



COMMUNITY REUSE ORGANIZATION

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**PRESENTATION TO
SAVANNAH RIVER SITE CITIZENS ADVISORY BOARD
September 25, 2018**

**Presented by
Rick McLeod
President/CEO, SRSCRO**



Purpose

- Request from the Strategic & Legacy Management Committee for an update on the Savannah River Site Community Reuse Organization activities.



Agenda

- **Excess/Surplus Assets**
- **Workforce Efforts**
- **SRS Cyber Collaboration Mission**
- **HLW Definition Grassroots Efforts**



SRS Community Reuse Organization (SRSCRO)

- Regional Economic Development entity, formerly known as the Savannah River Regional Diversification Initiative (SRRDI)
- Chartered in 1993
- Business Leaders, Elected Officials, Educators, Economic Developers
- Designated as the Community Reuse Organization for the Savannah River Site by DOE-SR in 1996
- Named formally changed to SRSCRO in 2006



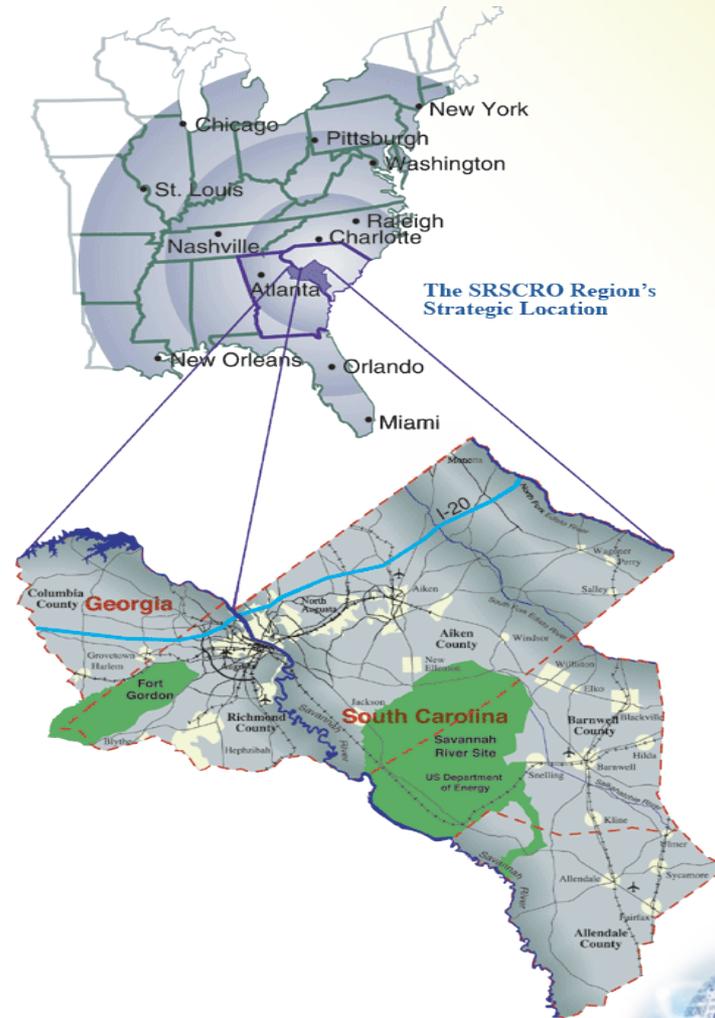
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A Regional Organization

- Board = 22 members (11 from each state)
- Five Counties, Two States
- Designated by DOE-SR as the CRO for SRS
- Private Non-Profit 501 (c) 3
- Funding – Non-Federal Operating Dollars



Assets Transition Program

What is it?

- Mutual agreement between Department of Energy and SRS Community Reuse Organization (SRSCRO) – officially known as *Savannah River Site Asset Transition Plan for Economic Diversification*, signed in December 2005, revised May 2012
- Allows for official transfer of selected excess personal property and related personal property assets from SRS to SRSCRO
- Bottom line is most DOE assets are 60 years old, and not suitable for modern competitive business, so the large majority of assets get liquidated for cash.
- How we do this more efficiently is a constant process, striving for more efficiency for SRSCRO as well as the SRS Contractors, at the same time managing DOE's risks.



