

May 25, 2017

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From: Todd Lovinger
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**Re: Annual Report of Activities of the Low-Level Radioactive Waste Forum's
Disused Source Working Group and Part 61 Working Group for the
Period from April 1, 2016 Through March 31, 2017
*Contract DE-NA0003197 (Issued March 31, 2016)***

The following is an annual report of the activities that were carried out during the period from April 1, 2016 through March 31, 2017 pursuant to the Low-Level Radioactive Waste Forum's (LLW Forum's) contract with the U.S. Department of Energy's (DOE's) National Nuclear Security Administration (NNSA) for services of the Disused Source Working Group (DSWG) and Part 61 Working Group (P61WG). The information contained in this report is considered to be proprietary and confidential and should not be shared with outside parties.

The report is necessarily summary in nature. Additional information is available on request.

Progress Made During Reporting Period

Narrative Description of Work Completed

During the period from April 1, 2016 through March 31, 2017, the following activities were undertaken by the Disused Sources Working Group (DSWG) and Part 61 Working Group (P61WG) in conjunction with the Low-Level Radioactive Waste Forum's (LLW Forum's) contract for services with the National Nuclear Security Administration (NNSA):

- plan and develop documents (agenda, reports, and reference materials) for the spring 2016 DSWG meeting that was held in Park City, Utah on April 14-15, 2016;
- draft and execute a consulting contract with Michael Klebe to work as financial surety consultant and communicate workscope, requirements and procedural items;
- reach out to stakeholders in preparation for the spring 2016 DSWG meeting, as well as a proposed summer 2016 meeting to launch a consortium on disused source issues;
- attend, moderate and facilitate spring 2016 DSWG meeting in Park City, Utah including open session with invited guests to discuss broker and processor recommendations and associated white paper;
- coordinate logistics for summer 2016 DSWG meeting including invitation and confirmation of availability re representatives from Organization of Agreement States (OAS), Conference of Radiation Control Program Directors (CRCPD) and Health Physics Society (HPS); review and consideration of facility proposals; and, execution of contract with Embassy Suites Downtown Chicago Hotel for July 7-8 2016;
- attend and participate in the Southwestern Low-Level Radioactive Waste Compact Commission workshop on disused source management and disposition in Berkeley, California on April 26, 2016;
- review, analyze and distribute to DSWG members/staff and other interested stakeholders the U.S. Nuclear Regulatory Commission (NRC) titled, *Financial Planning for Radioactive Byproduct Material—Financial Scoping Study*;
- update and add postings to the dedicated web sites focusing on proper management and disposition of disused sources and 10 CFR Part 61 rulemaking initiative; and,
- review and consider broker and processor proposal for a centralized collection facility for disused sources and receipt of sources on bill of lading;
- complete follow-up tasks and assignments from the spring 2016 DSWG meeting that was held in Park City, Utah on April 14-15, 2016;
- review, analyze, and distribute to DSWG members/staff, LLW Forum members and other stakeholders IN 2016-04, ANSI N14.5-2014 Revision and Leakage Rate Testing Considerations for Type B packages;
- attend and participate in the CRCPD annual meeting in Lexington, Kentucky;
- finalize logistics and arrangements for summer 2016 DSWG meeting with representatives from Conference of Radiation Control Program Directors CRCPD, OAS and HPS at the Embassy Suites Downtown Chicago Hotel on July 7-8 2016;

- review and incorporate comments on draft educational materials for current and prospective licensees of sealed sources;
- research and review information to create and edit Power Point presentation for HPS annual meeting;
- review, analyze, and distribute to DSWG members/staff, LLW Forum members and other stakeholders NRC RIS 2014-08, Revision One;
- draft and update agenda, discussion leader assignments and so forth re summer 2016 meeting in an attempt to launch a consortium on disused source issues;
- prepare, participate and follow-up re call with NNSA consultant about brokers and processors suggestions for improved management and disposition of disused sources;
- organize, print and assemble meeting packets for summer 2016 DSWG meeting;
- prepare, review and edit discussion leader talking points for summer 2016 DSWG meeting;
- attend, participate and facilitate summer 2016 DSWG meeting with organizational representatives in Chicago;
- review U.S. Government Accountability Office (GAO) report re disused source management and disposition; write and distribute memo to transmit to DSWG members and staff, NNSA officials and consultants, and other interested stakeholders;
- attend and participate in the HPS annual meeting in Spokane, Washington from July 17-21, 2016—including participation in special session on sealed source management, presentation on DSWG activities and projects, meeting with NNSA official, meetings with stakeholders, and meeting with HPS Board members;
- write, edit, distribute and post to Resources Page of DSWG web site a News Flash re GAO report and NRC response thereto;
- follow-up with organizational representatives following summer 2016 DSWG meeting, including discussions re appointment of liaisons, next meeting, and path forward;
- layout and artwork on draft educational materials for current and prospective licensees of sealed sources;
- communicate with OAS re development of poster presentation and distribution of educational materials at their annual meeting in Denver in August and research travel arrangements therefore;
- attend, participate and network at Exchange Monitor Publication's Rad Waste Summit re sessions on disused sources, Part 61 rulemaking initiative and other related topics;
- write, edit and distribute information re release of responses to additional questions on Branch Technical Position on Concentration Averaging and Encapsulation;
- development, planning and outreach re planned agenda sessions on source management and disposition, alternative technologies and Part 61 rulemaking activities for fall 2016 LLW Forum and DSWG meetings in Saratoga Springs;
- planning and scheduling re process for development of chart on import and export authorities in response to inquiries from source manufacturers, brokers, processors;
- write, edit, distribute and post to Resources Page of DSWG web site re theft and seeking of recovery of nuclear gauge in West Virginia in mid-September 2016;

- attend, participate and network at National Academies of Sciences (NAS) low-level waste workshop including breakout session on sealed source management in Washington, DC;
- review and incorporate stakeholder comments on draft educational materials for prospective and current licensees of radioactive sources and devices;
- coordination with formal designated liaisons from CRCPD, OAS and HPS re fall 2016 DSWG meeting;
- write, edit and distribute information re release of SRM re reevaluation of tracking and security issues related to Category 3 sources;
- write, edit and distribute information re release of SECY-16-0106 and related documents which seeks Commission approval to publish a final rule in the *Federal Register* that would amend 10 CFR Parts 20 and 61 re licensing requirements for land disposal of radioactive waste;
- work re development of chart on import and export authorities in response to inquiries from source manufacturers, brokers, processors;
- development, planning and outreach for the fall 2016 DSWG meeting that was held in Saratoga Springs, New York from November 8-9, 2016 including finalizing and distributing the agenda and related documents; editing and distributing the updated educational materials for current and prospective licensees of disused sources; and, editing and distributing a newly developed document on compact import and export authorities;
- development, planning and outreach re planned agenda sessions on source management and disposition, alternative technologies and Part 61 rulemaking activities for fall 2016 LLW Forum and DSWG meetings in Saratoga Springs;
- extension of invitations to participate on the LLW Forum's panel at the 2017 Waste Management Symposium to the GAO re GAO-16-330 titled, "Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain" and to the NRC re the Part 61 rulemaking initiative;
- coordination with formal designated liaisons from CRCPD, OAS and HPS re fall 2016 DSWG meeting and follow-up assignments therefrom;
- write, edit and distribute information re the release of SECY-16-0115 (dated October 7, 2016), in which NRC staff seek Commission approval to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources;
- distribute a detailed list of follow-up items, individual assignments and decisions from fall 2016 DSWG meeting in Saratoga Springs;
- follow-up from the fall 2016 DSWG meeting that was held in Saratoga Springs, New York from November 8-9, 2016 including outreach to Board of Directors for CRCPD, OAS and HPS to get their perspectives and input on list of outstanding action items and priorities therefore;
- hold discussions with stakeholders on disposal cost language for educational materials for current and prospective licensees of sealed sources and devices;
- finalize edits, language and artwork for educational materials for current and prospective licensees of sealed sources and devices;

