Best Practice # 142

Best Practice Title: Evaluation and Acceptance of Commercial Grade Items and Services

Facility: Multiple.

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Brief Description of Best Practice:

The Commercial Grade Dedication (CGD) Subgroup determined that sites would benefit by having access to a sample procedure and plan to model evaluation and acceptance of commercial grade items (CGI) and commercial grade services (CGS). The subgroup developed an example procedure to establish the process for performing the technical evaluation and selecting acceptance methods for CGI and CGS, including software, for applications that require performance of a safety function.

Why the Best Practice was used:

Implementing CGD programs in accordance with ASME NQA-1 are relatively new to Department of Energy (DOE) sites. EPRI guidelines and 10 CFR Part 21 formed the basis for CGD specifically in the commercial nuclear industry. ASME NQA-1 expanded on the EPRI guidelines, but leaves the process for implementing the requirements to the project/facility specific QA program. There are a multitude of CGD programs and procedures being used today. Members recognized that consistency in certain elements and approaches across the DOE complex will be of benefit when sharing information, as well as for the suppliers who must provide input for the evaluations.

What are the benefits of the Best Practice:

There is a multitude of CGD programs and procedures that vary in effectiveness. Incorporating the experience and lessons learned from the commercial nuclear industry, DOE sites, and suppliers of nuclear items and services into a collaborated example procedure saves sites from researching and developing a process on their own, as well as providing a model that benefits from the collective experience of the CGD subgroup members. The sample procedure can be used as a consistent and significant starting point for developing project/facility specific implementing CGD programs and procedures.

What problems/issues were associated with the Best Practice:

None. This example procedure incorporates Subject Matter Expert experience and lessons learned from the commercial nuclear industry and DOE sites. It is consistent with a recent collaboration effort that involved Uranium Processing Facility [UPF] Project (Y-12), Mixed Oxide (MOX) Project (Savannah River Site), Waste Treatment Project (Hanford), Chemistry and Metallurgy Research Replacement [CMRR] Project (LANL), Bechtel Systems and Infrastructure input and associated local NNSA Site Offices.

How the success of the Best Practice was measured:

The CGD subgroup was able to develop a model procedure that represented Best Practices and lessons learned across several large projects and multiple DOE sites. A common example procedure provides the ability to share CGD Plans by taking advantage of existing knowledge/approaches and increasing effectiveness/efficiency in producing CGD plans. This shared vision allows for consistency in the development of CGD plans across the DOE complex. Success is measured by elements of this model procedure being adopted at several DOE Sites.

Description of process experience using the Best Practice:

The CGD process described in the example procedure has been successfully executed at the Waste Treatment Plant (Hanford) and is currently being used at Y-12. It supports ISMS Core Function 1, *Define Work* and Core Function 3, *Develop Controls*.

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Link to Example Plan:

The example procedure for evaluation and acceptance of commercial grade Items and services is found on the EFCOG Engineering Practices Working Group Commercial Grade Dedication Subgroup web site:

http://efcog.org/wg/ep_cgd/docs/archives/Eval_%20Acceptance_Commercial_Grade_Items_%20Services_06-06-2012.doc