SRS Infrastructure (“Equipment”) Age

Over 1/3 of SRS common infrastructure is over 45 years old

Significant portion of programmatic infrastructure is over 60 years old

12%
<15 years

43%
15-30
Years

27%
30-50
Years

18%
>50 Years



Fake News

- **SRSCRO Corporate Headquarters**



- **BMG Corporate Headquarters**



Yard Sale Pricing

2015

- Acquisition Value -
\$1,083,201
 - Gross Sales –
\$118,287
- 11¢ on the \$**

2016

- Acquisition Value -
\$1,536,582
 - Gross Sales –
\$36,978
- 2.4¢ on the \$**

2017

- Acquisition Value -
\$1,149,081
 - Gross Sales –
\$54,962
- 5¢ on the \$**

3-yr Totals

- Acquisition Value - \$3,768,864.10
- Gross Sales – \$210,227.78

6¢ on the \$



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ATP Site Benefits

- Greatly reduces DOE-SR disposition costs
- Less SRNS work, reduced double handling and rework, increased SRSCRO labor component of disposition
- Eliminates "spending a dollar to take out a nickel's worth of trash"
- DOE-SR – no risk; opportunities to disposition are reduced
- SRNS Property Management – compliant, cycle time from DAA to final disposition
- SRSCRO – revenue, net proceeds
- Economic Site Benefits:

– Assets for Services 7 Year Cost Reduction Savings - \$9 million

Avoided Disposal Costs \$ 6.0 M *(steam line, rail, transformers, FM 200)*

Avoided Trailer Demolition Cost \$2.8 M *(over 70 trailers)*

"Kick and Count" Savings \$ 0.3 M *(D Area tools)*

– Potential Future Savings *(Gondola Rail Cars and Partnership with SC National Guard)*



SRSCRO Program Investments

- **Infrastructure Improvement Account**
 - “One-Time” Disbursement of \$1 million in 2014 (\$200,000 per County) to SRSCRO recognized Economic Development Entity in each County.
- **Economic Development Account**
 - \$50,000 per SRSCRO County per year (\$250,000 total – per year) to SRSCRO recognized Economic Development Entity in each County. Such funds must be leveraged or matched 50/50.
- **Workforce Education and Training Account**
 - SRSCRO sponsored initiatives in workforce education and training, such as the Nuclear Workforce Initiative (NWI®) and Regional Workforce Study & Summit
- **Staff Support and Community Issues Account**
 - Whitepapers, Studies, and Reports and (i.e., SRS Infrastructure Needs, SRS Economic Impact Study, Comprehensive Fuel Cycle Research Study);
 - Public Forums and Community Exchanges (i.e., SRS Budget Forum, ECA Peer Exchange);
 - Meetings (i.e., Local, State and Federal level meetings on SRS community issues).
- **Asset Revitalization and SRS Reindustrialization Account**
 - SRSCRO financial resources on self-performed asset removal projects and potential reindustrialization efforts.



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SRSCRO 5-Year Community Investments

<u>2014</u>	<u>2015</u>	<u>2016</u>
\$1,102,163	\$852,379	\$492,781
<u>2017</u>	<u>2018 YTD</u>	<u>5-Year Total</u>
\$688,100	\$317,028	\$3,452,451

Typical Projects

- Point Salkehatchie Industrial Park
- Regional Workforce Study
- Career Connection Forum – Manufacturing & Cyber
- Asset Revitalization
- Sage Mill Industrial Park
- SRS Economic Impact Study
- TechNet Augusta
- Congressional Staffer Workshop
- Nuclear Science Week Educational Outreach
- Unisys Project



Education Philosophy

We have an obligation to ensure that people of our region develop the skills needed for jobs in our region.



Growing Our Own Through Collaboration®

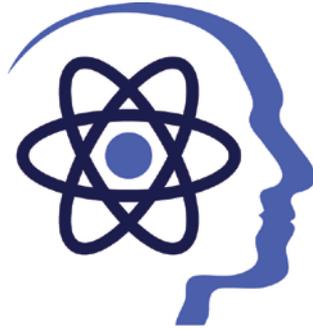




SRSCRO Workforce Grants

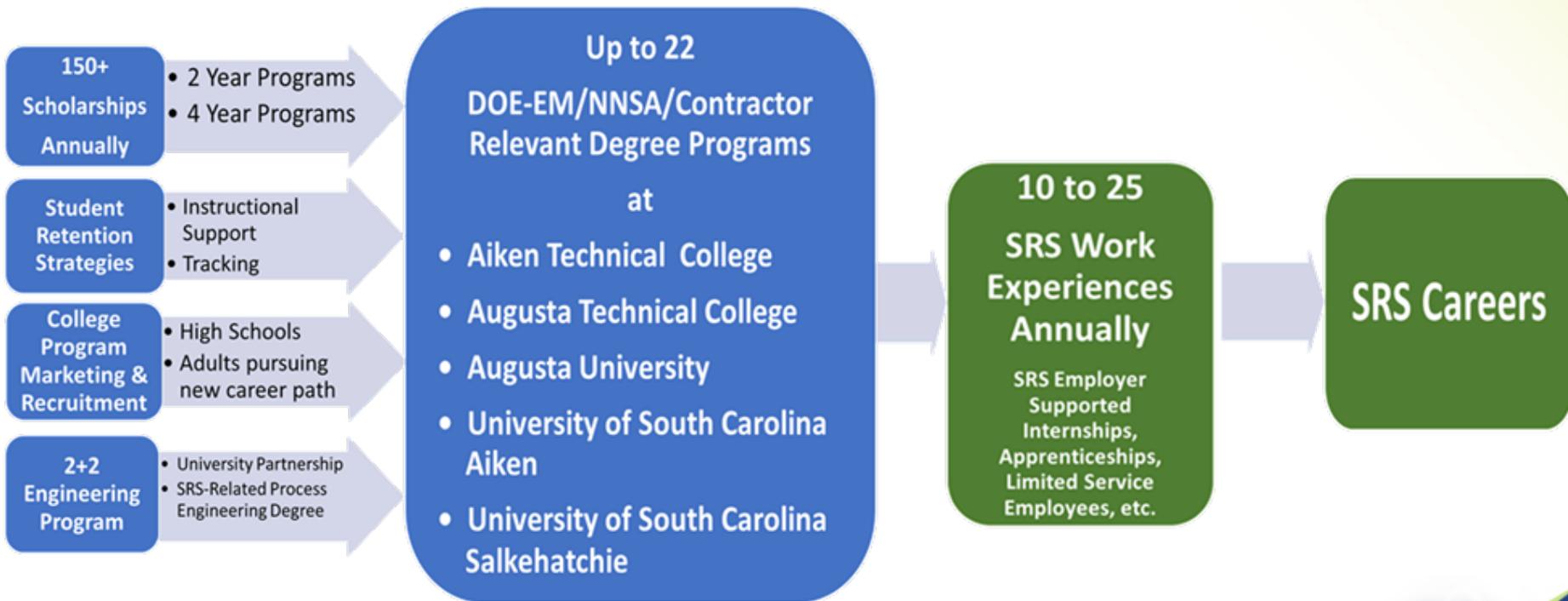
	ANSR	WORC To Date	Total
Aiken Technical College	\$1,005,262	\$266,753	\$1,272,015
Augusta Technical College	\$972,709	\$324,775	\$1,297,484
Augusta University	\$804,371	\$300,623	\$1,104,994
University of SC Aiken	\$779,076	\$309,444	\$1,088,520
University of SC Salkehatchie	\$392,014	\$272,115	\$664,129
Total	\$3,953,432	\$1,473,710	\$5,427,142





W O R C

WORKFORCE OPPORTUNITIES IN REGIONAL CAREERS



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WORC Impact (May 2016 – August 2018)

- 450 scholarships awarded in 27 relevant education & training programs (range of \$500 to \$3,300 per student)
- 102+ students selected for internships at SRS
- 54+ students from WORC programs hired at SRS
- 19 + technical college students selected for new SRS internship opportunities that align with long-term workforce needs (RPT & Maintenance)
- 6 SRS Employer/Educator meetings to address program alignment with workforce needs
- New promotional strategies initiated to publicize relevant training programs using social media



US 2020

STEM Coalition Challenge

- Allendale STEM Community Coalition Team selected to join National US2020 Community of Practice (8 awards/92 applicants)
- Received 1 of 3 Grand Awards \$50,000 plus \$50,000 match by SRSCRO
- Grant Period - July 2018 – July 2020
- Components:
 - STEM Mentoring
 - Maker-Centered Learning
 - Local Coalition Advisory Committee

US 2020 Initiative



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SRS Cyber - Phase I Study Conclusion

Summary of key findings in support of SRS leadership in the Energy sector, Defense sector, and Critical Infrastructure cybersecurity leadership:

- Strong regional synergies and collaborative initiatives.
- The SRS is ideally situated and equipped to play a role in critical infrastructure cybersecurity.
- Development costs in the region are low.
- Investment and growth in the area are historically stable and is likely to increase.
- Low cost of living and regional incentives may draw external talent to the area and SRS.
- The SRS is situated and equipped for onsite and offsite cybersecurity missions.
- SRNL has a robust cybersecurity and cyber-hygiene reputation.
- The site has space and facilities to host emulation and gamification exercises.
- Augusta University is affiliated with SRS and offers numerous cyber-related degrees.
- USC Aiken is also affiliated with SRS and is improving its computer science, cybersecurity, and engineering degrees.
- Regional K-12 efforts will increase the cybersecurity workforce in the near future.



