

# LOW-LEVEL RADIOACTIVE WASTE FORUM, INC.

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## Disused Source Working Group Meeting

Wabash River Room  
Embassy Suites Downtown/Lakefront Hotel  
Chicago, Illinois

October 21, 2015

Meeting Minutes

**1:00 pm to 3:00 pm – Executive Session**  
**Working Group Members, Staff Only**

### Attendees:

- Todd Lovinger, DSWG Project Director
- Cecilia Snyder, DSWG Communications Consultant
- Ray Fleming, DSWG Chair/State of Texas
- Gary Robertson, DSWG Technical Consultant
- Kathy Davis, Southwestern Compact
- Susan Jenkins, State of South Carolina
- Leigh Ing, Texas Vermont Compact
- Rich Janati, Commonwealth of Pennsylvania
- Joe Klinger, Central Midwest Compact
- Rusty Lundberg, State of Utah

### Discussion:

- review and approval of agenda items (*DSWG Members and Staff Only*)
  - During introductions, Joe Klinger states he just learned that the Illinois Emergency Management Agency (IEMA) is looking for a 3 curie source that a well logger lost. Members then reviewed agenda and topics to be addressed. No revisions.

- report on significant activities since DSWG meeting in Austin, Texas in July 2015 (*DSWG Members and Staff Only*)
  - presentation and outreach at Health Physics Society (HPS) annual meeting in Indianapolis, Indiana from July 12-16, 2015
    - Ray and Todd give a report on the presentation that the DSWG made at the HPS annual meeting. Todd helped organize presentations for ICC Special Session titled, “End of Life Management of Disused Radioactive Sources—A Global Problem.” The session included presentations by John Zarling on the Off-Site Source Recovery Program (OSRP), Kathy Prior on the National Council on Radiation Protection and Measurements (NCRP) committee review on the disposal of disused sources, Jim Shaffner on the U.S. Nuclear Regulatory Commission’s (NRC’s) recommendations and path forward re byproduct material financial scoping study, and Abigail Cuthbertson on work by the National Nuclear Security Administration (NNSA) on alternative technologies and certification of new Type B transportation packages. There were also several presentations by international speakers, including a presentation by Hilaire Mansoux, who gave a report on International Atomic Energy Agency (IAEA) activities related to the management of disused sources. Ray reports that Mr. Mansoux reached out to him for additional information after the session. Joe Klinger asks for contact information for IAEA representative. ***Send contact information to Joe.***
    - Ray reports that he encouraged HPS to update their recommendations and they agreed in principal to do so, but have not had any further communications on it.
    - Abby spoke with HPS re developing a new working group on alternative technologies. Ruth McBurney made the introductions and this appears to be moving forward.
    - Todd spoke to current HPS President (Nancy Kirner) and gave her some information about the DSWG. Gary says that Nancy was his boss when he worked for the Washington Department of Public Health. ***Gary assigned with following up with HPS to see if they are interested in coming up with updated recommendations.***
    - Joe brings up idea of creating a board via Conference of Radiation Control Program Directors (CRCPD) re unwanted radioactive material to see if anyone else wants it. Kathy says that the Southwestern Compact is working on a reutilization committee; says a lot of discussion re interpretation of words and so forth. Joe and Ray confirm that CRCPD’s E-34 Committee has discussed the possibility of doing that as well. Gary says that early on, the first working group discussed this, but need more information. Southwestern Compact feels that they could provide a tracking system to determine if a disused source was transferred or disposed of. Joe says could possibly build it via CRCPD.
    - Ray talks about how transition away from SCATR and OSRP so that it is more broker-driven. ***Perhaps make this part of continued funding application.*** Gary says he is on CRCPD’s G-71 Committee and that they are looking at containers; terminology has

gone from “brokers” to “service providers.” Ray thinks it should be more commercially driven for recycle of sources rather than OSRP. Todd reminds everyone about concerns that NNSA has expressed over reuse and recycle, as they interpret their mission to be permanent disposal for security reasons. Gary reiterates difficulties posed by security issue.

