CONSORTIA INTERIM PROGRESS REPORTS

Rensselaer Polytechnic Institute









COLLABORATIVE PARADIGM FOR COMMUNITY ENGAGEMENT

Consent-based Siting Consortia – Quarterly Meeting #4 May 22 and 23, 2024







Overall Project Progress



- Ahead or On Track for all project tasks
- Modifications from original project plan as submitted in the consortium's application:
 - Schedule: Milestone Dates shifted 1-for-1 to align actual and anticipated start dates
 - Anticipated Start: 5/1/23
 - Actual Start: 9/20/23
 - All dates shifted 4 months and 20 days
 - Tribal Nations identified as potentially affected by our consortium strategy
 - Original: Stockbridge-Munsee, Yankton Sioux, Cheyenne River Sioux, Shoshone-Bannock, Prairie Island Indian Community, Yakama Nation
 - Updated: Stockbridge-Munsee Community Band of Mohican Indians, Seneca Nation, Navajo Nation

	Milestone Log					
Milestone Identification Number	Milestone Description	Planned Completion Date	Current Progress or Actual Completion Date			
M1	Initiate best practices & lessons learned: recruiting community members for dialogue.	12/19/2023	Complete			
M2	Generate best practices & lessons learned: community engagement session planning.	6/19/2025	In Progress			
М3	Develop interactive and immerse visualizations of nuclear waste issues in community.	3/19/2025	In Progress			
M4	Systematically elicit, gather, and understand community needs through value mapping.	6/19/2024	In Progress			
M5	Develop community-centered and nuclear waste science fundamentals learning modules.	9/19/2024	In Progress			
M6	Compile and analyze community feedback: program summary.	9/19/2025	Pending			







Key Developments

- Many Engagement Activities were completed and planned: (for details, see Slide 5: Engagement). Highlights: Texas, CSX, Tribal Citizens
- Development of **CBS Learning Modules** in good progress. They will have a small-scale test run during *STEAMM Inventor's Studio Summer Program*¹, 7/8-7/19/2024, then a full demonstration during *PREFACE*² 7/28-8/10/2024.
- Development of Transportation Related Models in good progress. We are currently exploring methods to quantify the consequence of accident scenarios.
 - Key Focus: Route Optimization Process Development

- 1- STEAMM Inventor's Studio: https://summer.rpi.edu/programs/steamm-inventors-studio-july-8-19-2024
- 2 PREFACE: https://info.rpi.edu/pre-college-initiatives/preface-2024-rensselaer-summer-engineering-design-program





Key Observations*

- Cautious Optimism (for research & new tech), Concerns about Weapons Proliferation & Safety
 - Younger generation open to nuclear, susceptible to legacy "anti- vs. pro-" polarization due to unfamiliarity
 - "I was excited about nuclear until I started doing my own research. Now I'm scared" RPI Enrichment Seminar
 - "There is so much energy here, we have to build [new nuclear] plants" Chem. Eng. undergrad exploring SNF constituents
 - Unbalanced approach to engagement may induce additional "Anti- vs. Pro" tribalism
 - Holistic framing of nuclear waste, including challenges & opportunities, produces follow-on discussions
 - Soliciting input regarding "Consolidated Interim Storage only" results in abrupt ending of conversations
 - Framing the current SNF situation as a part of a larger problem to be solved results in ongoing dialogue
 - Ex: Uranium Mining, Depleted Uranium Inventory, SNF Energy Content, Light Water Reactor Alternatives
 - People want information, not just a "Yes" or "No" vote on Interim Storage
 - Favorable responses to rad waste accident alert system proposal (Amber Alert style notification w/guidelines for safety)
 - Transportation modeling of atypical scenarios is of specific interest
 - Safety is a subjective term; "SNF is environmentally segregated and securely packaged" is preferred language
 - Recommend avoiding the use of "safety" as a descriptor; Consent regarding "safe" as a general concept is problematic
 - I know I am a safe driver; I am still struggling to convince my wife due to the subjective nature of safety as a concept

*IRB approval received late in Q1 '24. Future observations will include specific feedback from engaged persons



Engagement



- Prior Engagement Highlight: Tribal Citizen Engagement (Direct & Indirect)
 - Direct: Indigenous Consultant (Navajo Citizen) co-wrote adjacent grant proposal w/RPI Consortium
 - Proposal writing process very informative regarding Tribal concerns. Not selected for full application
 - Indirect: RPI Consortium Member that has broad Tribal Citizen network provided many insights
 - Immediate needs are of greater interest and significance than long term planning
 - · Roof repair, education (formal and off-res experience) opportunities, disappearing language & culture
 - Lesson Learned: Gift cards to pay attendees is best for program administrators, not necessarily best for attendees
- Pending Engagement Highlights: Texas (Communities and State Employees) & CSX (Rail Owner)
 - **Texas**: Facilitation Consultant for RPI Consortium identified commonality between DOE CBS process development and Texas Department of Transportation (TxDOT) <u>Strategic Public Engagement Guidance</u>
 - Collaborative Process Development: Communities interested in disrupting legacy of new roads built using eminent domain and other methods that exploit minority populations collaborated with TxDOT to develop a <u>Strategic Public Engagement Guidance Report.</u> State (TxDOT) developed a suite of best practices and resources by forming internal workshops, gathering input from other states, and achieving statistically valid participation from racial minorities (Hispanic, Black/African-American/Asian), people with disabilities, people from low-income households, and seniors
 - The upcoming <u>Aya Symposium</u> will serve as a networking opportunity to explore potential CBS collaboration(s)
 - CSX: RPI Consortium Thought Experiment: "What is the 1st SNF Cask we would propose be moved, and where would we advocate sending it?"
 - CSX is the major rail operator in Collaborative Paradigm Area of Engagement. Initial discussion with Fleet Manager to understand their process. Anticipating additional dialogue regarding polices, procedures, experience, expectations, etc.



Engagement Details - Completed



What is the engagement?	Date	Location	Brief description (if not in previous slides)	# of Participants
Planning Sessions for area of engagement	Feb – Mar	Schenectady, NY (Google Meet)	Series of meetings to plan movie screening for local high school CE ¹	8
Movie Screening	3/20/24	Proctors, SCH, NY	Oppenheimer, context, & interest survey	~275
Public Debate	4/11/24	Vasudha, Troy, NY	Upper Hudson Peace Action & RPI Sunrise Movement chapter: Nuclear Power's Role In a Changing Climate	~20
Strategy Session (SCH ²)	3/20/24	Ferrari's, SCH, NY	Intro. discussion w/ SCH Planner	4
Strategy Session (TRMTC³)	3/29/24	Microsoft Teams	Review of RPI TE ⁴ Strategy	4
Introductory Discussion	4/24/24	Austin, TX (via Webex)	TxDOT ⁵ Public Engagement Guide	4
Strategy Session (Navajo)	Jan – Apr	New Mexico (via Webex & phone)	TE w/ Navajo Citizen as Consultant	1-on-1
Transportation Logistics Learning w/Fleet Manager	5/11/24	Jacksonville, FL (via phone call)	General overview of SNF Transport Route Optimization; logistics Q&A	1-on-1



<u>Notes</u>

- 1 Community Engagement
- 3 Tribal Radioactive Materials Transportation Committee
- 5 Texas Department of Transportation

- 2 Schenectady, New York
- 4 Tribal Engagement

Engagement Details - Planned

	U.S. DEPARTMENT OF ENERGY
XX	OF ENERGY

What is the engagement?	Date	Location	Brief description (if not in previous slides)	Participants
<u>IISE Conference</u>	5/18 – 5/21	Montreal, Canada	Pres. – Modeling Transport Risk for SNF	TBD
<u>Aya Symposium</u>	6/6	Dallas, Texas	Networking w/TxDOT et. al. for SNF Transport Modeling	TBD
<u>USSEE Conference</u>	6/6 – 6/9	Schenectady, NY	Panel Session – "Nuclear Tech. as a Nexus of Gov't, Ind., Acad. and Comm. Collab."	TBD
<u>STEAMM Inventor's Studio</u>	7/8 – 7/19	Troy, NY	2-4 hour Exp.	45
EASST-4s 2024	7/16 – 7/19	Amsterdam, Neth.	Pres. – "Dev. a Collab. Paradigm for Engagement:"	TBD
The New York State Fair	8/21 –9/2	Syracuse, NY	Sponsoring demonstrations of our CBS efforts	TBD
ASA Annual Meeting	11/14 – 11/17	Baltimore, MD	Pres. – "Engaging Contexts"	TBD
<u>PREFACE</u>	7/28 – 8/10	Troy, NY	2-week In-Residence Exp.	~35
Debate Series Cont.	TBD	Troy, NY	Proliferation & Sustainability	TBD
SCH Engagement Cont.	~Jul.	Schenectady, NY	Technology & Social Impact	TBD
CSX	TBD	East Coast	SNF Route Optimization Process Development	TBD





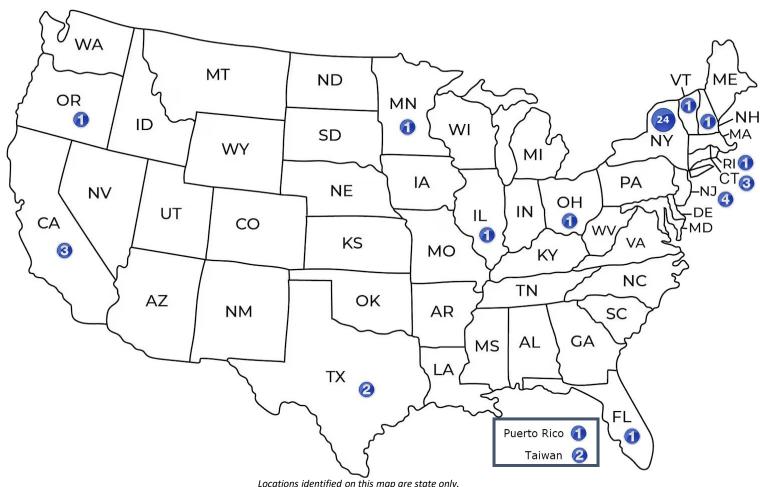


Accepted Attendee Representation

- √ 34 In 6 Consortia States
- √ 11 In 8 Non-Consortia U.S. