures reviewed were in compliance with the three methods of qualification per NQA-1, each site's methodology and approach to the implementation of the requirements varies. Most of the procedures reviewed rely primarily on documentation reviews, such as supplier history, supplier's QA Manual, quantitative and qualitative data, third party audits, source verification reports, receiving inspection reports, nonconformance reports, etc., for qualification of the supplier. Actual audits of the supplier facilities are an option in the procedures reviewed; however, it appears that most sites pursue this option once all other sources are exhausted. Based on the results of this review, it is apparent that each site implements the NQA-1 requirements utilizing a variety of methods and the processes are not consistent. The results of the evaluation are detailed below.

Evaluation Results:
Of the eight primary contractor procedures reviewed, there were commonalities as listed below:

- All addressed the three methods of qualification per NQA-1
- All are qualifying suppliers using one or more of the NQA-1 methods
- All are implementing a graded approach via a predefined procurement process, i.e., procurement level, management level, class level, risk level, etc.
- If an external supplier audit is performed, all require compliance with an auditing process which meets the intent of Requirement 18 of NQA-1 and requires the utilization of Lead Auditors
- All define the required documentation and quality records associated with the process

Although there were commonalities identified, the interpretation and implementation of the three methods allowed by NQA-1 varies substantially. The following is a list of some of the major differences:

- Number of procurement process levels as applicable to the graded approach
- Definitions of each procurement process level category and terminology
- Use of certifications for qualification
- If an external supplier audit is used for qualification, when it is required in the procurement process (prior to or after contract award)
- Placement on the qualified or approved suppliers list with open deficiencies, findings, etc.
- Documentation requirements vary (forms, surveys, checklists, etc.)
- Annual evaluation process and required documentation

Recommendations:
Consistency among the sites will only occur with specific direction mandated by EM and included in the site contracts. Necessary aspects of this direction include, but are not limited to, the following:

- Detailed procedure/process for supplier qualification,, including expectations for implementation
- Common terminology, definitions and acronyms
- See Tasks 2.10 and 2.12 for recommended methods for implementing the above recommendations

Attachment:
Procedures Reviewed and Site Listings

Attachment
Procedures Reviewed and Site Listings

DOE Site or Contractor	Procedures Reviewed
K-25 Oak Ridge Bechtel Jacobs	BJC-PQ-1208, *Supplier Quality Assurance Evaluation Program*
	BJC-DE-1021, *Material Requisition Package Requirements*
AMWTP	MP-PCMT-15.7, *Vendor Qualification and Performance Evaluation*
Los Alamos National Lab	ISD 330-4.0, *Supplier Evaluations*
	QA-PQ-AP-001.002, *Supplier Performance and Quality System Re-Evaluation*
	PD-021.005, *Supplier On-Site Evaluations*
Energy Solutions	ES-QA-PR-003, *Supplier Evaluation*
Brookhaven National Lab	WM-ADM-925, *Requirements for Purchased Items and Services*
WIPP	WP 13-QA3012, *Supplier Evaluation/Qualification*
SWPF at SRS Parsons	DP-QA-4706, *QA Assessment of Item and Service Procurements*
	DP-QA-4708, *Audit Program*
	PP-QA-4701, *Surveillance Program*
SRS Savannah River Nuclear Solutions	QAP 7-2, *Control of Purchased Items and Services*
	QAP 18-3, *Quality Assurance External Audits*

EM Project Area 2 – Adequate NQA-1 Suppliers
Project Milestone Task 2.9

Scope of Project Milestone Task 2.9:
Evaluate the applicability and completeness of the listing of common commodities/items/services provided by the major EM Contractors.

Evaluation Summary:

The team requested a current list of commodities/items/services from the major EM contractors. Additionally, the team requested the names of the current suppliers that are providing nuclear grade (Safety Class, Safety Significant, and Important to Safety) materials, equipment, items and services from each major EM contractor. These two actions were combined into the attached listing of commodities and suppliers.

Recommendation:

None. This listing was used as support for other EM Project Area 2 tasks.

The following listing of **Commodities** and **Potential Suppliers** were identified by the EM Project Area #2, NQA-1 Suppliers Team.

Commodities	Supplier	Supplier	Supplier	Supplier	Supplier
Filters	Nuclear Filter Technology 741 Corporate Circle, Suite R, Golden CO 80401 (Drum vent filters)	Flanders Filters 531 Flanders Filters Road Washington, NC 27889-1708 (HEPA & Housings)	American Air Filter 2100 Nelwood Dr. Columbia, MO 65205 (HEPA)	Camfil Farr 200 Creekside Drive Washington, NC 27889 (Housing for HEPA filters)	
Fasteners	Nova Machine Products 18001 Sheldon Rd. Middleburg Heights, OH 44130				
Containers (Boxes)	Bull Run Metal 3 Center Stage Business Park E Clinton, TN 27716	Container Technologies Industries 163 Helenwood Detour Rd. Helenwood, TN 37755	Premiere Technology, Inc. 170 E. Siphon Pocatello, ID 83202	Ionex 1301 Eastwind Drive Lafayette, CO 80026	Container Products Corp 112 North College Road Wilmington, NC 28406
	Petersen Inc. 1527 North 2000 West Ogden, UT 84404	Viking Packing Specialists 10221 East 61st Street Tulsa, OK 74133			
Containers (Drums)	Skolnik Industries 4900 South Kilbourn Avenue Chicago, IL 60632	Grief 7425 Industrial Road Florence, KY 41042 695 Louis Dr. Warminster, Pennsylvania18970	Myers Container Corporation 900 Brookside Drive San Pablo, CA 94801 (numerous other locations)		
Radiation Detection & Analysis Instrumentation	Canberra Industries 1133-C Oak Ridge Turnpike, Suite 260 Oak Ridge, TN 37830	Analytics, Inc. 1380 Seaboard Industrial Blvd. Atlanta, GA 30318	Canberra Industries 800 Research Parkway Meriden, CT 06450		
Electrical Properties Testers	Fluke Corp. 6920 Seaway Blvd. Everett, WA 98203				

The following listing of **Commodities** and **Potential Suppliers** were identified by the EM Project Area #2, NQA-1 Suppliers Team.