- edit and revise report on compact import and export authorities to include information regarding NORM and TENORM waste in response to inquiries from source manufacturers, brokers, processors;
- conduct development, planning and outreach for the winter 2017 DSWG meeting that was held in San Diego, California from February 6-7, 2017 including reaching out to working group members, staff and organizational representatives re scheduling availability; negotiations with potential facilities; and, submitting an Other Direct Costs (ODC) authorization estimate and request to NNSA;
- initiate development, planning and outreach re potential agenda sessions on source management and disposition, alternative technologies and Part 61 rulemaking activities for spring 2017 LLW Forum and DSWG meetings in Denver, Colorado;
- continue outreach, coordination and planning with designated liaisons from CRCPD, HPS and OAS re winter 2017 DSWG meeting and follow-up assignments from fall 2016 meeting;
- write, edit and distribute information re NRC proposal to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources;
- publish and notify stakeholders of the availability of educational materials for current and prospective licensees of sealed sources and devices and continue communications with the organizational representatives regarding endorsement and distribution;
- write, review and edit the first draft of a disposal cost document that will serve as a companion piece to the educational materials for current and prospective licensees;
- review and edit the third draft of a document on compact import and export permit requirements that was requested by brokers/processors, disposal facility operators and other stakeholders;
- write, edit and distribute information re the *Federal Register* notice that was issued on January 9, 2017 in which the NRC announces that the agency is seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability;
- attend and participate in the mid-year HPS meeting to discuss DSWG and P61WG projects related to the management and disposition of disused sources;
- collect information from five individual states re source calculation and methodology re number of sealed sources;
- attend and participate in the EnergySolutions' conference on low-level radioactive waste management and disposal to discuss DSWG and P61WG projects related to the management and disposition of disused sources;
- facilitate, moderate, and participate in the winter 2017 DSWG meeting that was held in San Diego, California from February 6-7, 2017 including logistics; agenda development and communications with working group members, staff and organizational representatives for CRCPD, OAS and HPS to get their perspectives and input; preparation and assembly of meeting packets; review of documents and issues; prepare and distribute follow-up activities and assignments;
- write, edit and distribute draft DSWG comments in response to the *Federal Register* notice that was issued on January 9, 2017 in which the NRC announces that the agency is seeking input from licensees, Agreement States and the public to inform the

- staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability;
- review PowerPoint presentations re the LLW Forum's panel at the 2017 Waste Management Symposium including the GAO re GAO-16-330 titled, "Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain" and the NRC re sealed source protection, accountability, financial assurance and the Part 61 rulemaking initiative;
 - update new draft of disposal cost document that will serve as a companion piece to the educational materials for current and prospective licensees;
 - edit, incorporate comments, finalize and formally submit the DSWG comments in response to the *Federal Register* notice that was issued on January 9, 2017 in which the NRC announces that the agency is seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability;
 - facilitate, moderate, and participate in the LLW Forum's panel at the 2017 Waste Management Symposium including the GAO re GAO-16-330 titled, "Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain" and the NRC re sealed source protection, accountability, financial assurance and the Part 61 rulemaking initiative;
 - publish, post to website and notify stakeholders via list-serve re document on compact import and export permit requirements that was requested by brokers/processors, disposal facility operators and other stakeholders;
 - attend and participate in sessions on disused source management and the Part 61 rulemaking initiative at the NRC's Regulatory Information Conference (RIC) in Bethesda, Maryland; and,
 - work with Los Alamos National Laboratory (LANL) officials to renew and process Guest Scientist Agreements for travel on behalf of DSWG/P61WG.

Please see the invoices for additional and more detailed information.

Key Milestones and Dates

During the period from April 1, 2016 through March 31, 2017, the following key milestones were achieved by the DSWG and P61WG in conjunction with the LLW Forum's contract for services with NNSA:

- throughout the period from April 1, 2017 through March 31, 2017, the DSWG and P61WG regularly updated and added postings to the dedicated web sites focusing on proper management and disposition of disused sources and 10 CFR Part 61 rulemaking initiative;
- from April through December 2017, the DSWG drafted, reviewed and incorporated comments, and finalized layout and artwork on educational materials for current and prospective licensees of sealed sources—with the final documents being published and posted to the DSWG website in late December 2016;

- held spring 2016 DSWG meeting in Park City, Utah on April 14-15, 2016 in conjunction with the spring 2016 LLW Forum meeting;
- participated in a workshop sponsored by the Southwestern Low-Level Radioactive Waste Compact Commission on the management and disposition of disused sources in Berkeley, California from April 26-28, 2016;
- in spring of 2017, the DSWG reviewed, analyzed and distributed to DSWG members/staff and other interested stakeholders the NRC document titled, *Financial Planning for Radioactive Byproduct Material—Financial Scoping Study*;
- following the spring 2017 LLW Forum and DSWG meetings, the DSWG reviewed and considered broker and processor proposal for a centralized collection facility for disused sources and receipt of sources on bill of lading;
- attended a portion of the CRCPD's annual meeting that was held in Lexington, Kentucky in May 2016, which included various sessions on disused sources and during which the E-34 Committee reviewed and developed comments on the first draft of educational materials for current and prospective licensees;
- beginning with the summer 2016 DSWG meeting in Chicago, Illinois on July 7-8, 2016, the DSWG successfully formed a consortium with representatives of OAS, CRCPD and HPS to better coordinate our efforts moving forward;
- upon release in the summer of 2016, the DSWG reviewed, distributed and organized industry meeting sessions regarding a GAO report re disused source management and disposition;
- attended and participated in the HPS annual meeting in Spokane, Washington from July 17-21, 2016—including participation in special session on sealed source management, presentation on DSWG activities and projects, meeting with NNSA official, meetings with stakeholders, and meeting with HPS Board members;
- participated in the OAS annual meeting on August 21-25, 2016;
- wrote, edited and distributed information re release of responses to additional questions on Branch Technical Position on Concentration Averaging and Encapsulation;
- wrote, edited, distributed and posted to Resources Page of DSWG web site information re theft and recovery of nuclear gauges;
- attended, participated and networked on behalf of the DSWG and P61WG at the Exchange Monitor Publication's Rad Waste Summit annual meeting on September 6-9, 2016;
- attended, participated and networked on behalf of the DSWG and P61WG at the NAS' low-level waste workshop including breakout session on sealed source management in October 2016;
- held the fall 2016 DSWG meeting in Saratoga Springs, New York from November 8-9, 2016;
- in late calendar year 2016, wrote, edited and distributed information re release of SECY-16-0106 and related documents which seeks Commission approval to publish a final rule in the *Federal Register* that would amend 10 CFR Parts 20 and 61 re licensing requirements for land disposal of radioactive waste;
- from January through March 2017, wrote, edited, distributed information and provided significant written feedback in response to an NRC Staff Requirements

Memorandum (SRM) re reevaluation of tracking and security issues related to Category 3 sources;

- in January 2017, collected information from five individual states re source calculation and methodology re number of sealed sources;
- attended and participated in the mid-year meeting the HPS in Bethesda, Maryland from January 22-25, 2017;
- attended and participated in the EnergySolutions' conference on low-level radioactive waste management and disposal issues in Salt Lake City, Utah from January 25-27, 2017;
- wrote, edited, incorporated comments and published in winter 2017 a document identifying import and export authorities in response to inquiries from source manufacturers, brokers, processors;
- held the winter meeting for DSWG members, staff and organizational liaisons in San Diego, California on February 6-7, 2017;
- in March 2017, wrote, edit and distribute information re NRC proposal to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources;
- organized a panel including topics related to the proper management and disposition of disused sources and the Part 61 rulemaking initiative for the Waste Management symposium—and participated in the subsequent NRC public workshop—that were held in Phoenix, Arizona from March 5-10, 2017;
- attended and participated in the NRC's RIC in Bethesda, Maryland from March 15-16, 2017;
- held the spring 2017 meeting for DSWG members, staff and organizational liaisons was held in Denver, Colorado on April 25-26, 2017; and,
- from February 2017 through present, worked with stakeholders to develop disposal cost language for a companion document to the educational materials for current and prospective licensees of sealed sources and devices—which companion document is expected to be released in summer 2017.

Findings

During the period from April 1, 2016 through March 31, 2017, the DSWG and P61WG reached the following findings in conjunction with the LLW Forum's contract for services with NNSA:

- The NRC has focused its efforts mainly on Category 1 and Category 2 sealed sources. However, the DSWG continues to receive input that some Category 3 sealed sources have a high enough activity level or can be aggregated and therefore require greater attention. Accordingly, the DSWG encourages the U.S. Government to reach an agreement across agencies on this issue.
- There does not currently exist a good source of information regarding technologies and the actual costs of reusing, recycling, or disposing of sources when they are no longer needed. Research on alternative technologies to replace sealed sources should be a priority of the federal government and the private sector.

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- Financial assurance requirements are not currently adequate to cover the full cost of transportation and disposal. The DSWG is working with our organizational liaisons on a letter to the NRC to support an agency staff recommendation—as contained in SECY-16-0115 (ADAMS Accession No. ML16200A223) dated October 7, 2016—to proceed with rulemaking to expand the financial assurance requirements in 10 CFR 30.35 to include all byproduct material Category 1 and 2 radioactive sealed sources (RSSs) that are tracked in the National Source Tracking System (NSTS).
- Inventories of disused sources at sealed source manufacturers, suppliers, and waste brokers should be reduced.
- Comprehensive regulations should be considered to limit the storage of disused sources to two years and authorize regulators to require the disposition of sources in storage for more than two years unless there is a demonstrated future use.
- NRC should reconsider its decision to allow foreign sources that may not have a commercial disposal pathway to be imported.
- Federal and private research funding organizations should require grantees to budget for the disposal of sealed sources when they no longer are needed by the grantee.
- A sealed source “exchange” program should be established to facilitate the transfer of sources between those no longer needing sources and those looking to acquire sources.
- Additional steps should be undertaken to encourage the private sector to increase the supply of commercially available Type B shipping containers.
- Several internationally-certified Type B shipping containers should be identified that would have widespread applicability to disused sources in the U.S. and applications submitted to have these packages certified by NRC for domestic use.
- The NRC should continue to expeditiously review applications for Type B shipping containers and should aggressively notify licensees and the Agreement States well in advance of the expiration of shipping container certifications.
- An outreach program should be established, according to the DSWG, to assist licensees in identifying resources to assist with packaging, transport, and disposal of disused sources.
- The long-term solution to the disused source problem is to hold the licensees who have purchased and obtained the economic benefit from the sources responsible for the proper reuse, recycling, or disposal of the sources when they become disused.

Problems and Issues Encountered

During the period from April 1, 2016 through March 31, 2017, the DSWG identified the following problems and issues that continue to hinder the proper management and disposition of disused sources:

- the life-cycle costs of managing and ultimately disposing of sealed sources are not internalized;
- the practices of the NRC and the NNSA do not fully reflect a consistent view of what sources pose a threat to national security;
- the regulatory system is not adequate for the post-9/11 threat environment;

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- there are no financial incentives for disused sources to be reused, recycled, or disposed in a timely manner;
- the opportunities for recycling and reusing sealed sources are being underutilized; and,
- Type B shipping containers needed to transport certain high activity sealed sources are in short supply and are very expensive.

Recommendations

During the period from April 1, 2016 through March 31, 2017, the DSWG and P61WG pursued the following recommendations in conjunction with the LLW Forum's contract for services with NNSA:

- To encourage timely disposal, the NRC should develop robust financial assurance requirements for all licensees (Categories 1 through 3). The financial assurance requirements should be adequate to cover the entire cost of packaging, transport and disposal.
- Create a program, possibly through the CRCPD, to educate proposed buyers of sealed sources about the life-cycle costs of sealed sources, including information about the cost of storage, transportation and disposal.
- Now that disposal access is available for most sources in the U.S., the NRC and the Agreement States should expand and make enforceable the General License (GL) storage limit regulation to address all Category 1 through 3 sources in storage for more than two years unless the licensee can make a clear demonstration of future use. There should be clear regulatory authority to direct the disposition (reuse, recycle or disposal) of Category 1 through 3 sources after they have been stored for two years.
- The NRC should amend its regulations to require a Specific License (SL) for all Category 3 sources.
- The NRC and Agreement States should incorporate procedures in their inspection programs to review the status of Category 1 through 3 sources in storage—including consideration of the length of, reason for, and location of storage.
- NNSA should identify several foreign package designs for Type B shipping containers that would have widespread applicability to a number of disused sources in the United States. NNSA should submit applications to have these packages certified by the NRC for domestic use.
- A secure "source exchange" program should be created and administered via an intermediary—possibly by the EPA due to their experience in exchange programs for other resources such as hazardous materials—to work with licensees, source and device manufacturers, and recyclers to provide them with information about sources still having a useful life, with the goal of increasing beneficial reuse and recycle opportunities. The program could identify sources meeting the specific application requirements being sought for reuse or recycling, identify sources containing radioisotopes that can be removed and used to manufacture new sources, and assist with paperwork required for source transfer.