Cyber Study - Phase II

Socialization of the Cybersecurity Potential of the Savannah River Site. This socialization campaign which will consist of:

- A research report published by ICIT - summarize the findings of the Phase I Study in a new 'consumer friendly' report.
- Distribution to stakeholders including the legislative community, federal agencies, and critical infrastructure community members
- Educational engagement with policy makers
- Engagement/Socialization with traditional media and social media
- Creation of digital thought leadership assets - Examples include an ICIT Cyber eTalk featuring cybersecurity leaders from the SRS or a podcast interview.



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Cyber Study – Legislative Strategy

- Proposes to help create a government affairs strategy for this regional partnership that engages congressional committees and offices with jurisdiction for cybersecurity funding and policymaking.
- The purpose of these congressionally focused activities would be to raise the cybersecurity profile of SRS and partners, protect and/or seek specific programmatic funding opportunities, and, when appropriate, advance legislative language that solidifies the long-term of interests of SRS as a nationally recognized leader in energy-sector cybersecurity.
- A champion must be identified.
- Plan and Execute a “Federal Summit”
- Compliment the proposals for a “cyber first responders” or “cyber national guard”.



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We do the right thing.

2) DWPF Macrobatches Analysis - Process, Methodology & Characterization

- Preliminarily, up to 2,311 canisters in DWPF Canister Macro-Batches 1-4 (MB1-4) potentially meet the assumed WIPP Waste Acceptance Criteria (WAC).
- Limiting items are Sr-90, Ci/L and Wattage.



Note: Values are averages

		MB 1	MB 2	MB 3	MB 4	MB 5	MB 6	MB 7	MB 8
		SB 1A	SB 1B	SB 2	SB 3	SB 4	SB 5	SB 6	SB 7A
Canisters		495	726	363	727	314	323	194	197
Cumulative Canisters		495	1221	1584	2311	2625	2948	3142	3339
Field (R/hr) at Contact	1000 R/hr max	5	20	29	40	52	134	153 and higher	184 and higher
Wattage	50 watts max	4	19	25	32	45	121	120 and higher	97 and higher
Radionuclide	Class C Concentration Limit, Ci/l								
Sr-90	7	.48	3.65	4.67	5.99	8.22	23.65	21.6	17.80
Tc-99	.003	.0002	.00019	.00013	.00023	.00016	.00019	.00012	.00013
Cs-137	4.6	.059	.146	.277	.379	.401	1.057	0.45 - 1.72	0.75 - 2.54
I-129	.00008								0.000004
Ni-63	0.7	.003	.008	.020	.067	.074	.116	.125	.031
Total Ci/l	23 max	0.66	3.98	5.31	6.90	9.23	25.56	23.23	19.28

Using WIPP for SRS Canisters

DOE OFFICIAL: USING WIPP FOR TANK WASTE WOULD AVOID COSTS

Disposing of some tank waste from Hanford and Savannah River at the Waste Isolation Pilot Plant could save costs, but the Department of Energy would have to first shift to a risk-informed basis for its waste disposal decisions, a DOE official said late last week.

More than half of the budget for DOE's Office of Environmental Management is spent on tank waste, but some tank waste that meets the WIPP acceptance criteria cannot currently be sent there because it is considered high-level waste as a result of how it was created.

WIPP is currently limited to only being able to accept defense-related transuranic waste. **“Opening up WIPP would give us opportunities to have some cost avoidance within the EM system. Right now we have 2,300 canisters that have been produced down at Savannah River that when you put them through the criteria they meet the current WIPP [Waste Acceptance Criteria], but they can't go there because they are high-level waste,”** Jay Rhoderick, EM Associate Deputy Assistant Secretary for Tank Waste and Nuclear Material, said at the RadWaste Summit in Las Vegas. *(September 2013)*



2013 Community Exchange



Original 2013 Objective

- The Savannah River Site Community Reuse Organization (“SRSCRO”) Region would like to work with the City of Carlsbad to facilitate - within the next 4 years - the shipment of defense high-level waste (“DHLW”) canisters located at the Savannah River Site (“SRS”) to Waste Isolation Pilot Plant (“WIPP”) for disposal.



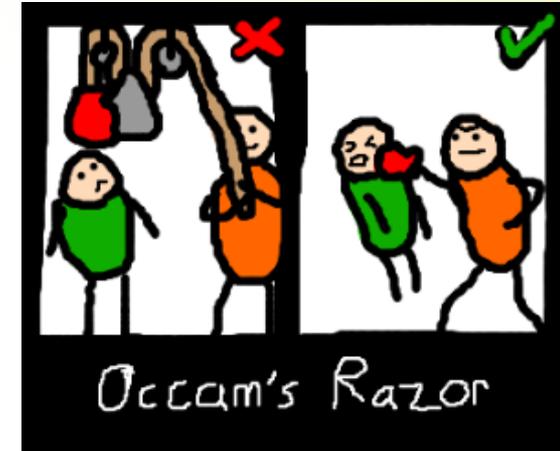
Grassroots Meetings

- Congressional staffers
 - Dating back to late 2013
 - Met with all affected Congressional districts
 - October 15, 2014
- Congressional Workshop – August 13-15, 2014
- New Mexico State Officials
 - October 15, 2013
- South Carolina DHEC & Governor Staff
 - October 23, 2013



OCCAM'S RAZOR

Occam's Razor
The simplest explanation is usually the correct one.



FRANK & ERNEST® by Bob Thaves



SRS

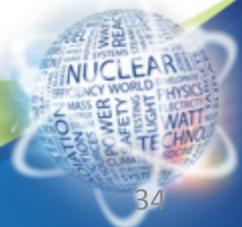
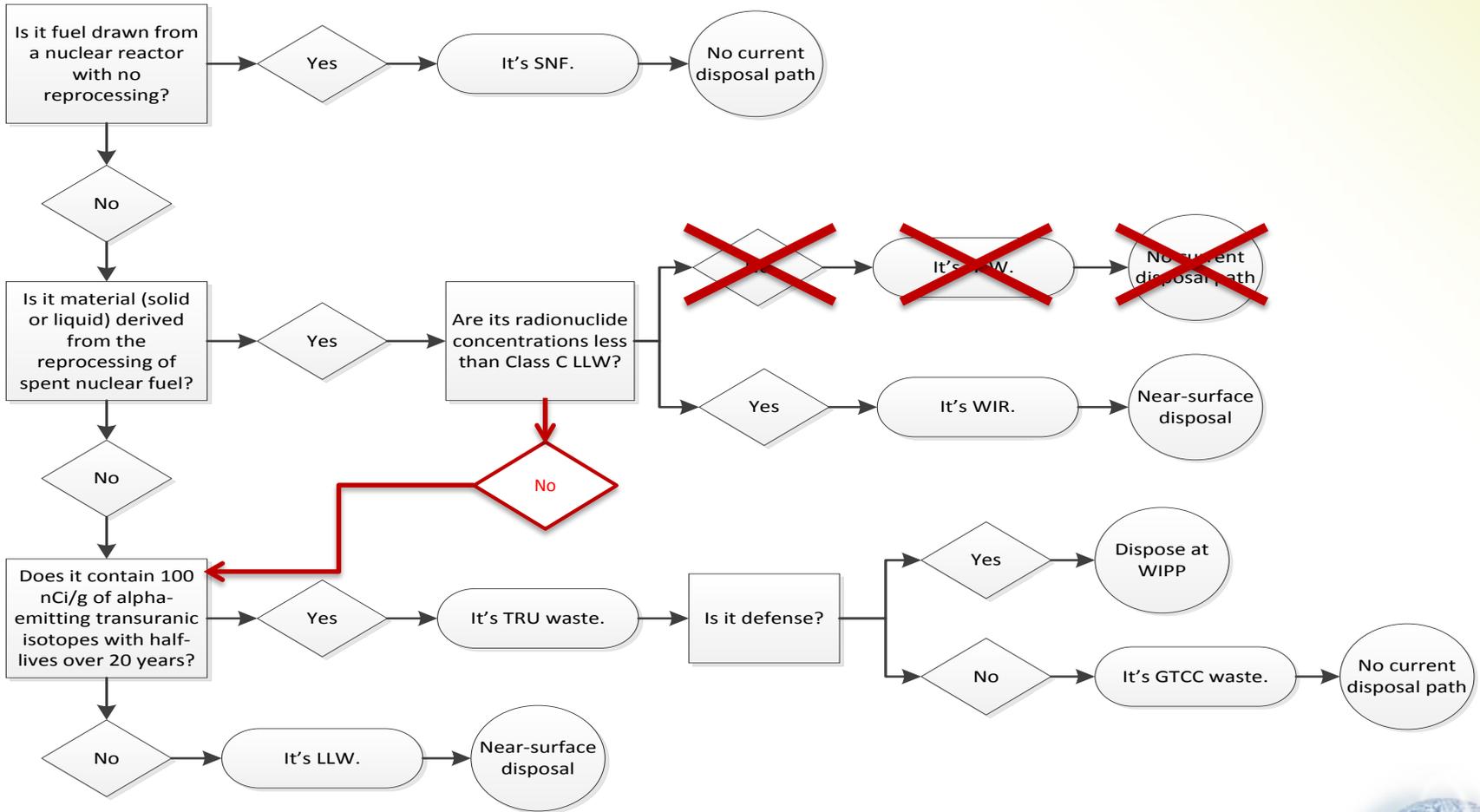
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NWI NUCLEAR WASTE INITIATIVE
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AN ENERGY SOLUTION ORGANIZATION



Revised waste classification flow chart



Original Legislative Change

- Define TRU
 - Simple amendment attached to some existing legislation
 - Ensure good technical basis (maintain credibility)
 - Engineering
 - Safety
 - Environmental
 - “Regardless of origin or previous categorization, radioactive waste, other than spent nuclear fuel, containing more than 100 nCi/g of alpha-emitting transuranic isotopes with half-lives greater than 20 years is transuranic waste.”



Current Objective

- Change the way that radioactive waste is defined/characterized so that the origin of the waste is not a consideration and, therefore, provide additional storage and disposal paths for the waste.
 - WIPP
 - Waste Control Specialists



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ECA Whitepaper

Energy Communities Alliance (ECA) prepared a “whitepaper” – *Waste Disposition: A New Approach to DOE’s Waste Management Must Be Pursued*. This paper outlines alternative approaches to waste management, beginning with clarifying how nuclear waste types across the complex are defined. It was widely distributed at last year’s DOE National Cleanup Workshop and was well received.

ECA members support a two-pronged approach with two distinct but complementary strategies:

1. An administrative approach that will use existing DOE authorities provided under DOE Order 435.1 to provide the clarity in how waste is defined.
2. A legislative approach to codify the statutory change in the legal definition



SRSCRO Legislative Fix

Some communities, such as those around the Savannah River Site, have already developed legislative language consistent with the existing definition of HLW for consideration. The Savannah River Site Community Reuse Organization, for example, proposes that the text below could be placed in legislation (e.g., the NDAA or other appropriate legislation) to capture and clearly define radioactive wastes currently being incorrectly categorized:

“In order to ensure that radioactive waste is dispositioned in a safe and efficient manner and to ensure the protection of the public, workers and the environment, DOE shall consider the radiological characteristics of wastes resulting from the reprocessing of spent nuclear fuel as provided for in the statutory definition of high-level waste section 2(12) of the Nuclear Waste Policy Act. Regardless of origin or previous categorization, some reprocessing wastes shall be managed, treated and disposed of as other than high-level waste, i.e., as low-level waste, mixed low-level waste, or transuranic waste, in accordance with its radiological characteristics.”



SEC. 3139. EVALUATION OF CLASSIFICATION OF CERTAIN DEFENSE NUCLEAR WASTE

The Secretary of Energy shall conduct an evaluation of the feasibility, costs, and cost savings of classifying covered defense nuclear waste as other than high-level radioactive waste, without decreasing environmental, health, or public safety requirements.

In conducting the evaluation, the Secretary shall consider

- (1) the estimated quantities and locations of covered defense nuclear waste;
- (2) the potential disposal paths for such waste;
- (3) the estimated disposal timeline for such waste;
- (4) the estimated costs for disposal of such waste, and potential cost savings;
- (5) the potential effect on existing consent orders, permits, and agreements;
- (6) the basis by which the Secretary would make a decision on reclassification of such waste; and
- (7) any such other matters relating to defense nuclear waste or other reprocessing waste that the Secretary determines appropriate.

The report was due to Congress by February 1, 2018.