- presentation and outreach at Organization of Agreement States (OAS) annual meeting in Boston, Massachusetts from August 23-27, 2015
  - Ray provides report of his presentation at OAS annual meeting. He notes that he got challenged publicly on how do we talk Commission into reopening General License (GL) issue when they previously decided not to move forward with it; Jennifer Opila spoke up in favor of it. The working group members agree that OAS seems to be coming around slowly.
  - Ray notes that Mike Welling is opposed to use of term “financial assurance.” Todd notes that he used term “financial planning” when finalizing and submitting DSWG comments on byproduct material financial scoping study to NRC.
  - Joe says Illinois has some GLs that are required to post financial assurance.
  - Ray expresses concern about what to do with regard to financial assurance for leaking sources; what do with insurance for that?
  - Rich reports that Pennsylvania is looking at a rulemaking to require financial planning for radioactive sources including GL sources; however, they are waiting to see what NRC will do as well.
  - Ray says that when looking at financial planning, he thinks need to look beyond disposal. Rusty says that is what they do for underground tanks; if you want to tap into state insurance fund, you need to show that you meet certain requirements, pay deductible and then insurance will kick in after that. Leigh says Texas used to collect a fee from underground tanks and then used it toward insurance. Joe says that in Illinois, they have taken money from fund
- special event re management and disposition of sealed sources in the State of California on July 28, 2015 and July 30, 2015
  - Kathy gives an overview of the workshops that the Southwestern Compact Commission hosted in July 2015. She says that, in Northern California, there were a lot of generators and universities in attendance. Attendees expressed concern that research can last 10 to 30 years. She reports that they received good feedback from users. In Southern California, more manufacturers and brokers were in attendance. They did not get to cover the entire agenda, but had very good dialogue. Kathy feels that the workshop helped generate Mary’s interest in submitting comments on financial planning.

- Kathy says that the Southwestern Compact will probably do a follow-up workshop in the first quarter of next year with an update on where compact is at on the issue, as well as where Waste Control Specialists (WCS), EnergySolutions, SONGS are at in this point in time. Hopefully, get some momentum for other compacts to do something similar.
  - Todd provides experience from Southern California. Says that he felt it was an excellent workshop. Notes that there was some misunderstanding with regard to application of proposed Texas two-year storage rule, as well as with regard to issues concerning NNSA's ability to assist with Type B package limitations.
  - Leigh gives her perspective of issues discussed in Northern California. She notes that there was some discussion that licensees don't have money for disposal, but need to get money. There was also discussion re what industry is doing to get in the way. Leigh said Texas Compact is considering doing a similar workshop within their compact region.
  - Rich asks how much of an issue is transportation casks. Gary says that G-71 Committee is looking at having service providers come in and get sources prepared for transport in Type B casks. Group then discusses issue of renewing certifications and different perspectives. Ray says there is a huge jump going from Type A to Type B and there should be some middle ground (exemptions, other types of casks, etc.). This is followed by a lot of discussion about the cask issue. Leigh says that one of her Commissioners asked why source licensees are not shipping. She spoke to them – part of it was funding, part of it was casks, part of it is that they way over-estimated curies. Leigh says what will drive discussion is the need and back-up of volumes. She agrees that there are not enough casks to ship them.
  - Gary says there is no incentive to make licensee dispose of material. Once add on cost of cask, they would rather leave it just sit there.
  - Ray says at OAS, Chris Boyd of New York set up side meeting and he said that he has over 20 generators that are interested in clearing out safe irradiator inventory, but casks are not available.
  - Joe says NNSA is driving this, but no incentive. He is a proponent of storage time limits.
- Texas draft storage rule: status of proposal, feedback received to date, and next steps
- Ray reports that he encouraged HPS to update their recommendations and they agreed in principal to do so, but have not had any further communications on it.
  - Abby spoke with HPS re developing a new working group on alternative technologies. Ruth McBurney made the introductions and this appears to be moving forward.

- Ray reports that the two-year storage limit rule has been approved by Texas Department of State Health Services (TDSHS) Counsel and is now before the Commissioner, who needs to give his approval before it can be published in *Texas Register*. It has been sitting on his desk for 6 weeks. As far as Ray knows, nobody is trying to stop it. Ray has had a lot of discussions, but stakeholders have been relively accepting because they put in language re alternative plans and exemptions.
- Once published, there will be a period for public comment, during which TSDHS plans to have a hearing. Ray says that they are very close and he is trying to do it as part of the March 2016 deadline for implementing Part 37.
- announcement in early October 2015 that the U.S. Federal Bureau of Investigations (FBI) helped to thwart several plots to sell nuclear material in Moldova for potential use in a dirty bomb
  - Todd notes that, the day before the October 7 byproduct material financial scoping study meeting and webinar at NRC headquarters, there was a report issued in major newspapers that FBI thwarted plots to sell nuclear material to terrorists for potential use in a dirty bomb. Todd refers DSWG members to article in packets for additional information.
- release of Interagency Working Group Report on Financial Assurance for Disposition of Category 1, 2 and 3 Radioactive Sealed Sources
  - Todd notes that, in July 2015, NRC quietly released the “Interagency Working Group Report on Financial Assurance for Disposition of Category 1, 2 and 3 Radioactive Sealed Sources.” The interagency working group reports mirrors many of the recommendations from the March 2014 DSWG report. Todd refers DSWG members to report document in packets for additional information.
- NRC’s byproduct material financial scoping study public meeting/webinar and submittal of comments by DSWG and others
  - Todd reports that formal comments submitted on behalf of DSWG to NRC re byproduct material financial scoping study. Todd distributed to other stakeholders in advance for input and feedback. Stakeholder comments included as an appendix to submission.
  - Leigh comments that NRC would be more likely to get comments if they put something out for people to review. Rusty says that he was on call for public meeting/webinar. Rusty says he felt that stakeholders missed opportunity to identify transportation as a hurdle.

- Joe says he thinks that this is to pacify NRC Commissioners, but staff does not really want to do it. Rusty agrees that NRC staff is hesitant to do something proactively. Leigh gives example of regulating hospitals and hesitancy to move forward.
- Gary says people are using transportation casks somewhat as an excuse, but even Class A is not being disposed of because there is no hammer.
- Todd raises idea of asking for funding for a meeting where we can get other stakeholders together in person. Group agrees. Group sentiment is to focus on a few items from report. Leigh asks what would be the goal if get together stakeholders. Kathy suggests sending a letter to Congress. Leigh would not advocate funding to just write a letter. Leigh says when we did survey, it had a palpable impact and helped us to push agenda. Joe points out that Radiation Source Protection and Security Task Force (RSPSTF) report goes to Congress. Todd responds idea was to meet to form coalition and identify areas of agreement where we can work together and put pressure on NRC to act.
- Leigh says there is no coalition amongst the oil and gas industry that focuses on disused sources generated in the exploration and production of oil and gas.
- Rusty suggests that if Julia Schmidt is still representative of OAS on RSPSTF, may want to have her come to coalition meeting.
- Gary raises issue of having DSWG meet with NRC Commissioners. Joe comments that NRC staff sanitized report before giving information to Commissioners.
- ***Action Item: Group wants to proceed with formation of coalition, with understanding that intent is to push NRC toward implementation. Perhaps consider setting up meeting with Commissioners after coalition formed to try to impact 2018 issue of RSPSTF.***
- Ray thinks that starting with HPS is key because they represent users; they are the professional health physicists and represent the private sector. Perhaps use mid-year meeting as jumping point and draft resolution to present at that meeting.
- ***Action item: Have Cecilia identify comments on byproduct material financial scoping study and put list and links on web site***
- outreach to and coordination with other stakeholders (*DSWG Members and Staff Only*)
  - Conference of Radiation Control Program Directors working group on financial assurance for disused sources: participation in conference calls and path forward
  - Todd reports that several DSWG members met with Anine Grumbles in St. Louis in May 2015 during CRCPD annual conference. Todd invited Anine to this meeting in Chicago, but she was unable to do so due to a lack of travel funding. Todd expresses

concern that Anine said she would likely retire next year. Mike Klebe and Dave Martin are also part of the working group, which holds a conference call once a month. Refers DSWG members to document in packets for additional information.

- **Action item: Gary will contact Dave, Anine or Mike to get on distribution list and begin participating in monthly conference calls and then do a brief write-up of each call for DSWG distribution.**

- National Council on Radiation Protection & Measurements'

- Todd and Ray have communicated with Kathy Prior about the work that NCRP is doing on this issue. Based on the abstract that Kathy submitted for the 2015 NCRP annual meeting, their findings and recommendations appear to be closely aligned to those of the DSWG. Todd spoke to Kathy at HPS annual meeting and tried to get her to come to this meeting in Chicago, but she was unable to do so due to a lack of travel funding.

- Advisory Committee on Medical Uses of Isotopes (ACMUI)

- Rich Janati reached out to ACMUI about having DSWG give a presentation at one of their meetings, but we were unable to do so this year due to conflicts with Todd and Ray travel schedules. Frank Costello told Todd at OAS annual meeting that ACMUI is somewhat resistant to meet with us as they do not see a role for them at this time. DSWG agrees to put this aside for time being.

- brokers and processors (forum from November 30 – December 3 in Nashville, Tennessee)

- Todd spoke to Renee Echols about DSWG doing a presentation at annual forum and Renee agreed; however, we were not on draft agenda recently distributed. Kathy comments that forum is mostly for DOE contractor related issues. DSWG agrees to put this aside for time being, particularly given the upcoming broker and processor representation on the scoping session scheduled for Friday.

- licensees (e.g., medical, academic, industry, etc.)

- Following discussion, DSWG agrees to continue to look for avenues to engage licensees via organizations representing medical and academic communities.

- implementation of recommendations contained in the March 2014 DSWG report—status update, prioritization and path forward (*DSWG Members and Staff Only*)

- Members go through recommendations from March 2014 DSWG report to make sure we are in agreement as to priorities using document developed by Todd based on discussion at the summer 2015 DSWG meeting in Austin.

- Recommendation 1—Encouraging Licensees to Reuse Sealed Sources in Inventory and to Consider Alternative Technologies: This is a low-priority as NNSA and Department of Homeland Security (DHS) are taking the lead on this.
- Recommendation 2— Increasing Awareness of the Life-Cycle Costs of Managing Sealed Sources: This is a medium to high priority. Group wants to work with CRCDP E-34 Committee to develop and distribute educational materials. At summer DSWG meeting, Mike Klebe was suggested as a possible consultant for this project. Joe suggests Sam Finkley, who is retired and does consulting work with E-34 Committee, as another option. Susan volunteers to have her office do design once we have substance. **Action Item: Todd include this in new funding request that would begin April 1, 2016.**
- Recommendation 3— 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: This is a low to medium priority for DSWG, as this is something that needs to be done at the federal level. Ray says easiest path forward would be to have NNSA add this as a requirement for group that issues federal grants. Leigh says this will have big impact if create incentive. Group agrees to have dialogue with NNSA and ask them to go to the grant group for a specific answer—i.e., grant money for research irradiators higher if use alternative technology.
- Recommendation 4—The NRC should amend its regulations to require a Specific License (SL) for all Category 3 sources: This is a medium to high priority, as we are getting traction on this and NRC was close to doing it previously. DSWG should continue to set up side meetings at upcoming industry events to discuss with HPS, OAS, NRC and others. Todd notes that in March 2014 DSWG report, we included footnotes with positions of other organizations. Leigh suggests that this is a good topic for the coalition.
- Recommendation 5— The NRC should expand the National Source Tracking System (NSTS) to track Category 3 sources: This is a low priority as there is not enough support amongst state radiation control program directors per survey responses.
- Recommendation 6—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: This is a medium priority for states only. Perhaps not pursue with NRC at this time, but acknowledge that states could do more work on this and try to get states to do this via CRCPD, LLW Forum, OAS, etc.
- Recommendation 7—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: This is a high priority. We recently submitted formal comments on byproduct material financial scoping study. Bring up with



coalition and see where others stand with regard to sources below Category 2. **Action Item: Gary contact Anine and begin participating in monthly calls with CRCPD working group and then write up overview to share with DSWG.**

- Recommendation 8—The existing NRC-CRCPD program should be adequately funded to address orphaned and abandoned sources throughout the U.S. Individual states should retain the ability to operate their own orphaned and abandoned source programs, such as is currently done in Texas: This is a low priority as this is already being handled sufficiently via CRCPD and states.
- Recommendation 9—To provide a financial incentive for disposal and increase awareness of sources in inventory and especially in storage, the NRC and Agreement States should require licensees to pay an annual fee for each source in its possession, similar to what Oregon now has in place. The fee should be sufficient to provide licensees with an incentive to promptly dispose of disused sources rather than store them: This is a low priority as difficult to implement on national scale and coalition unlikely to support. Note that it got some positive results on survey, although not as high as on storage limits and do not have very strong base of support for having per source fees for disposal.
- Recommendation 10—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: This is a medium to high priority. Texas is taking the lead on this as discussed earlier and several other states have expressed interest in doing so as well.
- Recommendation 11—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: This is a medium to high priority, as it is relatively easy to do by just looking at the use log. Recommendation to consider drafting some regulatory language.
- Recommendation 12—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: This is a medium to low priority. Group agrees that this will follow if succeed with Recommendation 10.
- Recommendation 13—The NRC should work with sited compacts to ensure that the agency’s actions do not create orphaned waste as a result of allowing the importation of sealed sources from foreign countries. In particular, the NRC should reconsider its policy of allowing sources used in foreign countries to be imported unless it is

determined that the sources have a commercial disposition pathway. With regard to sources that are imported for recycle purposes, NRC should establish stringent, enforceable criteria as to what constitutes legitimate recycling, including assurances that most of the imported radioactive material in sources is actually recycled in a timely manner: This is a low priority, as facilities in sited states are not allowed to accept internationally-generated sources.

- Recommendation 14—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: This is a medium priority. The DSWG acknowledges that there are several hurdles and impediments here, but group would like to continue pursuing the issue. DSWG agrees to work with CRCPD on this item.
- Recommendation 15—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: This is a medium priority. This is part of the charter of the E-34 Committee and CRCPD has expressed interest, but may need to get funding for a new position. There are several hurdles and impediments here, but group would like to continue pursuing the issue.
- Recommendation 16—The NRC, Agreement States and compact commissions should encourage licensees to take advantage of both the Texas Low-Level Radioactive Waste Disposal Compact (Texas Compact) disposal facility and the Source Collection and Threat Reduction (SCATR) program’s efforts to collect Class A sources for disposal at EnergySolutions’ Clive facility in Utah under the one-year exemption that ended in late 2014: This is a completed task, as this is already being done.
- Recommendation 17—States that host Class B and C low-level radioactive waste disposal facilities should review their policies, waste acceptance criteria, and the alternate approaches methodology provided in the NRC’s revised Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP) to potentially allow disposal of higher activity sources: This is a pending task that is being done by the Electric Power Research Institute (EPRI) via their working group, on which Susan and Rusty are participating. Susan will follow-up to see if EnergySolutions has decided whether or not to ask South Carolina to implement the new CA BTP.
- Recommendation 18—The Texas Compact should continue to allow the disposal of sealed sources from outside the compact: This is a completed task as WCS is already accepting out-of-region sealed sources for disposal.

- Recommendation 19—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: This is a medium priority. The DSWG will continue to follow-up with NNSA on this.
- Recommendation 20—The NRC and Agreement States should develop a process that will provide licensees and Agreement States at least one year advance notice of container certificate expiration and should encourage licensees to reuse, recycle, or dispose of the affected sources before the certificate expires: This is a low priority. The DSWG agrees to set this aside for now as some believe it is problematic and the vast majority of the time the certifications get renewed.
- Recommendation 21—NRC and U.S. Department of Transportation (DOT) should continue to work together to increase the availability of Type B shipping containers by expediting the review and approval of new Type B NNSA package designs, NNSA applications for certification of foreign package designs, and packages developed by industry, as recommended in the 2010 Radiation Source Protection and Security Task Force Report, Recommendation 8: Group agrees that Type B casks continue to be a problem and should be an area of focus for working group.
- Recommendation 22—The DOE should contract for a market study for Type B containers to determine their market demand. The purpose of the study would be to determine if there is sufficient profit potential for the private sector to produce additional containers: Leigh says there will be a lot of movement one way or the other on this in the near future, so we will know how to proceed. We need an expert on casks to do something on this. Leigh says that this is a broader issue than disused sources that will effectuate how to move forward on this. Ray and Leigh think it will take a federal directive to get moving forward on this. Rich says his concern is that casks will be used for nuclear power plants. Ray says it is hard with sources in particular.
- Recommendation 23—Congress should continue to fund NNSA activities for the collection of orphaned and abandoned sources and sources that do not meet the waste acceptance criteria of commercial disposal facilities. In providing these services, NNSA should ensure its actions continue to be in compliance with state and compact requirements: DSWG agrees that this is currently being done and no further action therefore required at this time.
- Recommendation 24—NNSA should consider shifting a portion of the resources currently used for SCATR and GTRI/Off-Site Source Recovery Project (OSRP) from the collection of non-orphaned or abandoned sources that have commercial disposal pathways to the creation of an outreach program to educate licensees on life-cycle obligations related to sealed sources including actively assisting licensees with identifying resources (e.g., brokers and processors) for packaging, transport and disposal of disused sources: DSWG agrees that this is partially done in that NNSA has