- A detailed study should be conducted—possibly by the U.S. Environmental Protection Agency (EPA) due to their long history of working with reuse and recycling of resources—to identify measures to promote opportunities for the reuse and recycling of sources.
- The NRC and Agreement States should enhance the NSTS to include as a required field the date last used of all sealed sources. These data should be validated during routine inspections.
- To prevent the accumulation of an excessive number of sources by manufacturers and suppliers, the NRC and Agreement States should require manufacturers and suppliers to dispose of those sources that have no recycle or reuse value on an annual basis.
- Federal research agencies should encourage grantors to give preference to applicants proposing to use sealed sources from their existing inventories or alternative technologies; and require applicants to budget for the full life-cycle cost of use and disposition in grant applications.

Memos and Email Transmissions

The following e-bulletins were sent out from April 1, 2016 through March 31, 2017 concerning activities of the LLW Forum’s DSWG and P61WG:

- An April 1, 2016 memo to the LLW Forum Officers notifying them that NNSA had approved payment for the expenses related to the DSWG meeting that was held in Orange County, California in February 2016 and transmitting the invoice and supporting documentation for review and payment authorization.
- An April 10, 2016 memo to DSWG members and staff reminding them that, following the conclusion of the spring 2016 LLW Forum meeting, the working group will meet in open session from 2:00 to 5:00 p.m. on Thursday afternoon and then in closed session from 9:00 a.m. to 12:00 p.m. on Friday morning and transmitting the agenda and documents therefore.
- An April 10, 2016 memo to invited guests for the upcoming DSWG meeting reminding them that, following the conclusion of the spring 2016 LLW Forum meeting, the working group will meet in open session from 2:00 to 5:00 p.m. on Thursday afternoon and transmitting the agenda and documents therefore.
- An April 20, 2016 memo to DSWG members and staff reporting confirmation of the availability of all invited guests and the vast majority of working group members and staff for the proposed summer meeting with OAS, HPS and CRCPD representatives to discuss how we can better coordinate our efforts moving forward and notifying them to mark their calendars for the planned July 7-8 meeting in Chicago, Illinois.
- An April 20, 2016 memo to invited guests for the summer 2016 DSWG meeting from OAS, HPS and CRCPD to remind them to mark their calendars for the planned July 7-8 meeting in Chicago, Illinois.
- An April 26, 2016 memo to DSWG members and staff, NNSA officials and consultants, and other interested stakeholders transmitting an NRC document that was released earlier that day titled, “Financial Planning for Radioactive Byproduct Material—Scoping Report.”

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- An April 27, 2016 memo to DSWG members and staff transmitting, for their review and comment, the first draft of educational materials for current and potential licensees of sealed sources and devices as developed by DSWG staff.
- An April 28, 2016 memo to DSWG members providing a link for making reservations in the discount hotel block for the summer working group meeting to be held in Chicago, Illinois on July 7-8, 2016.
- An April 28, 2016 memo to invited guests from OAS, HPS and CRCPD providing a link for making reservations in the discount hotel block for the summer meeting with DSWG members and staff to discuss ways in which we can better coordinate our efforts in Chicago, Illinois on July 7, 2016.
- An April 30, 2016 memo to representatives from OAS, HPS and CRCPD transmitting, for their review and comment, the first draft of educational materials for current and potential licensees of sealed sources and devices as developed by DSWG staff.
- A May 1, 2016 memo to DSWG members and staff—as well as to NNSA officials, consultants and other stakeholders—transmitting, for their information and convenience, SECY-16-0046 titled *Results of the Byproduct Material Financial Scoping Study*.
- A May 1, 2016 memo to NNSA officials/consultants and other interested stakeholders transmitting, for their review and comment, the first draft of educational materials for current and potential licensees of sealed sources and devices.
- A May 2, 2016 memo to LLW Forum Officers notifying them that the NNSA had approved payment for the expenses related to the monthly report and invoice for services of the DSWG and P61WG for the month of March 2016 and transmitting the invoice and supporting documentation for review and payment authorization.
- A May 3, 2016 memo to DSWG members and staff reminding them that comments are due no later than the close of business on the coming Friday on the first draft of educational materials for current and potential licensees of sealed sources & devices.
- A May 4, 2016 memo to DSWG members and staff, as well as to NNSA officials and consultants, notifying them of the issuance by NRC of Information Notice (IN) 2016-04, ANSI N14.5-2014 Revision and Leakage Rate Testing Considerations to inform addressess of the 2014 revision to the American National Standards Institute (ANSI) document and specific leakage rate testing considerations.
- A May 6, 2016 memo to DSWG members and staff, as well as to NNSA officials and consultants, reminding them that comments are due no later than the close of business on the first draft of educational materials for current and potential licensees of sealed sources and devices.
- A May 6, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of April 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A May 16, 2016 memo to DSWG members and staff transmitting, for their information and convenience, the second draft of educational materials for current and potential licensees of sealed sources and devices.
- A May 26, 2016 memo to Officers of the LLW Forum notifying them that NNSA had approved payment for the expenses related to the monthly report and invoice for

services of the DSWG and P61WG for the month of April 2016 and transmitting the invoice and supporting documentation for review and payment authorization.

- A June 1, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of May 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A June 12, 2016 memo to persons interested in the management and disposition of low-level radioactive waste announcing the posting of new materials to the Resources Page of the DSWG web site including a World Institute of Nuclear Security (WINS) special report titled, *Considerations for the Adoption of Alternative Technologies to Replace Radioactive Sources*, dated May 2016.
- A June 13, 2016 memo to DSWG members and staff transmitting for review and comment the following two documents: (1) the third draft of educational materials for current and prospective licensees of sealed sources and devices that incorporates comments from the CRCPD E-34 Committee and (2) a mark-up of the second draft, for comparison purposes only, to assist DSWG members and staff in identifying specific suggested edits from the E-34 Committee.
- A June 14, 2016 memo to DSWG members and staff transmitting a draft agenda (including discussion leader assignments) for the upcoming DSWG meeting with representatives of the OAS, HPS and CRCPD that will be held in Chicago, Illinois on July 7-8, 2016.
- A June 20, 2016 memo reminding all DSWG members to review their discussion leader assignments and send a confirmation communication no later than the close of business on Wednesday—June 22, 2016.
- A June 20, 2016 memo to Officers of the LLW Forum notifying them that the NNSA had approved payment for the expenses related to the monthly report and invoice for services of the DSWG and P61WG for the month of May 2016 and transmitting the invoice and supporting documentation for review and payment authorization.
- A June 20, 2016 memo to DSWG members and staff reminding them that comments on the third draft of educational materials for current and prospective licensees of sealed sources and devices that incorporates comments from the CRCPD E-34 Committee are due no later than the close of business on Wednesday—June 22, 2016.
- A June 28, 2016 memo to DSWG members and staff transmitting an updated draft agenda (including discussion leader assignments) for the upcoming DSWG meeting with representatives of the OAS, CRCPD and HPS that will be held in Chicago, Illinois on July 7-8, 2016 and setting a deadline to submit materials or documents for the meeting packets for assigned topics of July 1, 2016.
- A June 28, 2016 memo to invited guests transmitting an updated draft agenda for the upcoming DSWG meeting with representatives of the OAS, CRCPD and HPS that will be held in Chicago, Illinois on July 7-8, 2016.
- A June 30, 2016 memo to DSWG members and staff reminding them that materials or documents for the meeting packets are due by the close of business on July 1, 2016 for the upcoming DSWG meeting with representatives of the OAS, CRCPD and HPS that will be held in Chicago, Illinois on July 7-8, 2016.
- A July 3, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of

June 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.