Fabrication/Machining Services	Nutherm International 501 South 11th Street Mt. Vernon, IL 62864-4834 (CGI Dedication)	Olympic Tool and Engineering 21 W. Sanderson Way Shelton, WA 98584	Petersen Inc. 1527 N. 2000 W. Ogden, UT 84404	ABW Technologies, Inc 6720 191st Place NE Arlington, WA 98223	Accurate Machine Products Corp 710 West Walnut Street Johnson City, TN 37604
	Joseph Oat Corp 2500 Broadway Camden, NJ 08104	The Roberts Company 133 Forlines Road Winterville, NC 29890	Westerman Companies 245 N. Broad Street Bremen, OH 43107	American Tank & Fabricating 12314 Elmwood Ave. NW Cleveland, OH 44111	HiLine 2105 Aviator Avenue Richland, WA 99352
	Orbit Industries, Inc. 778 South 27th Street Washougal, WA 98671	Premier Technology, Inc 1858 W. Bridge Street Blackfoot, ID 83221	S.A. Robotics 3985 S. Lincoln Avenue, Suite 100 Loveland, CO 80537	West Metal Works 201 Dutton Avenue Buffalo, NY 14211	Major Tool and Machine, Inc. 1458 East 19th Street Indianapolis, IN 46218
	Still Walter Tool and Manufacturing 375 Cannon Bridge Road Orangeburg, SC 29115	Teledyne Brown Engineering 300 Sparkman Drive Huntsville, AL 35805	Specialty Maintenance and Construction (SMCI) PO Box 7120, 4015 Drane Field Road Lakeland FL 33807	Emery Corporation 1523 N. Green St. Morganton, NC 28680	
Compressed Gases	Matheson Tri-Gas, Inc. 6775 Central Avenue Neward, CA 94560	Scott Specialty Gases 500 Weaver Park Road Longmont, CO 80501	Praxair, Inc. (Several locations)	Air Liquide (Several Locations)	Oxarc, Inc 716 S. Oregon Avenue Pasco, WA 99301
Pumps	Chempump, Division of Teikoku Warrington, PA				
Valves, piping, plate, bar, forging, etc.	DuBose National Energy Services, Inc 900 Industrial Drive Clinton, NC 28328	Energy and Process Corp. 2146-B Flinstone Drive Tucker, GA 30084	Consolidated Power Supply 3556 Mary Taylor Road Birmingham, AL 35235	Swagelok 29500 Solon Rd Solon, OH	
IP -1, IP-2 IP-3 Packages	Associated Container Sales 7060 N. Rhett Extension Goose Creek, SC 29445	Packaging Specialties, Inc 300 Lake Road Medina, OH 44256			

The following listing of **Commodities** and **Potential Suppliers** were identified by the EM Project Area #2, NQA-1 Suppliers Team.

Hoisting/Rigging Equipment	Ashley Sling, Inc 10722 Dutchtown Road Knoxville, TN 37932	I & I Slings, Inc 1402-A East Mountain Road Kernersville, NC 27284			
Calibration Services	Bios International 10 Park Place Butler, NJ 07405	Bruel and Kjaer North America 2815 Colonnades Court Norcross, GA 30071	Davis Inotek Instruments, LLC 11212 Indian Trail Dallas, TX 75229 (Numerous other locations)	Exelon PowerLabs, LLC 175 North Caln Road Coatesville, PA 19320	Fluke Corporation Standards 6920 Seaway Blvd Everett, WA 98206
	Applied Technical Services, Inc 1049 Triad Court Marietta, GA 30062	Energy Northwest 3200 George Washington Way Richland, WA 99352	Southern Calibration & Services 590 W. Crossville Road, Suite 102 Roswell, GA 9/12/2010 (Z540 only)	Megger – Dallas 4271 Bronze Way Dallas, TX 75237 (Z540 only)	Megger – Valley Forge 2621 Van Buren Avenue Norristown, PA 19403 (Z540 only)
	Dayton T. Brown, Inc. 1175 Church Street Bohemia, NY 11716				
Software	ANSYS, Inc 275 Technology Drive Canonsburg, PA 15317	Canberra Industries, Inc 6001 S. Willow Drive, Suite 100\ Greenwood, CO 80111	Cygna Energy Services 1600 South Main Plaza, Suite 120 Walnut Creek, CA 94596	Bentley Structural Group 1600 Riviera Ave., Suite 300 Walnut Creek, CA 94596	Operation Technology 17 Goodyear Irvine, CA 92618
	Georgia Institute of Technology 790 Atlantic Drive Atlanta, GA 30332-0335				
Class 1E Electrical Equipment	Nutherm International 501 South 11th Street Mt. Vernon, IL 62864-4834 (CGI Dedication)	Trentec 4600 East Tech Drive Cincinnati, OH 45245			
Hazardous and non-hazardous waste management/transportation	EnergySolutions Federal Services 2345 Stevens Drive Richland, WA 99354	DSSI (Perma-Fix) 657 Gallaher Road Kingston, TN 37763	Veolia Environmental Services 1 Eden Lane Flanders, NJ 07836	Clean Harbors Environmental Services Inc 32 Tomkins Point Road Newark, NJ 07114	

The following listing of **Commodities** and **Potential Suppliers** were identified by the EM Project Area #2, NQA-1 Suppliers Team.

Laboratory Analysis	Pacific Northwest National Labs PO Box 999 Richland, WA 99352	Material and Chemistry Laboratory East Tennessee Technology Park Bldg. K-1006 Oak Ridge, TN 37830	Eberline Services Laboratories 601 Scarboro Road Oak Ridge, TN 37830	Analysts Maintenance Labs 3075 Corners North Court Norcross, GA 30091	
Testing and inspection services	Koon Hall-Adrian Metallurgical 5687-A SE International Way Portland, OR 97222	North West Inspection 6223 W. Deschutes, Suite 108 Kennewick, WA 99336	Air Techniques International 1708 Whitehead Road Baltimore, MD 21207	AFCO NDE 121 Peak Station Road Clinton, TN 37716	Leak Testing Specialists, Inc 5790 Hoffner Ave., Suite 505 Orlando, FL 32822
	Quality Inspection Services 4400 Broadway Depew, NY 14043	URS Washington Division 510 Carnegie Center Princeton, NJ 08543-5287	National Inspection & Consultants (NIC) 9911 Bavaria Road Fort Myers, FL 33913		
Code Pressure Vessels	All Alloys Fabrication, Inc. 726 Sevier Avenue Knoxville, TN 37920	Met Weld International 5727 Ostrander Road Altamont, NY 12009	Addison Fabricators 30751 Highway 278 Addison, AL 35540	Amer. Industrial Technologies, Inc. 100 Amer Road, Bldg 200 Wilmington, DE 19809	Joseph Oat Corporation 2500 Broadway, Drawer #10 Camden, NJ 08104
	Petersen Inc. 1527 N. 2000 W. Ogden, UT 84404				
Engineering and design	TPG Applied Technology 10330 Technological Drive Knoxville, TN 37932	ARES Corporation 1100 Jadwin, Suite 400 Richland, WA 99352	AREVA NC, Inc. PO Box 840 Richland, WA 99352	Columbia Energy and Environmental Services 1806 Terminal Drive Richland, WA 99354	Fauske & Associates, Inc 16W070 West 83rd Street Burr Ridge, IL 60521
	Shaw Environmental and Infrastructure 2400 Louisiana Blvd, NE Albuquerque, NM 87108				

EM Project Area 2 – Adequate NQA-1 Suppliers
Project Milestone Tasks 2.10 and 2.12

Scope of Project Milestone Task 2.10:
Determine the feasibility of EM contractors performing joint audits of common suppliers. If feasible, recommend procedure and checklist requirements that would be needed to implement.

Scope of Project Milestone Task 2.12:
Determine the feasibility of issuing a consolidated nuclear grade supplier list for EM. Evaluation should include legal and liability issues as well as any restrictions that would be needed on use of list by EM contractors.