already reduced federal contribution via SCATR from 50% to 45%. Nonetheless, the DSWG will continue discussions with NNSA to ensure that they are not taking back sources via OSRP that have commercial disposition option.

- survey re management and disposition of disused sources (*DSWG Members and Staff Only*)
  - potential further action regarding results of state radiation control program directors
  - potential revisions to and distribution of new survey to other stakeholders (e.g., licensees, federal regulators, waste processors, waste disposal facility operators, etc.)
    - Following discussion, members agree to put this on hold for the time being.
- other outstanding issues and considerations (*DSWG Members and Staff Only*)
  - planning for Friday panel re brokers and processors perspectives on disused source management and disposition
    - Kathy asks what is our expectation as DSWG in terms of what we want to achieve with Friday session. Todd responds that we want to make sure that we have some interactive dialogue.
    - Ray says that Larry is trying to figure out how to improve source disposal.
    - Todd says this is meant as a scoping session. Hopefully this will help us with creating a united coalition.
  - next DSWG meeting date and location (*Todd Lovinger, LLW Forum*)
    - Members agree to have a conference call in November and to consider an in-person meeting in San Diego in late January. (Note that Texas Compact is currently scheduled to meet on November 12, 2015 and January 14, 2016. Also, EnergySolutions is scheduled to host a meeting on January 14-15, 2016.)
  - any other outstanding issues
    - Joe suggests putting together a document of new priorities. Susan does a quick analysis and suggests the following: High = 7; Medium to High = 2, 4, 10 and 11; and, Medium = 6, 14, 15 and 19.
    - Following discussion, the group agrees to identify priorities based on responses to joint survey with CRCPD and discussion at summer 2015 DSWG meeting in Austin.
    - **Action Item: Create new document showing priorities from survey and group discussions and send out to DSWG.**

***Closed Session Meeting Adjourned***

**3:00 pm to 5:00 pm – Limited Open Session**  
**Working Group Members, Staff and Invited Guests**

Additional Attendees:

- Mike Klebe, Consultant CRCPD SRS Committee
- David Martin, Consultant
- Larry McNamara, Consultant
- Temeka Taplin
- William Stewart, Consultant
- Joy Ferguson
- Maegon Barlow

Discussion:

- update and path forward re Conference of Radiation Control Program Directors (CRCPD) working group on developing suggested state regulations concerning financial assurance for disused sources (Mike Klebe and David Martin)
  - Mike has been retired for about a year now and consulting with SRS Committee moving forward. He would like to say that they are making progress, but does not think much progress is being made. The problem is that the process relies upon state people that have day job to do work.
  - The SRS Committee has established criteria for financial planning. (See document from Mike titled “New Criteria for Financial Surety by Half-Life, Activity and Type of Material.”)
  - They have suggested getting rid of fixed fees because it is fixed in time and updating is difficult; everything is based on a decommissioning planning estimate.
  - People on committee include Mike Klebe, David Martin, Anine Grumbles and someone from Ohio. Rusty says Russ Topper from Utah is supposed to participate as well.
  - Have focused on Category 1 and 2 disused sources. They would like to also include Category 3. They recommend getting rid of General Licenses (GLs).
  - Anine was going to start to work on language, but also heard that Anine is planning to retire at end of year.
  - Kathy asks if this is what he is presenting for the LLW Forum meeting panel. Mike says his presentation for panel will focus more on what is financial assurance and what are the benefits and drawbacks. None of that represents any useful money to the licensee to help them actually dispose of the sources once disused.