- A July 6, 2016 memo to DSWG members and staff transmitting the final agenda (including discussion leader assignments) and logistical information for the upcoming DSWG meeting with representatives of the OAS, CRCPD and HPS that would be held in Chicago, Illinois on July 7-8, 2016.
- A July 6, 2016 memo to invited organizational guests from OAS, CRCPD and HPS transmitting the final agenda (including discussion leader assignments) and logistical information for the upcoming DSWG meeting that would be held in Chicago, Illinois on July 7-8, 2016.
- A July 11, 2016 memo to DSWG members, staff and organizational guests transmitting paperwork and instructions for submitting expense reimbursement requests to the Los Alamos National Laboratory (LANL) for the DSWG meeting that was recently held in Chicago, Illinois on July 7-8, 2016.
- A July 13, 2016 memo to DSWG members and staff notifying them that we will be holding a working group meeting in conjunction with the fall 2016 LLW Forum meeting that will be held at the Embassy Suites Hotel in Saratoga Springs, New York on November 7-8, 2016 and reminding them to make their hotel reservations early as only a limited number of rooms have been set aside under our discount hotel rate block for Tuesday evening—November 8, 2016.
- A July 18, 2016 memo to DSWG members and staff, NNSA officials and consultants, and other stakeholders interested in the management and distribution of disused sources announcing that, on July 15, 2016, the GAO released GAO-16-330 titled, *Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain*, and transmitting the document for their review and information.
- A July 19, 2016 memo to persons interested in the management and disposition of low-level radioactive waste announcing the posting of new materials to the Resources Page of the DSWG web site including a recently released GAO report titled, *Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain*, and an associated LLW Forum News Flash thereabout.
- A July 26, 2016 memo to DSWG members and staff, NNSA officials and consultants, and other stakeholders interested in the management and disposition of disused sources announcing the theft earlier that day from a Connecticut company of a portable moisture-density gauge containing sealed sources of radioactive material.
- A July 27, 2016 memo to stakeholders interested in the management and disposition of low-level radioactive waste announcing the posting of new material to the Resources Page of the DSWG web site including (1) a link to a new webpage on the public NRC website regarding the recently-released GAO audit and investigation on the security of sealed sources; and, (2) information about the theft on July 26 from a Connecticut company of a portable moisture-density gauge containing sealed sources of radioactive material.
- A July 28, 2016 memo to Officers of the LLW Forum notifying them that the NNSA had approved payment for the expenses related to the monthly report and invoice for services of the DSWG and P61WG for the month of June 2016 and transmitting the invoice and supporting documentation for review and payment authorization.

- An August 1, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of July 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- An August 2, 2016 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of June 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- An August 4, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders notifying them that, earlier the same day, a news article on the recently released Government Accountability Office report GAO-16-330, *Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain*, was published in both the Washington Post and the Texas Tribune.
- An August 5, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders notifying them of the posting of new material to the Resources Page of the DSWG web site regarding a news article on the recently released GAO-16-330 report, *Nuclear Security: NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain*, that was published in both the Washington Post and the Texas Tribune.
- An August 7, 2016 memo to DSWG members and staff providing an update on activities and follow-up items for the working group since the last meeting in Chicago, Illinois in July 2016.
- An August 14, 2016 memo to DSWG members and NNSA officials and consultants transmitting to them for review and comment a poster on the educational materials to current and prospective licensees of radioactive materials and devices that would then be presented at the OAS annual meeting in Denver, Colorado from July 21-25, 2016.
- An August 14, 2016 memo to DSWG members and NNSA officials and consultants transmitting to them for review and comment the layout and artwork on the educational brochures to current and prospective licensees of radioactive materials and devices.
- An August 15, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders transmitting, for their information and convenience, a memo from NRC Commissioner Baran proposing that the NRC staff revisit the question of whether and how to track Category 3 sources.
- An August 19, 2016 memo to LLW Forum Officers notifying them that the NNSA had approved payment for the expenses related to the monthly report and invoice for services of the DSWG and P61WG for the month of July 2016 and transmitting the invoice and supporting documentation for review and payment authorization.
- An August 20, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders notifying them of the posting of new material to the Resources Page of the DSWG web site including a memo from NRC Commissioner Baran proposing that agency staff revisit the question of whether and how to track Category 3 sources.
- A September 2, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the

month of August 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.

- A September 13, 2016 memo to LLW Forum members and supporters notifying them that the July/August 2016 issue of the *LLW Notes* is now available on the members-only portions of the organization's web site.
- A September 14, 2016 memo to anticipated and confirmed speakers for the fall 2016 LLW Forum meeting transmitting the draft agenda for their review and comment prior to release and publication.
- A September 15, 2016 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of August 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- A September 16, 2016 memo to anticipated and confirmed speakers for the fall 2016 LLW Forum meeting transmitting the draft agenda for their review and comment prior to release and publication.
- A September 18, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders notifying them of the posting of new material to the Resources Page of the DSWG web site regarding notification by a West Virginia company to the NRC that a portable moisture-density gauge containing sealed sources of radioactive material has been stolen.
- A September 19, 2016 memo to anticipated and confirmed speakers for the fall 2016 LLW Forum meeting that had not yet provided comments on the draft agenda reminding them to do so by the upcoming deadline.
- A September 20, 2016 memo to anticipated and confirmed speakers for the fall 2016 LLW Forum meeting that had not yet provided comments on the draft agenda reminding them to do so by the upcoming deadline.
- An October 4, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of September 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- An October 7, 2016 memo to P61WG members notifying them of the release of SECY-16-0106 requesting NRC Commission approval to publish the proposed final rule re low-level radioactive waste disposal (10 CFR Part 61).
- An October 11, 2016 memo to stakeholders interested in the management and disposition of low-level radioactive waste notifying them of the release of SECY-16-0106 requesting NRC Commission approval to publish the proposed final rule re low-level radioactive waste disposal (10 CFR Part 61).
- An October 12, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders transmitting a press release from Senator Charles Schumer titled, "Explosion that Shook NYC Highlights Real Risk of a 'Dirty Bomb' in NYC' Shocking Fed Report Shows How Almost Anyone Can Use Loophole to Purchase Radioactive Material Required to Carry Out Attack in Major City; Senator Urges Nuke Agency to Overhaul Check System Putting NY'ers at Risk."

- An October 20, 2016 memo to DSWG members and staff, NNSA officials and consultants and other interested stakeholders transmitting an NRC SRM regarding a proposed agency staff re-evaluation of Category 3 source accountability.
- An October 20, 2016 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of September 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- An October 23, 2016 memo to P61WG members and staff, NNSA consultants and officers and other interested stakeholders notifying them of the release of the NRC's draft final Part 61 guidance document and a redline/strikeout version of the proposed final rule in response to a request from the ACRS' Subcommittee on Radiation Protection and Nuclear Materials.
- An October 25, 2016 memo to stakeholders interested in the management and disposition of low-level radioactive waste transmitting an NRC SRM regarding a proposed agency staff re-evaluation of Category 3 source accountability.
- An October 27, 2016 memo to stakeholders interested in the management and disposition of low-level radioactive waste notifying them of the release of the NRC's draft final Part 61 guidance document and a redline/strikeout version of the proposed final rule in response to a request from the ACRS' Subcommittee on Radiation Protection and Nuclear Materials.
- An October 28, 2016 memo to DSWG members and staff, NNSA officials and consultants and organizational liaisons to the working group transmitting revised educational materials to current and prospective licensees that incorporate stakeholder comments on the earlier drafts.
- A November 1, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of October 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A November 2, 2016 memo to DSWG members and staff, and designated organizational liaisons to the DSWG, transmitting the draft agenda for the upcoming working group meeting that would be held in Saratoga Springs, New York on November 8-9, 2016.
- A November 3, 2016 memo to DSWG members and staff, and designated organizational liaisons to the DSWG, transmitting additional documents for the upcoming working group meeting that would be held in Saratoga Springs, New York on November 8-9, 2016.
- A November 13, 2016 memo to DSWG members and staff, and organizational liaisons to the DSWG, transmitting information and documentation for the filing of travel expense reimbursement for the recent working group meeting in Saratoga Springs, New York on November 8-9, 2016.
- A November 23, 2016 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of October 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.

- A November 23, 2016 memo to DSWG members and staff, and to DSWG organizational liaisons, transmitting a list of follow-up items and individual assignments from the fall 2016 DSWG meeting in Saratoga Springs, New York.
- A November 25, 2016 memo to DSWG members and staff, and to DSWG organizational liaisons, transmitting a list of active and inactive manufacturers and distributors of sealed sources.
- A November 29, 2016 memo to DSWG members and staff, and to DSWG organizational liaisons, transmitting draft new language for educational brochures regarding waste disposal costs and costs for Type B containers.
- A November 30, 2016 memo to stakeholders interested in the management and disposition of disused sources notifying them of the posting of new material to the Resources Page of the DSWG website regarding the release of SECY-16-0115 (dated October 7, 2016), in which NRC staff seek Commission approval to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources.
- A December 1, 2016 memo to DSWG members, staff and organizational representatives transmitting a listing of contact information for working group members, staff and organizational liaisons, as well as copies of all of the documents from the fall 2016 working group meeting that was held in Saratoga Springs, New York.
- A December 1, 2016 memo to stakeholders interested in the management and disposition of low-level radioactive waste advising them of the posting of new material to the Resources Page of the LLW Forum/DSWG website regarding the recent release by the NRC of SECY-16-0115, in which agency staff seek Commission approval to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources.
- A December 4, 2016 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of October 2016 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A December 7, 2016 memo to DSWG members, staff and organizational liaisons requesting availability and scheduling for the proposed winter 2017 working group meeting.
- A December 13, 2016 memo to speakers for Waste Management Panel 19 as organized by the LLW Forum titled, "Hot Topics and Emerging Issues in US Commercial LLW Management," transmitting important logistical details including notification of the upcoming early bird registration deadline on December 31 and opportunity to review the attached panel description for publication in the symposia program.
- A December 19, 2016 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of November 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- A December 27, 2016 memo to DSWG members, staff and organizational liaisons notifying them that the winter 2017 working group meeting has been tentatively set

for February 6-7, 2017 in California and asking them to mark their calendars to save the dates.

- A December 29, 2016 memo to DSWG members, staff and organizational liaisons—as well as NNSA officials and consultants—transmitting the second draft of the Compact Export/Import Permit Requirements Report.
- A December 30, 2016 memo to DSWG members, staff and organizational liaisons—as well as NNSA officials and consultants—transmitting the final versions of the educational materials for current and prospective licensees of radioactive materials and devices.
- A January 4, 2017 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of December 2016 pursuant to the LLW Forum’s contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A January 5, 2017 memo to DSWG members, staff and organizational representatives transmitting logistical information for the winter 2017 DSWG meeting that will be held in San Diego, California from February 6-7, 2017.
- A January 6, 2017 memo to DSWG members, staff and organizational representatives transmitting documents as follow-up to the fall 2016 meeting, and in preparation for the winter 2017 meeting, including (1) comments from an HPS board member regarding the outstanding working group recommendations and priorities list and (2) a federal Memorandum of Understanding (MOU) regarding cooperation on radioactive materials transportation security, along with a cover letter from the NRC dated December 22, 2016.
- A January 8, 2017 memo to stakeholders interested in the management and disposition of low-level radioactive waste notifying them of the posting of new material to the Resources Page of the DSWG website—specifically, educational brochures for current and prospective licensees of radioactive sealed sources and devices.
- A January 9, 2017 memo to DSWG members, staff and organizational representatives providing hotel group block information for the winter 2017 working group meeting that will be held in San Diego, California on February 6-7, 2017.
- A January 12, 2017 memo to DSWG members, staff and organizational representatives that had as of yet not made hotel reservations for the winter 2017 working group meeting reminding them of the pending deadline.
- A January 17, 2017 memo to DSWG members, staff and organizational representatives that had as of yet not made hotel reservations for the winter 2017 working group meeting notifying them that the deadline to make a room reservation had been extended through the end of the week.
- A January 17, 2017 memo to DSWG members, staff and organizational representatives—as well as NNSA officials and consultants—transmitting a *Federal Register* notice (dated January 9, 2017) announcing that the NRC is seeking input from licensees, Agreement States and the public to inform the staff’s assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.
- A January 20, 2017 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services

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of the DSWG/P61WG for the month of December 2016 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.