Evaluation Summary:

Due to the close nature and inter-relationship of Task 2.10 and 2.12 the team elected to combine the results and recommendations for both tasks into this one document. This evaluation included:

- Procedures being used by EM contractors for qualifying nuclear grade suppliers (Task 2.6)
- Common commodities and services being used by the EM sites (Task 2.9)
- Determination on whether there are common suppliers and redundant audits being performed by EM contractors (Task 2.11)
- Review of existing industry organizations' approach to joint audits or shared audits (Task 2.13)
- Evaluation of recent or current EFCOG activities in the supplier arena.

Our evaluation determined that a consolidated nuclear grade supplier list and contractors performing joint supplier audits is not only feasible, but highly recommended. First, a distinction should be made between an EM consolidated nuclear grade supplier list and an EM Approved Supplier List. A consolidated supplier list is a list of those suppliers that have been audited under the applicable joint audit program, but does not contain endorsements or approvals by EM for contractors to use these suppliers. This list is also used for the purpose of scheduling and tracking joint supplier audits within the complex. An EM Approved Supplier List would be an approval of the supplier for use on any EM site without requiring any additional action by the sites or contractors using a supplier on the list. This approach will create liability issues and possibly legal issues for EM and will not comply with the current QA Program requirements. Our research into existing programs and methods within EFCOG and DOE led us to the Energy Facility Contractors Group (EFCOG) Supply Chain Quality Task Team (SCQTT). The SCQTT has been working on a similar task as the EM NQA-1 Supplier Team and has put in place programs and systems that address joint audits and sharing of audit results. This team is comprised of representatives from DOE, NNSA and contractor organizations. The SCQTT has developed a Supplier Evaluation Program (SEP) which adopted a standard audit protocol that includes audit scheduling, planning, performance, reporting, follow up

and verification and closure of the audit process. Implementation of this methodology ensures that audits are documented and performed in a consistent manner by trained and qualified professionals. Additionally, the program has established methods to input joint supplier information into the Integrated Supplier Information System (ISIS) to enable contractors to view and evaluate audit reports and associated documents prior to using the supplier. The SCQTT Supplier Evaluation Program has been reviewed and accepted by representatives from the following organizations/sites:

- Pacific Northwest National Laboratory
- Parsons
- Fluor Hanford
- WIPP
- Oak Ridge National Laboratory
- Lawrence Livermore National Laboratory
- Savannah River Nuclear Solutions
- National Security Technologies
- Los Alamos National Laboratory
- Argonne National Laboratory
- Brookhaven National Laboratory
- BWXT Pantex
- Idaho National Laboratory

This approach is consistent with elements of both the NUPIC joint audit program and the NIAC shared audit program. This approach eliminates the legal and liability issues for EM and fully complies with NQA-1. This program has already been implemented by the EFCOG Supply Chain Working Group in other parts of the DOE Complex.

Recommendations:

- EM endorse the EFCOG Supply Chain Working Group procedure for performing joint audits, *Energy Facility Contractors Group (EFCOG) Supply Chain Quality Task Team Supplier Evaluation Program*, approved August 2008 (Attached)
- EM endorse the posting of supplier audit information for use under the above Program
- EM input to the EFCOG audit schedule to ensure cost effective and efficient use of limited resources (Attached)
- EM ensure that contractors understand their responsibility to evaluate the audit reports and make their own determination as to the adequacy for specific suppliers meeting the quality and technical requirements on a case-by-case basis
- EM should issue a contract clause requiring the use of SCQTT SEP.
- EM should conduct audits of the SCQTT SEP to determine compliance with 10CFR830 and NQA-1. Address any gaps identified during audits.

Benefits to EM:

1. Eliminate redundant supplier audits
2. Provide consistent process for performing audits
3. Compliance with 10CFR830 and NQA-1
4. Sharing of audit resources with other DOE organizations and contractors.
5. Allows for simplified EM and Field oversight by conducting joint audits of the SCQTT SEP.
6. Achieves the mission of Project Area 2 by "promoting information sharing, resource sharing and standardization of efforts within EM to improve quality, safety and cost associated with identifying, qualifying and maintaining suppliers".

EM Project Area 2 – Adequate NQA-1 Suppliers
Project Milestone Task 2.11

Scope of Project Milestone Task 2.11:
Evaluate inputs to determine if there are common suppliers being used for nuclear grade procurements within EM. Identify redundant supplier audits being performed by major EM contractors.

Evaluation Summary:

The Team provided inputs from their respective sites on common nuclear grade commodities and suppliers. Additionally, Approved Supplier Lists were obtained from major EM contractors. Our evaluation concluded that there are a number of common suppliers being used for nuclear grade procurements, thereby resulting in redundant supplier audits. The table below identifies the common suppliers, scope of supply, and EM contractors who are maintaining these suppliers on their approved supplier listing.

Supplier Name	Scope of Supply	Qualifying Contractors
ABW Technologies, Inc	Fabrication/Machining Services	EnergySolutions WTS – WIPP SRNS – SRS
Air Techniques International	Testing and Inspection Services	EnergySolutions WTS – WIPP SRNS – SRS Fluor Hanford – Hanford
ARES Corporation	Engineering and Design	EnergySolutions Fluor Hanford – Hanford
Associated Containers Sales	Containers/Packaging	SRNS – SRS Bechtel Jacobs – Oak Ridge
Bios International	Calibration Services	EnergySolutions SRNS - SRS
Bull Run Metal	Containers/Packaging	EnergySolutions WTS – WIPP Fluor Hanford – Hanford Bechtel Jacobs – Oak Ridge
Canberra Industries	Software	EnergySolutions WTS- WIPP SRNS – SRS Fluor Hanford – Hanford Bechtel Jacobs – Oak Ridge
Columbia Energy and Environmental Services	Engineering and Design	EnergySolutions Fluor Hanford – Hanford
Container Products	Containers/Packaging	EnergySolutions WTS – WIPP SRNS – SRS Bechtel Jacobs – Oak Ridge

Container Technologies	Containers/Packaging	SRNS – SRS Bechtel Jacobs – Oak Ridge
Davis Inotek Instruments, LLC	Calibration Services	EnergySolutions WTS – WIPP SRNS – SRS
DSSI (Perma-Fix)	Hazardous and non-hazardous waste management/transportation	EnergySolutions WTS – WIPP
Eberline Services Laboratories	Laboratory Analysis	EnergySolutions Fluor Hanford – Hanford
Energy and Process Corp.	Valves, piping, plate, bar, forging, etc.	EnergySolutions SRNS – SRS SWPF – SRS
EnergySolutions, Federal Services	Hazardous and non-hazardous waste management/transportation	WTS – WIPP Fluor Hanford – Hanford
Flanders Filters	Filters	WTS – WIPP SRNS – SRS Fluor Hanford – Hanford
Fluke Corporation	Electrical Properties Testers Calibration Services	WTS – WIPP SRNS – SRS
I & I Slings	Hoisting/Rigging Equipment	EnergySolutions Bechtel Jacobs – Oak Ridge
Joseph Oats Corporation	Code Pressure Vessels	SRNS – SRS Fluor Hanford – Hanford SWPF – SRS
Myers Container Corporation	Containers/Packaging	WTS – WIPP Fluor Hanford – Hanford
Nova Machine Products	Fasteners	EnergySolutions WTS – WIPP SRNS – SRS Fluor Hanford – Hanford
Nuclear Filter Technology	Filters	SRNS – SRS Fluor Hanford – Hanford
Packaging Specialties	Containers/Packaging	EnergySolutions WTS – WIPP
Packaging Technologies	Containers/Packaging	Fluor Hanford – Hanford SRNS – SRS WTS – WIPP Bechtel Jacobs – Oak Ridge
Petersen, Inc	Fabrication/Machining Services	WTS – WIPP SRNS – SRS
Premier Technology, Inc	Fabrication/Machining Services	WTS – WIPP Fluor Hanford – Hanford
Skolnik Industries	Containers/Packaging	WTS – WIPP SRNS – SRS

		Fluor Hanford – Hanford Bechtel Jacobs – Oak Ridge
Still Water Tool and Manf.	Fabrication/Machining Services	SRNS – SRS SWPF – SRS
Trentec	Class 1E Electrical Equipment	SRNS – SRS Fluor Hanford – Hanford
West Metal Works	Fabrication/Machining Services	EnergySolutions WTS – WIPP

Evaluation Results:

As shown above there were thirty (30) suppliers identified that are used by more that one EM contactor and are therefore consider common suppliers. These thirty common suppliers were evaluated seventy-nine (79) times as shown in the table. This resulted in forty-nine (49) redundant audits/evaluations being performed by these contractors. The team believes that this level of redundancy is conservative since not every approved supplier listing within EM was included in this evaluation.

Recommendation:

None, these results were factored into the evaluation required in Project Milestone Task 2.10 and 2.12 regarding joint supplier audits by EM contractors.

EM Project Area 2 – Adequate NQA-1 Suppliers
Project Milestone Task 2.13

Scope of Project Milestone Task 2.13:
Evaluate the possibility of integrating EM procurement activities with other supplier initiatives such as Nuclear Energy Institute (NEI), Nuclear Utilities Procurement Issues Committee (NUPIC), Nuclear Industry Audit Committee (NIAC), etc.

Evaluation Summary:

An evaluation of the supplier qualification activities associated with NEI, NUPIC and NIAC were evaluated with the following results:

- NEI is the policy organization of the nuclear energy and technologies industry. NEI does not participate in the qualification of nuclear suppliers nor do they maintain any type of approved suppliers listing for the industry.

- NUPIC was founded in 1989 by the nuclear utility industry for the purpose of performing joint supplier audits and sharing procurement issues. NUPIC membership is restricted to USNRC 10CFR50 licensees and international nuclear utilities. NUPIC performs joint supplier audits and shares the results with members. NUPIC does not maintain an "Approved Supplier List". Each member utility is responsible for evaluation the NUPIC audits prior to their use of the suppliers.

- NIAC is an organization whose membership consists of nuclear suppliers, both commercial and government companies. NIAC's purpose is to share audit results among its membership. NIAC does not perform joint audits nor do they maintain an "Approved Supplier List". Audits are performed by Certified Lead Auditors under the auditing company's QA Program and procedures. Audit reports may be shared by members if the audited supplier approves a request for the audit to be shared. Many DOE EM contractors are members of NIAC.

Recommendation:

Implement a joint supplier audit process, including the sharing of audit results, as recommended in Task 2.10 and 2.12. Further recommend that EM encourage their contractors to participate in NIAC. Typically, a company can obtain 4 audit reports through NIAC for every 1 supplier audit they perform. A reduction in the number of supplier audits by a ratio of 4 to 1 when using NIAC can create considerable cost savings.

Department of Energy
Washington, DC **20585**

JUN 22 2009

MEMORANDUM FOR DISTRIBUTION

FROM: DAE Y. CHUNG
DEPUTY ASSISTANT SECRETARY FOR
SAFETY MANAGEMENT AND OPERATIONS
ENVIRONMENTAL MANAGEMENT

SUBJECT: Issuance of the Office of Environmental Management Nuclear Supplier Alert System

The Office of Environmental Management (EM) and the Energy Facility Contractors Group (EFCOG) Quality Assurance (QA) Corporate Board has developed a Nuclear Supplier Alert System as part of its EM/EFCOG QA Improvement Project Plan. This Corporate Board deliverable was approved by the voting members in the last meeting held on March 19,2009. This system is critical to mitigating past weaknesses in supplier qualification and oversight that have resulted in: 1) project cost overages; 2) schedule delays; 3) decrease in safety margins; and 4) regulatory enforcement civil penalties.

The Nuclear Supplier Alert System is intended to communicate a finding or a nonconformance that is determined to be significant as defined by NQA-1 requirements and that could have a wide-ranging impact throughout the Department of Energy (DOE) or even throughout the commercial nuclear industry. Examples of findings that should be considered for a Nuclear Supplier Alert include, but are not limited to, are: 1) failure to implement major portions of the supplier's QA program; 2) delivery of defective safety class or safety significant structures, systems or components; and 3) delivery of suspect/counterfeit items. The intended scope of the Nuclear Supplier Alert System includes both nuclear grade equipment and service suppliers.

The Nuclear Supplier Alert System, however, does not relieve the prime contractors of the'responsibility to assess their quality suppliers regularly in accordance with their established supplier qualification program. Contractors should protect the information under consideration for a Nuclear Supplier Alert during the entire process.

It is my expectation that all EM field elements implement the Nuclear Supplier Alert System process, using the attached process steps and template, as soon as a significant finding or nonconformance is discovered at a supplier. The Nuclear Supplier Alert should be forwarded via e-mail (Sandra.Waisley@em.doe.gov) to the Office of Standards and Quality Assurance, which will then issue the Nuclear Supplier Alert to the EM-complex and other DOE offices by email.

If you have further questions, please call me at (202) 586-5151 or Sandra Waisley at (202) 586-3087.

Attachment

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FCOG Energy Facility Contractors Group

Office of Environmental Management And Energy Facility Contractors Group

Quality Assurance Improvement Project Plan

Project Focus Area	Task # and Description	Deliverable
Project Area 2: Adequate Nuclear Suppliers	Task #2.14 - Develop a formal process or "alert" system for documenting and notifying the EM-complex and other DOE offices of nuclear suppliers not meeting quality assurance (QA) requirements.	EM QA ALERT System Process (Flow Diagram, ALERT Template) and Recommendation

Approvals:	Yes/No/NA
Project Managers: S. Waisley, D. Tuttel (3/19/09)	Y
Executive Committee: D. Chung, J. Yanek, N. Barker, D. Amerine (3/19/09)	Y
EM QA Corporate Board: (3/19/09)	Y

EM Project Area 2 – Adequate NQA-1 Suppliers
Project Milestone Task 2.14

Scope of Project Milestone Task 2.14:

Develop a formal process or "alert" system for documenting and notifying the EM-complex and other DOE offices of nuclear suppliers not meeting quality assurance (QA) requirements.

Evaluation Summary:

In response to a Department of Energy (DOE) Environmental Management (EM) challenge to improve quality assurance performance across its operations, the EM/Energy Facility Contractors Group (EFCOG), in cooperation with EM senior leaders, developed a Quality Assurance Improvement Project Plan. During the evolution of the Project Plan, one of the tasks assigned to EM Project Area 2 – NQA-1 Suppliers was the: development of a formal process for an "Alert" system for documenting and notifying the EM-complex and other DOE offices of nuclear suppliers who fail to meet the QA requirements defined in 10CFR830, DOE Order 414.1.c. or NQA-1. The Alert system is intended for findings or nonconformances that are determined to be significant as defined by NQA-1 and that could have a wide-ranging impact throughout EM, DOE, or even throughout the industry. Examples of findings that should be considered for an Alert include, but are not limited to: 1) failure to implement major portions of the supplier's QA program; 2) delivery of defective safety class or safety significant structures, systems or components; 3) delivery of suspect/counterfeit items. The intended scope of the Alert system includes both nuclear grade equipment and service suppliers.

The Alert system does not relieve the contractor(s) of the responsibility to assess their quality suppliers regularly in accordance with their established supplier qualification program. Contractors should protect the information under consideration for an Alert during the entire process.

Recommendation:

It is recommended that EM adopt the process described below as their Supplier Alert System and convert this information into a formal EM procedure for implementation across the EM-Complex. The process should undergo DOE legal review to ensure that there will be no legal/liability issues arising from the issuande of the Alerts.

The following defines the Supplier Alert process. These steps follow the process flow as illustrated in Figure 1.

Step 1

Contractor identifies supplier's failure to meet QA requirements. A supplier's failure to meet QA requirements might be identified through methods such as audits, surveillances, inspections, or supplier submittals of Nonconformance Reports (NCRs). However, in some cases other events, such as a whistleblower activities followed by a formal investigation, may initiate this process.

An audit or surveillance performed for the initial qualification of a supplier would typically not trigger this process, unless that supplier has already delivered items or services to other EM contractors. In those cases a Supplier Alert may be warranted. NCRs that are repetitive or critical in nature may also prompt a Supplier Alert.

Step 2

The contractor is responsible for initially determining the significance of an identified issue/finding based on the criteria and requirements of its corrective action program. Contractors are also responsible for initially determining if a Supplier Alert should be issued based on the guidance given in this process plan. Examples of significant issues are vendor removed from ASL (Approved Supplier List), falsified documents, SCAQ (Significant Condition Adverse to Quality), repetitive quality issues, etc.

If the contractor determines that the issue does not warrant a Supplier Alert, the issue is processed through the contractor's established corrective action process.

Ster, 3

If the contractor determines that the issue does warrant a Supplier Alert, the contractor shall immediately draft the Supplier Alert as defined in this process plan. The draft Supplier Alert should only contain the facts of the case without speculation such as causes and impacts. The contractor should notify the supplier that their quality issues are under consideration for a possible Supplier Alert within EM. (A suggested Supplier Alert Form is attached).

Step 4

The contractor submits the draft Supplier Alert to the site's EM QA Representative for review and concurrence. The submittal of the draft Supplier Alert shall occur within five (5) working days of the contractor detennining that a Supplier Alert is warranted.

Ster, 5

The site's EM QA Representative reviews the draft Supplier Alert and discusses the information with the contractor as necessary. If the site's EM QA representative concurs that a Supplier Alert is necessary and the documentation is complete, the site EM QA representative ensures the draft Supplier Alert receives legal review by the site's legal representative. Following site legal review, the draft Supplier Alert is forwarded to the EM Office of Standards and Quality Assurance at Headquarters (EM HQ). If the local EM QA representative determines that the issue is not significant or has comments, the draft Supplier Alert is returned to the contractor for disposition or revision as necessary.

Step 6

The site's EM QA Representative promptly forwards the draft Supplier Alert to EM HQ for review and concurrence.

Step 7

EM HQ reviews the draft Supplier Alert and discusses the information with the site's EM QA Representative and contractor, as necessary. If the EM HQ concurs that an Alert is necessary and the documentation is complete, the process continues. If the EM HQ determines that the issue is not significant or has comments, the draft Supplier Alert is returned to the originating site for disposition or revision as necessary.

Step 8

EM HQ finalizes the Supplier Alert and distributes it within five (5) working days of receipt of the draft Supplier Alert.

