

## Best Practice – NNSG Generator Waste Certification Program Assessments

**Facility:** All (EM and NNSA)

**Best Practice Title:** Effective Use of Site-specific Assessments by Waste Generators in Preparation for Facility Evaluations by the NNSG Radioactive Waste Acceptance Program

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**Brief Description of Best Practice:** The overall objective of this Best Practice is to assist NNSA/NFO in providing additional assurances to their State regulator and Stakeholders that accurate and adequate characterization is performed on all wastes shipped to the NNSG for disposal. During the course of their normal contractor operations, NNSG waste generators routinely undergo multiple assessments of their waste characterization, packaging, transportation, quality assurance, training, sampling and analysis, radiological control, and related waste management functions. Results of assessment activities (audits and surveillances) are documented and approved at each site.

In order to capture and take advantage of the relevant program assessment information that is routinely being acquired at generator sites, EFCOG has recommended that the generator Waste Certification Officials (WCOs) compile and make available to RWAP (in advance of scheduled Facility Evaluations) a list of the recent site-specific assessment activities that they feel are most relevant to planned RWAP lines of inquiry. Examples of relevant site assessments include, but are not limited to, the following:

- The most recent independent/external certification program assessment, or compilation of internal surveillances conducted during the prior 12 months (currently required by the NNSG WAC);
- Internal management assessment(s) conducted by generator's organization that cover topics involving quality assurance, waste characterization, waste tracking, records management, equipment calibration, vendor procurement, transportation & packaging compliance, software validation, or training validation;
- Recent DOE-performed assessments – such as DOE O. 435.1 compliance evaluations, Facility Representative inspections, DOECAP laboratory audits (currently an NNSG WAC requirement when treatment is performed by a commercial facility);
- Resolution summaries for corrective actions implemented in response to deficiencies in the generator's issues management system that are determined by the WCO to be relevant to (affecting the quality of) waste certification activities;
- Summary of the WCO's actions taken during the period since the last RWAP audit/surveillance to evaluate and measure the overall effectiveness of the generator's NNSG certification program (this may include his/her summary of selected activities described above and how the results demonstrated program rigor).

Consideration by the NNSG Radioactive Waste Acceptance Program (RWAP) of these additional assessments is not intended to replace the mandatory RWAP Facility Evaluation process but to increase regulatory and other Stakeholder confidence that the RWAP process ensures total compliance by NNSG generators with the NNSG Waste Acceptance Criteria (NNSG WAC).

**Why the best practice was developed:** During the December 2014 NNSG Waste Generator Workshop, generators indicated a preference that NNSG not conduct more frequent site Facility

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Evaluations and they requested that consideration be given for site-specific peer reviews and audits/assessments that are routinely being performed at their sites. The current RWAP process that DOE and Stakeholders have accepted is demonstrating that generators are in compliance with the NNSG WAC through the generator surveillance/audit process - accomplished through RWAP Facility Evaluations. Initial discussions took place about the feasibility of incorporating generator internal assessments, independent assessments, and other methods used to validate compliance with the NNSG WAC.

NNSA/NFO requested that EFCOG Waste Management Working Group (WMWG) lead a team to assess the relevance of and document the various validation activities that generators are currently performing. Based on the results of this effort and other considerations, future adjustments may be made in how NNSG schedules and conducts its surveillance and audit activities. Demonstration of additional generator site/program scrutiny will help strengthen waste certification programs in the view of NNSG Stakeholders and confirm that RWAP is not the only function that is performing assessments at each facility. It will also provide a better appreciation for the generators' compliance efforts and the reliability of their certification programs.

**What are the benefits of the best practice:** Implementation of the recommendations in this Best Practice will enable NNSA/NFO to provide additional assurances to their State regulator and Stakeholders that accurate and adequate characterization is performed on all wastes shipped to the NNSG for disposal. Consideration and incorporation by RWAP of the additional generator assessments described above will enhance the overall facility evaluation process and increase both State and Stakeholder confidence that, together, the generator waste certification process and RWAP Facility Evaluations ensure ongoing total compliance by NNSG generators with the NNSG WAC.

This process provides the rationale by which approved NNSG generators can take credit for other (internal and external) program assessments that have been conducted on their waste certification processes and procedures – including independent assessments, internal assessments, outside reviews by organizations other than RWAP, local DOE Facility Representative inspections, and related activities. Incorporation of other generator assessment activities will allow RWAP to focus more contact time and effort, while at the generator's facility, on those aspects of the certification program that have not recently had some relevant onsite evaluation or those for which corrective actions have been identified but not fully implemented.

**What problems/issues were associated with the best practice:** Since waste generator organizations are separate corporate entities that support different DOE sites, each of which has established its own operating rules and procedures, it is recognized that a "one size fits all" approach to RWAP Facility Evaluations may not be the most effective mechanism to measure generator performance against NNSG WAC requirements. Historically, the RWAP assessment process has focused on several key areas of program functions – with RWAP subject matter experts performing evaluations of those functions against a standard set of expectations. Incorporation of additional site-specific evaluation results will support this process by highlighting generator program performance results that are directly relevant to achieving and maintaining the desired level of waste certification program effectiveness and validation.

**How will success of the Best Practice be measured:** Section 5.9 of the NNSG WAC (Rev. 10a) requires that approved waste generators periodically assess their certification programs to ensure continued compliance. In addition, Section 5.10 requires that generators perform an annual independent assessment to verify compliance and promote process improvement. Incorporation of additional generator assessment inputs to the RWAP Facility Evaluation Process should allow NNSG auditors to focus and direct more of their onsite activities in areas of concern (based on prior observations or corrective actions) and to cover more topics than might be possible otherwise –

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given the limitations imposed by the number of audit personnel available and actual contact times that can be scheduled during a formal Facility Evaluation.

The RWAP organization has undertaken a comprehensive Process Improvement Initiative that will involve implementation of process enhancements/changes - followed by collection of feedback regarding the effectiveness of those changes. Identification and evaluation of the effectiveness for this Best Practice should occur as part of that management initiative. Ultimately, the success of this and other RWAP process improvements will be reflected by the increase in regulatory and Stakeholder confidence in the overall RWAP effort to ensure full compliance by waste generators with NNSS WAC requirements.

**Conclusion/Summary:** The overall objective for this team review is to assist NNSA/NFO in providing additional assurances to their State regulator and Stakeholders that accurate and adequate characterization is performed on all wastes shipped to the NNSS for disposal. Consideration and incorporation by RWAP of the additional generator assessments described above will enhance the overall facility evaluation process and increase both State and Stakeholder confidence that, together, the generator waste certification process and RWAP facility evaluations ensure ongoing total compliance by NNSS generators with the NNSS waste acceptance criteria.

This review has emphasized the rationale by which approved NNSS generators can take credit for other (internal and external) program assessments that have been conducted on their waste certification processes and procedures – including independent assessments, internal assessments, outside reviews by organizations other than RWAP, local DOE Facility Representative inspections, and related activities. It is intended that incorporation of other generator assessment activities will allow RWAP to focus more contact time and effort, while at the generator’s facility, on those aspects of the certification program that have not recently had some relevant onsite evaluation or those for which corrective actions have been identified but not fully implemented.

### **Reference:**

EFCOG WMWG Report to EM-30 dated April 20, 2015, entitled “EFCOG/WMWG Review – NNSS Generator Waste Certification program Assessments”