- A January 23, 2017 memo to compact and state members of the LLW Forum transmitting, for their review and comment, a draft document regarding Compact Export and Import Permit Requirements that was developed by the DSWG.
- A January 24, 2017 memo to stakeholders interested in the management and disposition of low-level radioactive waste notifying them of the posting of new material to the Resources Page of the DSWG website—specifically, (1) a *Federal Register* notice (dated January 9, 2017) announcing that the NRC is seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability and (2) LLW Forum News Flash thereon.
- A January 25, 2017 memo to DSWG members, staff and organizational representatives transmitting documents in preparation for the winter 2017 meeting including (1) the draft agenda; (2) the first draft of the *Disposition Costs for Certain Radioactive Sealed Sources and Devices* that is intended to accompany the educational brochures that were finalized and posted to the DSWG website in December 2016; (3) the third draft of the summary of *Compact Export and Import Permit Requirements* on which all DSWG comments have now been incorporated and which was recently distributed for review and comment by compact and state officials; and, (4) overview of *Category 3 Specific and General License* information that was provided by five DSWG members as a follow-up to the discussion at the Saratoga Springs working group meeting regarding how to develop a current and accurate calculation of the number of sealed sources currently in the United States.
- A February 1, 2017 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of January 2017 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A February 3, 2017 memo to DSWG members, staff and organizational representatives transmitting final logistical information for the winter 2017 DSWG meeting that would be held in San Diego, California from February 6-7, 2017.
- A February 10, 2017 memo to DSWG members, staff and organizational liaisons transmitting the new travel expense reimbursement form, process and Los Alamos contact for submittal of travel expense reimbursement requests related to the winter 2017 DSWG meeting that was held in San Diego, California on February 6-7, 2017.
- A February 13, 2017 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of January 2017 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- A February 20, 2017 memo to DSWG members, staff and organizational liaisons transmitting a detailed list of follow-up items, individual assignments and deadlines from the winter 2017 DSWG meeting that was held in San Diego, California on February 6-7, 2017.
- A February 22, 2017 memo to speakers for the LLW-Forum organized Panel 19 titled, "Hot Topics and Emerging Issues in U.S. Commercial LLRW Management,"

for the upcoming Waste Management symposium transmitting logistical information and PowerPoint submittal instructions and deadlines.

- A February 26, 2017 memo to DSWG members transmitting draft comments for review and feedback in response to a *Federal Register* notice (dated January 9, 2017) announcing that the NRC is seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.
- A March 1, 2017 memo to DSWG members, staffs and organizational liaisons and to NNSA officials and consultants transmitting, for review and comment, draft comments (including one Appendix item) in response to the *Federal Register* notice from the NRC seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.
- A March 2, 2017 memo to NNSA officials transmitting the invoice, monthly report and supporting documentation for the activities that were carried out during the month of February 2017 pursuant to the LLW Forum's contract DE-NA-0003197 with NNSA for services of the DSWG and P61WG.
- A March 2, 2017 memo to DSWG members, staffs and organizational liaisons and to NNSA officials and consultants transmitting comments from the State of Colorado in response to the NRC's *Federal Register* notice seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.
- A March 5, 2017 memo to speakers for the spring 2017 LLW Forum meeting transmitting, for their review and comment, the draft agenda for the upcoming meeting in Denver, Colorado on April 24-25, 2017.
- A March 9, 2017 memo to DSWG members, staffs and organizational liaisons and to NNSA officials and consultants transmitting the final DSWG comments and associated appendix in response to the NRC's *Federal Register* notice seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.
- A March 10, 2017 memo to speakers for the spring 2017 LLW Forum meeting reminding them of the upcoming deadline to provide comment and input on the draft agenda for the upcoming meeting in Denver, Colorado on April 24-25, 2017.
- A March 21, 2017 memo to Officers of the LLW Forum notifying them that NNSA/DOE has approved payment for the monthly report and invoices for services of the DSWG/P61WG for the month of February 2017 and seeking a second Officer authorization for payment per LLW Forum accounting guidelines.
- A March 22, 2017 memo to speakers for the spring 2017 LLW Forum meeting transmitting logistical issues and deadlines regarding the submittal of PowerPoint presentations and other documents for the upcoming meeting in Denver, Colorado on April 24-25, 2017.
- A March 27, 2017 memo to DSWG members, staffs and organizational liaisons and to NNSA officials and consultants transmitting, for review and comment, the revised draft *Disposition Costs for Certain Radioactive Sealed Sources and Devices* that is

intended to accompany the educational brochures that were finalized and posted to the DSWG website in December 2016.

- A March 29, 2017 memo to stakeholders interested in the management and disposition of disused sources announcing the release of a report re Compact Import-Export Requirements.

Meetings

DSWG and P61WG members and staff participated in the following meetings on behalf of the working groups from April 1, 2016 through March 31, 2017:

- DSWG members, staff and other interested stakeholders met in Park City, Utah on April 14-15, 2016 in conjunction with the spring 2016 LLW Forum meeting. The first day was dedicated to discussions with brokers and processors regarding their proposals and an associated white paper to improve the management and disposition of disused sources. On the second day, DSWG members and staff outlined the development of educational materials for review and consideration by the E-34 Committee during the CRCPD's upcoming annual meeting in Lexington, Kentucky in May 2016; prepared for the upcoming summer meeting with representatives of OAS, CRCPD and HPS to better coordinate our efforts moving forward; and, analyzed the discussions from the prior day regarding the broker and processor proposals.
- The DSWG/P61WG Project Director traveled to Berkeley, California from April 26-28, 2016 to attend and participate in a workshop sponsored by the Southwestern Low-Level Radioactive Waste Compact Commission on the management and disposition of disused sources.
- In May 2016, the DSWG Project Director attended a portion of the CRCPD's annual meeting that was held in Lexington, Kentucky in May 2016, which included various sessions on disused sources and during which the E-34 Committee reviewed and developed comments on the first draft of educational materials for current and prospective licensees.
- The summer 2016 DSWG meeting was held in Chicago, Illinois on July 7-8, 2016 with representatives of OAS, CRCPD and HPS to better coordinate our efforts moving forward.
- The DSWG Project Director traveled to Denver, Colorado to attend and participate in the OAS annual meeting on August 21-25, 2016.
- The DSWG Project Director traveled to Summerlin, Nevada to attend, participate and network on behalf of the DSWG and P61WG at the Exchange Monitor Publication's Rad Waste Summit annual meeting on September 6-9, 2016.
- In October 2016, the DSWG Project Director and Communications Consultant traveled to Washington, DC to attend, participate and network on behalf of the DSWG and P61WG at the NAS' low-level waste workshop including breakout session on sealed source management.
- DSWG members, staff and organizational liaisons traveled to Saratoga Springs, New York to attend and participate in the fall 2016 working group meeting from November 8-9, 2016. This was the first meeting with newly appointed organizational

liaisons from OAS, CRCPD and HPS. During the meeting, attendees reviewed previous work including the March 2014 DSWG report, survey of state radiation control program directors, CRCPD's Part S Working Group on developing suggested state regulations concerning financial assurance for disused sources, input on NRC's byproduct material financial scoping study, passage of two-year storage limit by State of Texas; discussed ongoing projects including development of educational materials for current and prospective licensees, action items from summer 2016 DSWG meeting (draft chart of compact import/export authorities and source calculation and methodology re number of sealed sources), and implementation of the updated list re DSWG recommendations and priorities; and, planned additional outreach to and coordination with other stakeholders.

- From January 22-25, 2017, the DSWG/P61WG Project Director attended and participated in the mid-year meeting the HPS in Bethesda, Maryland.
- From January 25-27, 2017, the DSWG/P61WG Project Director attended and participated in the *EnergySolutions*' conference on low-level radioactive waste management and disposal issues in Salt Lake City, Utah.
- The winter meeting for DSWG members, staff and organizational liaisons was held in San Diego, California on February 6-7, 2017. In preparation for that meeting, we reached out to working group members, staff and organizational representatives re scheduling availability; negotiated with potential facilities; submitting an ODC authorization estimate and request to NNSA; communicated with boards of OAS, CRCPD and HPS to get their perspectives and input on list of outstanding action items and priorities; continued work on ongoing projects including the development of educational materials for current and prospective licensees and a draft chart of compact import/export authorities; held discussions re source calculation and methodology re number of sealed sources; coordinated implementation of the updated list re DSWG recommendations and priorities; and, planned additional outreach to and coordination with other stakeholders.
- Following the winter 2017 DSWG meeting, we worked to prepare draft DSWG comments in response to the NRC *Federal Register* notice seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability; develop a list of follow-up activities and made individual assignments; updated a disposal cost document that will serve as a companion piece to the educational materials for current and prospective licensees of sealed radioactive sources and devices; collected information from four individual states re source calculation and methodology re number of sealed sources; and, prepared draft petitions to NRC for proposed rulemaking on financial assurance for consideration of joint submittal by DSWG, OAS and CRCPD.
- From March 5-10, 2017, the DSWG/P61WG Project Director attended and participated in the Waste Management symposium and subsequent NRC public workshop in Phoenix, Arizona.
- From March 15-16, the DSWG/P61WG Project Directed attended and participated in the NRC's Regulatory Information Conference in Bethesda, Maryland.
- The spring 2017 meeting for DSWG members, staff and organizational liaisons was held in Denver, Colorado on April 25-26, 2017. In preparation for the meeting,

during the month of March 2017, we reached out to working group members, staff and organizational representatives re scheduling and worked with the Embassy Suites Hotel in downtown Denver on room reservations and logistical arrangements.

- In advance of the spring 2017 DSWG meeting, during the month of March 2017, we continued communications with boards of OAS, CRCPD and HPS to get their perspectives and input on list of outstanding action items and priorities; finalized and published a report on compact import and export permit requirements; distributed for review and comment an updated disposal cost document that will serve as a companion piece to the educational materials for current and prospective licensees; and, submitted formal comments in response to the *Federal Register* notice that was issued on January 9, 2017 in which the NRC announces that the agency is seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability.

Phone Calls and Conference Calls

From April 1, 2016 through March 31, 2017, the following phone calls and conference calls were undertaken in support of activities of the DSWG and P61WG as follows:

- to prepare for the spring 2016 meeting that was held in Park City, Utah, as well as to coordinate logistics and schedules for the summer 2016 meeting that will be held in Chicago, Illinois;
- to reach out to DSWG members and staff; representatives from OAS, CRCPD and HPS; and, other interested stakeholders concerning the development of and input on draft educational materials for current and prospective licensees of sealed sources;
- to complete follow-up tasks and assignments from the spring 2016 meeting that was held in Park City, Utah;
- to finalize logistics and discussion leader assignments for the summer 2016 meeting that was held in Chicago, Illinois;
- communicate with staff of the State of South Carolina; DSWG members and staff; representatives from OAS, CRCPD and HPS; and, other interested stakeholders concerning suggested edits to the artwork and layout of educational materials for current and prospective licensees of sealed sources;
- to complete follow-up tasks and assignments from the summer 2016 meeting that was held in Chicago, Illinois;
- to prepare for the winter 2017 meeting that was held in San Diego, California in February 2017;
- communicate with staff of the State of South Carolina; DSWG members and staff; representatives from OAS, CRCPD and HPS; and, other interested stakeholders to incorporate edits and additional information on the report on compact import and export authorities to include information regarding NORM and TENORM waste in response to inquiries from source manufacturers, brokers, processors;

- to develop a disposal cost document that will serve as a companion piece to the educational materials for current and prospective licensees of sealed radioactive sources and devices;
- to review and edit of the third draft of an overview of compact import and export permit requirements;
- to collect information from five individual states re source calculation and methodology re number of sealed sources;
- to coordinate implementation of the updated list re DSWG recommendations and priorities;
- to draft and incorporate DSWG comments in response to the NRC *Federal Register* notice seeking input from licensees, Agreement States and the public to inform the staff's assessment of potential revisions to regulations or processes requiring Category 3 source protection and accountability;
- to complete follow-up tasks and assignments from the winter 2017 meeting that was held in San Diego, California in February 2017;
- to arrange logistics, speakers and presentations for the spring 2017 DSWG meeting that was held in Denver, Colorado on April 25-26, 2017.

(See above for additional information.)

Travel

The following travel was undertaken from April 1, 2016 through March 31, 2017 concerning activities of the LLW Forum's DSWG and P61WG:

- DSWG members and staff traveled to Park City, Utah from April 11-16, 2016 to attend and participate in the spring 2016 DSWG meeting, the spring 2016 LLW Forum meeting and associated site tour of the EnergySolutions' low-level radioactive waste disposal facility in Clive, Utah.
- The DSWG/P61WG Project Director traveled to Berkeley, California from April 26-28, 2016 to attend and participate in a workshop sponsored by the Southwestern Low-Level Radioactive Waste Compact Commission on the management and disposition of disused sources.
- The DSWG/P61WG Project Director traveled to Lexington, Kentucky from May 16-17, 2016 to attend and participate in the CRCPD annual meeting and associated sessions on the management and disposition of disused sources.
- The DSWG Project Director, consultants, DSWG members and organizational representatives traveled to Chicago, Illinois to attend and participate in the summer working group meeting on July 7-8, 2016.
- The DSWG Project Director and DSWG Technical Consultant traveled to Spokane, Washington to participate in the HPS annual meeting—including a special session on disused sources—on July 17-21, 2016.
- The DSWG Project Director traveled to Denver, Colorado to attend and participate in the OAS annual meeting on August 21-25, 2016.

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- The DSWG Project Director traveled to Summerlin, Nevada to attend, participate and network at the annual Rad Waste Summit conference on behalf of the DSWG and P61WG on September 6-9, 2016.
- In October 2016, the DSWG Project Director and Communications Consultant traveled to Washington, DC to attend, participate and network on behalf of the DSWG and P61WG at the NAS' low-level waste workshop including breakout session on sealed source management.
- DSWG members, staff and organizational liaisons traveled to Saratoga Springs, New York to attend and participate in the fall 2016 working group meeting from November 8-9, 2016.
- From January 22-25, 2017, the DSWG/P61WG Project Director attended and participated in the mid-year meeting the HPS in Bethesda, Maryland.
- From January 25-27, 2017, the DSWG/P61WG Project Director attended and participated in the EnergySolutions' conference on low-level radioactive waste management and disposal issues in Salt Lake City, Utah.
- From February 5-8, 2017, the DSWG Project Director, DSWG Technical Consultant, DSWG Financial Assurance Consultant, two DSWG members and three organizational liaisons attended and participated in the winter 2017 DSWG meeting in San Diego, California.
- From March 5-10, 2017, the DSWG/P61WG Project Director attended and participated in the Waste Management symposium and subsequent NRC public workshop in Phoenix, Arizona.
- From March 15-16, the DSWG/P61WG Project Directed attended and participated in the NRC's Regulatory Information Conference in Bethesda, Maryland.

(See above for additional information.)