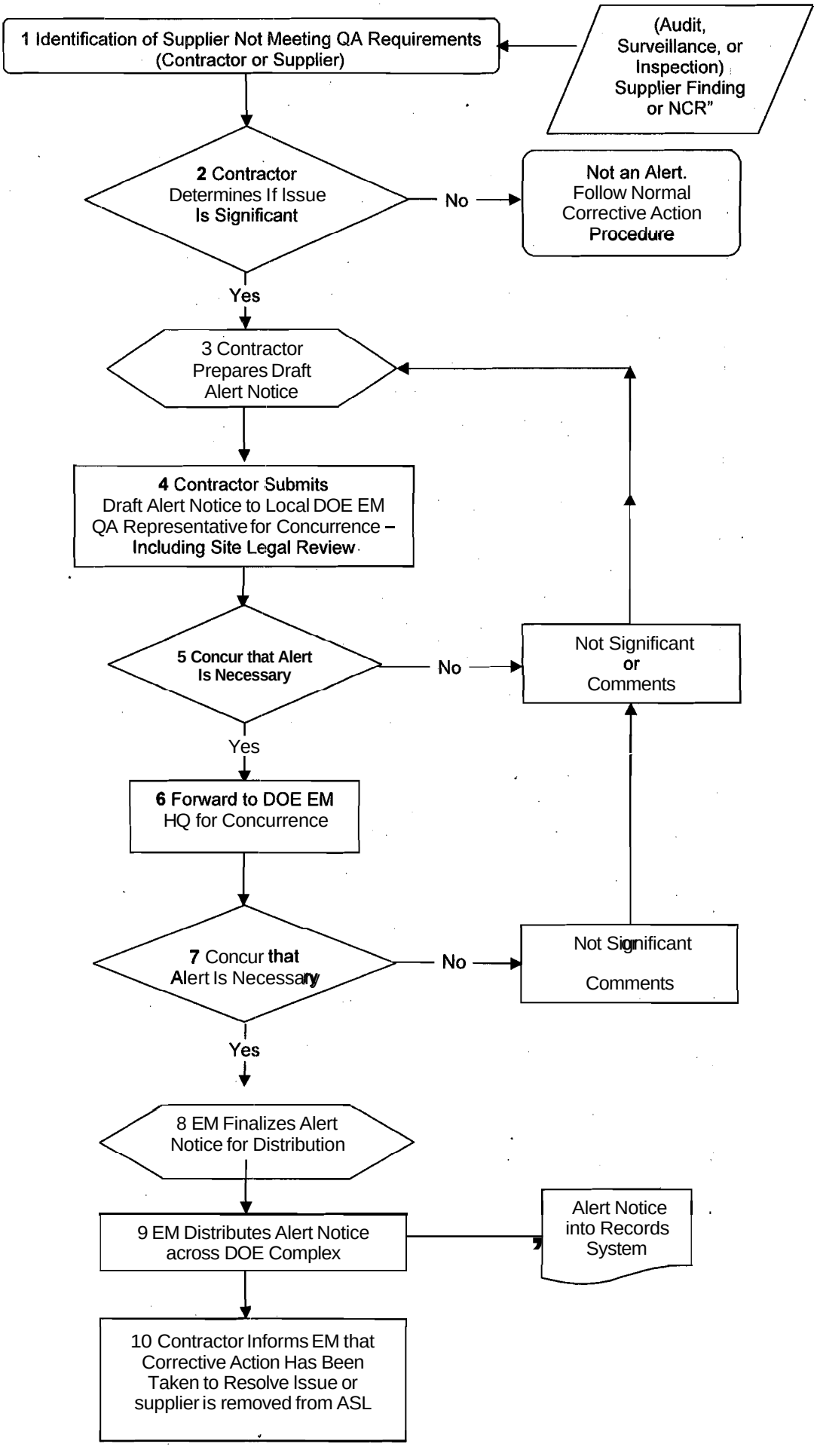
Step 9

EM HQ distributes the Supplier Alert across the EM Complex per a standard distribution list. Distribution includes the DOE Office of Health, Safety and Security (HSS) with possible distribution across the DOE Complex, if warranted. If the issue could have implications beyond DOE, EM HQ will notify other agencies as necessary. The Supplier Alert is entered into a records system at EM HQ and HSS. Any supporting documentation is included to make a complete and retrievable record.

Step 10

The contractor that identified the supplier issues that resulted in a Supplier Alert being issued is responsible for notifying EM HQ when adequate corrective actions have been taken to resolve the issue. EM HQ will provide this update to the organizations, individuals and suppliers that received the Supplier Alert. If the contractor elects to remove the supplier from their ASL and ceases to have the supplier provide services/items to them, the contractor shall inform EM HQ. EM HQ will provide this information to the standard Supplier Alert distribution list.

Supplier Alert Process Flowchart



Nuclear Suppliers ALERT

[Quality Assurance Concern]

No. **Date:**

PURPOSE:

BACKGROUND:

IMPLICATIONS:

RECOMMENDED ACTIONS:

POINT OF CONTACT:

EM Environmental Management
safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

EFCOG *Energy Facility Contractors Group*

Office of Environmental Management and Energy Facility Contractors Group

Quality Assurance Improvement Project Plan

Project Focus Area	Task # and Description	Deliverable
Project Area 2: Adequate NQA-1 Suppliers	Task #2.22 Submit Project Plan for Implementing EM and EFCOG Joint Supplier Evaluation Program	Implementation Plan

Approvals Needed:	**Yes/No/NA**
Project Managers: S. Waisley, D. Tuttel (7/09)	Y
Executive Committee: D. Chung, J. Yanek, N. Barker, D. Amerine (7/09)	Y
EM QA Corporate Board:	Y

1 BACKGROUND

The Department of Energy (DOE) Office of Environmental Management (EM) has experienced increasing difficulty finding suppliers that are adequately qualified to provide items and services in accordance with the standards of the Quality Assurance Requirements for Nuclear Facility Applications (NQA-1) from the American Society of Mechanical Engineers (ASME). Given that the numbers of those suppliers have been decreasing, EM and its contractors have been duplicating qualification audits of those common few NQA-1 suppliers.

Complicating the issue further is the mandated selection process that must be followed by EM to select suppliers. To illustrate the complications of working with EM, the following needs to be considered:

- EM corporate quality policy and its nuclear safety regulations require procured items and services to meet more rigorous quality requirements than prospective suppliers have experienced with other customers.
- EM also requires prospective suppliers to be evaluated and selected on the basis of specified criteria.
- Lastly, EM requires verification that approved suppliers have established and implemented their processes to provide the specified items and services.

Consequently, the perception from many prospective suppliers is that it is not worth their time and expense to pursue EM contracts. Procurements outside the realm of EM have been such that EM business was not a necessity for success.

2 CURRENT CONDITIONS

Redundant audits of the same supplier have lead to the following undesirable conditions:

- Inconsistent reviews of shared suppliers lead to potential differing interpretations on implementing the standard EM quality requirements

- Organizations within EM are not utilizing all available expertise to evaluate its suppliers, resulting in a less than rigorous review of the shared supplier
- Project schedule slippage due to delays in evaluating a supplier that can only accommodate one audit team from one organization at a time

Whereas, a joint supplier evaluation program of common suppliers would enable the following benefits[1]:

- Decrease Project/Cost Risks
- Achieve Cost Avoidance & Cost Savings
- Improve Supplier Performance
- Decrease Risk of Suspect/Counterfeit Items
- Improve Credibility with Common Suppliers

EM can benefit from those lessons learned that EFCOG already has put in place by adopting EFCOG's Supplier Evaluation Program.

3 GOALS

This Quality Assurance Improvement Project Plan will achieve the following goals:

- Eliminate redundant supplier evaluations
- Establish a consistent approach to evaluating suppliers by a standardized set of quality requirements (i.e., the EM Corporate Quality Policy and the EM Quality Assurance Program, EM-QAP-001)
- Improve the overall quality of supplier evaluations

These goals are interrelated as it is perceived that eliminating redundant audits will lead to a focused coordinated review of common EM suppliers. This along with the consistent approach evaluating suppliers with a standardized set of requirements will ultimately lead to improving the overall quality of supplier evaluations.

[1] Source: EFCOG, "Supplier Evaluation/Qualification Initiative", November 30, 2004

4 ANALYSIS

There is an important distinction between a consolidated list of common suppliers audited under a Joint Supplier Evaluation Program and an EM complex-wide Approved Suppliers List that must be discussed further. An Approved Suppliers List for the EM complex would represent the broad approval of suppliers without requiring additional actions by EM sites to use those suppliers. This broad approval (whether implicit or not) would create unacceptable legal risk with its effect on liability issues arising from an Approved Suppliers List. A consolidated list of common suppliers audited under a Joint Supplier Evaluation Program would not contain such endorsements (implied or otherwise). Rather, it would merely serve as an exchange of information that EM sites could use to make their own determination on the acceptability of a supplier.