- There are 54 jurisdictions that fall under NRC jurisdiction. Almost all of them are identical. Only 3 are outliers – Illinois which requires financial assurance upon reaching one curie; State of Florida does it by category and applies a risk multiplier to each to determine financial assurance; and, State of Tennessee has no financial assurance requirements for anyone other than their processors.
- Of the 20 Category 1 sources nationally that are required to be tracked, none of them require a financial calculation as to actual disposal cost; 14 require the fixed \$113,000 requirement; and, 6 require no financial assurance. Also, none of the Category 2 sources require any financial assurance whatsoever.
- Decommissioning plan provides a dollar amount, but does not provide any mechanism for determining how the licensee will go about meeting that. For Mike's presentation, he divides mechanisms into 2 categories – cash and guarantee method. Larry says even with bonding, you are in a constant battle of when to pull the trigger.
- On Friday, Kelly Grahn will do presentation for Kelly Horn.
- Larry gives examples of Northwest Nuclear and ATG re problems with implementing financial plan.
- One of Mike comments to NRC was that there needs to be some training so that license reviewer will know what makes sense and what does not.
- Mike comments to NRC were to get rid of parent company guarantee and focus on cash.
- Mike says right now, there is no financial assurance on GLs. Joe says that they have a couple.
- Joe asks process for Draft 6-8-15. Mike says Anine sent out for comment, but virtually none received. Now, she is going to start drafting language.
- Anine was going to submit comments from Washington and say that they are from CRCPD SRS working group as well.
- Joe asks if this has been sent out to all program directors for comment? Mike says not sure of whom it went to. Joe says it should go to all of program directors.
- Joe says once completed, it would go to board and be voted on and then sent out. **Action Item: Joe will give Ruth a call to make sure that this is a high priority.**
- This will cause a lot more entities to have to focus on financial assurance than are currently doing.

- Mike says Anine said on Monday that she would start on language. Mike is on committee as an emeritus member.
- Todd asks process. If approved by CRCPD board, then it is suggested regulations for states, but voluntary. Mike thinks that the best chance for success is to have NRC adopt it.
- Joe says if CRCPD board approves it, then NRC is more likely to follow it.
- Mike Klebe says NRC has listened in on the SRS Committees phone conferences, but will not take any action unless pressured to do so.
- Ray comments that he believes that need to have financial assurance for leaking sources – it appears that it may be as much as 1% of sources. Larry comments that states need to start taking care of themselves, even if beyond what NRC requires, and then go back to NRC and say need consistency.
- Larry says there is an argument that should be considered that states have a responsibility to their citizens to establish some level of financial assurance to protect themselves and their taxpayers.
- Ray says that they do this in Texas, but exempt if requested and less than \$5,000 because the process is too cumbersome.
- Kathy says it should be included within a broader scope of risk rather than just radioactive. Larry says problem right now is that there is no pressure on RSO to move the sources.
- Dave Martin says his personal opinion is that the financial planning side is very useful in that it educates the licensees regardless of whether or not there is money attached to it. Larry agrees with that comment. If license condition includes estimate of what it will cost to dispose of it, then they should recognize it as a liability. Dave says process encourages licensees to hold until decommissioning.
- ***Action Item: Gary start participating in monthly SRS Committee conference calls and report back to DSWG.***
- experiences and lessons learned from State of Illinois (Mike Klebe)
  - There is a session on this topic scheduled for the Friday morning scoping session.
- planning and preparation re scheduled Friday LLW Forum meeting agenda session with brokers and processors (Larry McNamara)
  - Kathy asks Mike what type of questions would you like to see generated after your presentation? Mike says he wants to see jaws drop that do not have money set aside for financial assurance.

- Rusty says it will be interesting to see how facility operators respond because they do not want to give cost estimates.
- Ray says he talked to John McCormick about that. He suggests not giving best figure, but give a reasonable number.
- Larry says if there is a disposition path, then will get 25% higher estimate. Licensees will do all that they can to reduce estimate. Purpose of estimate is to inspire management to plan forward.
- Mike says his perspective is that disposal cost estimate should cover you for the period until your next review – i.e., cycle of cost estimates.
- development and distribution of materials to educate licensees about the life-cycle costs related to source management prior to purchase (all meeting attendees)
  - Larry says reason for panel is that all of the activities associated with CRCPD and SCATR are awesome, but universe is so much bigger. Answer has to be eventually to have this thing become a normalized commercial operation. Idea is to talk about current status of commercial operation associated with disused sources and talk to brokers and processors for unique perspective.
  - Kelly will give examples of when there has been non-compliance and impact of having state come in and respond. Idea is if you do not get rid of it, here is what can happen.
  - Mike will discuss suggestions with financial planning – i.e., how do you get the RSO to make a decision that will allow his manager to get him the dollars for disposal. Idea is to have an increase in visibility to add pressure.
  - Bill is going to provide information re what they are doing with SCATR program – i.e., will some of it be available to commercial brokers and processors, can state step in to try to make that happen, etc.
  - WCS, EnergySolutions and Temeka will give status update with casks.
  - Larry has asked Travis Snowden to talk about recycle. Travis has been working for years to try to find a path forward for recycle.
  - Permafix is trying to do an evaluation now as to what can they do to expand business to enter this area.
  - Larry's hope at end of day is that we will have enough of an idea as to where we should go to incentivize commercial market to deal with and dispose of disused sources. Thinks we will get more information.



- Todd asks about economic disincentive. Larry says that will be an issue. Not enough of an economic incentive for them to do this.
- Ray says that in Texas, they allow them to package sources without having it manifested and ship it legally as radioactive material in the same box that it came in on. This may be the answer. If they can ship to a facility somewhere without manifesting so that it could be consolidated and more economically viable. Intent is to start a national conversation re commercial disposal and using systems that exist to get rid of sources.
- Gary says this will be a problem for Handford and possibly South Carolina.
- Ray says can ship under bill of lading and dispose.
- Todd asks question re why is this not working in Texas? Ray says currently have no brokers and processors in Texas.
- Texas Compact has not taken a position other than that the company has to keep records and know who was the original generator.
- Rusty comments that they saw this a little with the Clive variance. If could set up a consolidation facility that has access to Clive or WCS, then the back-end could provide some of the economics to make it viable.
- Group agrees that there is a lot of that benefit with regard to the SCATR program, but have not as of yet been able to do it as a viable commercial option.
- Tibby Snipes of Perma-Fix is very interested in making it a viable option.
- California is planning to do it according to Kathy. Gary says that the difference is that California does not have a disposal facility. Dave asks if doing this would provide for the economies of scale that are being sought.
- For educational outreach, Mike says primary issue is who is your audience. What is the goal? Ray says are looking at actual users. Mike says need to have cooperation of everyone that will be using sources – pretty much everyone on the SRS Draft 6-8-15. Get message out there in a variety of formats and variety of mediums. These are the steps that you will need to go through to properly and lawfully dispose of sources.
- Gary says that when the original working group first met with Joe, he indicated that he did it in steps in Illinois. Part of the process would be to give information up front to potential licensees as to what they are actually obligating themselves to. Joe said he does not think it is in the licensing guides in Illinois, but probably should be. Illinois, however, does do workshops every once in a while to get the information out there.
- Ray says that, with a lot of companies that have sources, their management does not understand the liability.

- Bill Stewart says give information up front as to what end costs are and what are options for getting rid of source once finished with it.
- Maegon says they are doing a lot with non-isotopic blood irradiators and need to get that information out there early on.
- Need to develop information re what does it take to make my source go away.
- Ray says guidance to states would be helpful.
- Bill says put onus on states as to ensure that licensee understands what they have to do to get rid of sources once they are no longer of use.
- Joy asks what would be process? Ray says it would require involvement of state licensing agencies. Joe thinks it needs to get into formal licensing guidance.
- Maegon asks if NRC Information Notice is adequate?
- Gary says most license applications have information re management. Should send it to higher level. Joe agrees.
- meet and greet with National Nuclear Security Administration (NNSA) officials and discussion re how best to work together to develop a path forward (all meeting attendees)
  - DSWG members meet new NNSA officials including Maegon Barlow and Joy Ferguson.
- summary and overview of day's discussion / closing remarks
  - DSWG will re-evaluate after Friday scoping session via conference call in November.

*Meeting Adjourned*