5 PROPOSED ACTIONS

The EFCOG Supply Chain Quality Task Team (SCQTT) has established a Supplier Evaluation Program (SEP) that addresses joint evaluations of suppliers that avoids the pitfalls previously mentioned. This implementation plan outlines how EM will integrate its supplier audits and evaluations into the SCQTT SEP by the following actions:

- EM and the SCQTT will adapt the SEP to accommodate the suppliers from EM
- EM will consolidate its list of suppliers and merge it with the SCQTT list of suppliers
- EM and the SCQTT will consolidate their supplier audit schedules into one master audit schedule
- The SCQTT working with EM will establish an additional protocol for those EM suppliers to follow the EM Quality Assurance Program, which adopts the national consensus standard of ASME NQA-1. This protocol will still allow for compatible evaluations done on EM suppliers such that they can still be used by the EFCOG SEP participants

6 RESPONSIBILITIES

The following groups or individuals have responsibilities in this plan:

- Idaho National Laboratory Supplier Management Program Lead:
  This individual is the current team leader for the Supply Chain Quality Task Team. This individual will be point of contact from EFCOG in this effort to integrate EM into their Supplier Evaluation Program.
- EM:
  Individuals from the EM Office of Standards and Quality Assurance will serve as the points of contacts between the INL Supplier Management Program Lead and the EM sites as needed during the process of integration and consolidation as described in this plan.

7 IMPLEMENTATION PLAN

The INL Supplier Management Program Lead, who currently leads the SCQTT, will incorporate an additional 22 identified EM suppliers into the current EFCOG Common Commodity List and Joint Audit Schedule. The anticipated completion date for this task is four (4) weeks after authorization from EM Corporate Quality Assurance Board.

The INL Supplier Management Program Lead in coordination with EM will develop and implement a complex-wide Electronic Management System (using established Oracle Aqualogic Portal controls) in direct support of the consolidated supplier evaluation program. The anticipated completion date for this task and associated subtasks is approximately six (6) weeks after initial authorization; pending funding authorizations and Information Technology work loads. The subtasks include the following system components:

- Program administrative controls (procedures, instructions, memorandums, forms, and attachments, etc.)
- System security and access controls
- A new EM/EFCOG joint audit schedule providing real-time updates

- A new EM/EFCOG common commodity list. The current number of EFCOG common suppliers is approximately 30. Integrating the additional EM suppliers would increase the supplier base by an additional 22 suppliers
- Mutually agreeable and exchangeable audit evaluation information
- Standardized audit notifications (e.g., meetings, alerts, memorandums)
- Records repository for controlled supplier evaluation reports, corrective action documents, checklists, plans, auditor qualifications, and other general supplier information

The INL Supplier Management Program Lead in coordination with EM will upload program documentation, schedules, qualifications, reports, and all other relevant information into the Electronic Management System. The anticipated completion date for this task will be three (3) weeks after development of the Electronic Management System.

The INL Supplier Management Program Lead along with EM will perform a gap analysis review between NQA-1-2000 and NQA-1-2004 requirements and establish new matrix documents (as needed) for commodities (materials or services) in support of the listed EM suppliers. The anticipated completion date for this task, which will require EM Site participation, will be four (4) weeks.

Working cooperatively, EM and the INL Supplier Management Program Lead will develop mutual administrative controls to accomplish the following:

- Further define roles and responsibilities
- Establish primary POCs at each site
- Further define audit reporting minimum requirements
- Define review and approval process
- Develop formal Lead Auditor review and approval validation
- Obtain auditor disclosure statements

To further ensure success of this effort, EM will support and to commit participating on scheduled conference calls, providing representatives to attend meetings with the SCQTT,

dedicating resources to participate on audits, and providing assistance to SCQTT, as needed, in support of the Supply Chain needs (e.g., evaluation basis development specific to commodities).

8 FOLLOW-UP ACTIONS

After development of the new joint SEP between EFCOG and EM, EM will coordinate feedback from its SEP participants after each audit for the first year to gather lessons learned for continuous improvement purposes. EFCOG SCQTT will be encouraged by EM to do the same with its SEP participants. In addition, EM HQ will conduct a survey after the first year of all the EM site SEP participants to gauge the acceptability of the program and look for ways to improve on it. The results of the surveys and the feedback from the individual EM SEP participants will be collated and reported on at a future EM QA Corporate Board Meeting.

9 FUNDING REQUIREMENTS

As outlined in Attachments 2 and 3, the EMS will cost approximately between $25k and $30k, with about $100.00 monthly service fees after the initial start-up. In addition, one Full Time Equivalent (FTE) from INL Supplier Management Program Lead will be needed for the estimated four (4) months to set-up, integrate, and consolidate EM into the Supplier Evaluation Program. EM and its sites will have to contribute some fractional support equivalent to 1 or 1.5 FTEs for roughly the same four-month period.

Attachment 1

The Supplier Evaluation Program Document from the Energy Facility Contractors Group Supply Chain Quality Task Team

http://www.efcog/wg/ism_qa

Energy Facility Contractors Group (EFCOG)
Supply Chain Quality Task Team
Supplier Evaluation Program

August 2008

Attachment 2

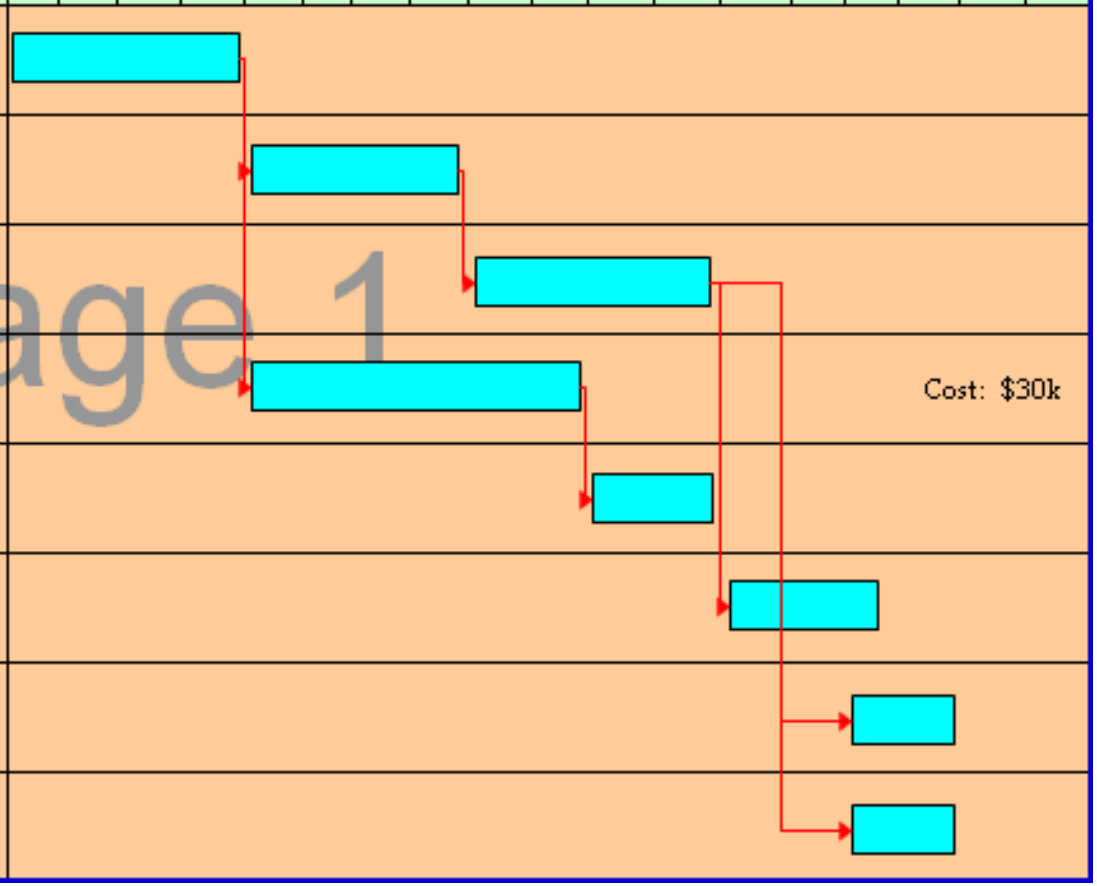
Implementation Path by Tasks for the EM/EFCOG Joint Supplier Evaluation Program

Task #	Task Description	Schedule	Cost	FTE	Responsibility
1	Consolidate and integrate the 22 identified EM suppliers into the current EFCOG Common Commodity and Joint Audit Schedule	4 weeks		1	INL Supplier Management Program Lead, who currently leads the SCQTT
2	Develop a complex-wide Electronic Management System (EMS) using established Oracle Aqualogic Portal controls in direct support of the consolidated supplier evaluation program.	6 weeks	EMS set fee estimated at $25 – 30 K for initial set up fees and a $100.00 monthly service fee thereafter	1	INL Supplier Management Program Lead
3	Upload the information into the Electronic Management System.	3 weeks*		1	INL Supplier Management Program Lead
4	Develop Evaluation Basis Matrix Documents and Conduct Gap Analysis (i.e., NQA-1 2000 vs. 2004): Conduct gap analysis on existing NQA-1 matrix documents specific to each commodity. Develop new NQA-1 matrix documents for EM commodities (materials and services).	4 weeks	Site Participation	1	INL Supplier Management Program Lead with EM Site participation
5	Establish or revise administrative controls to: further define roles and responsibilities; establish primary POCs at each site; further define audit reporting minimum requirements; define review and approval process; develop formal Lead Auditor review and approval validation; obtain auditor disclosure statements.			1	INL Supplier Management Program Lead
6	EM shall coordinate representatives to participate: on scheduled conference calls; in meetings; audits (to include funding for associated travel); with special assignments for support as needed (e.g., evaluation basis development specific to commodities).			1	EM HQ

Attachment 3

Implementation Schedule for the EM/EFCOG Joint Supplier Evaluation Program

ID	Task Name	Start	Finish	Duration
1	Authorization	8/3	8/28	4 w
2	Consolidation	8/31	9/25	4 w
3	Develop Evaluation Basis Matrix Documents and Conduct Gap Analysis	9/28	10/23	4 w
4	Electronic Management System	8/31	10/9	6 w
5	Database/ User Interface Validation	10/12	10/23	2 w
6	Electronic System Information Data Entry	10/26	11/6	3 w
7	Database User Test Period	11/6	11/20	2 w
8	Assign Resources and Initiate Audit	11/6	11/20	2 w



Supply Chain Quality Task Team
Joint Audit Schedule
January 20, 2009

Audit Information		Audit Schedule			Audit Team Members		
Supplier & Location	**Audit Scope**	**Audit Planned**	**Audit Performed**	**Audit Closed**	**Audit Team Lead**	**Audit Team Members/Commitments**	**Users**
Flanders Filters Washington, NC	HEPA Filter and Housing Matrix	Jan/Mar 2009 (SRS) May 2009 (WIPP)? 6/2009 (INL) 12/2009 (LANL) 5/2010 (ANL) 5/2010 (PNNL)				**SRS** **INL** **ORNL**	ANL INL LANL PNNL SRS WIPP
Nuclear Filter Technology Golden, CO		Find audit support **Jan 2009 (LANL & SRS)**				**WIPP** **LANL**	INL LANL LLL NSTec Oak Ridge Pentex SRS WIPP
American Air Filter Columbia MO	HEPA Filter and Housing Matrix	Not at this time					BNL LANL LLL NTS ORNL
~~**Camfil Farr Washington, NC**~~	~~HEPA Filter and Housing Matrix~~	~~2/14/09 (?LANL)~~					~~LANL~~
Nova Machining Middleburg Heights, OH		11/2009 (LANL) 11/2010 (ANL)				**SRS** **INL** **ANL**	ANL INL LANL ORNL SRS Pentex WIPP

Audit Information		Audit Schedule			Audit Team Members		
Supplier & Location	**Audit Scope**	**Audit Planned**	**Audit Performed**	**Audit Closed**	**Audit Team Lead**	**Audit Team Members/Commitments**	**Users**
Swagelok **Solon, OH**		1/2009 (LANL) 2/2009 (INL) ANL				**INL** **ORNL?** **ANL**	ANL INL LANL LLL Y12
Energy & Process Corp. **Tucker, GA**	Nuclear Raw Material Matrix	Jan/Mar 2009 (SRS) 3/2009 (LANL) 9/2009 (INL)				**SRS** **INL** **ORNL**	ANL INL LANL LLL SRS
Canberra Industries **Oak Ridge, TN**	Radiation Detection and Analysis Matrix	**TBD**				**ORNL** **SRS**	LLL SRS
Fluke **Everett, WA**		4/2010 (LANL)					BNL LANL LLL WIPP
Canberra Industries **Meriden**	Radiation Detection and Analysis Matrix	8/2009 (LANL) 9/2009 (INL)				**BNL** **INL**	INL LANL WIPP
Petersen Inc **Ogden, UT**	Machine/Fabrication without Design Responsibility Matrix Other?	1/2009 (LANL) 4/2009 (SRS)				**SRS** **INL**	INL LANL LLL SRS WIPP
Matheson Tri-Gas Inc **Neward, CA**						**ORNL ?** **WIPP ?**	LLL ORNL WIPP
Scott Specialty Gases **Longmont, CO**		8/2009 (LANL) 7/2010 (PNNL) WIPP				**LANL?** **WIPP?**	ANL BNL LANL LLL ORNL PNNL PX WIPP
Praxair, Inc						**?**	BNL INL LLL

Audit Information		Audit Schedule			Audit Team Members		
Supplier & Location	**Audit Scope**	**Audit Planned**	**Audit Performed**	**Audit Closed**	**Audit Team Lead**	**Audit Team Members/Commitments**	**Users**
Air Liquide						?	ANL LLL PNNL WIPP
Central Research Lab **Red Wing, MN**		6/2010 (LANL) 7/2010 (INL)				?	INL LANL LLL
Skolnik Industries **Chicago, IL**		Target March 2009 (LANL) Schedule with PMC				**SRS** **WIPP** **ANL**	LANL **SRS** **WIPP** **ANL**
Myers **(define location)** **Grief** **(define location)** **Ionex** **Lafayette, CO**		Myers - 8/2009 (LANL) Grief - 1/2010 (LANL)- Ionex - 9/2009 (LANL)				**Not at this time**	INL LANL
Ludlum **Sweetwater, TX**		6/2009 (LANL) WIPP				**LANL?** **WIPP ?**	LANL WIPP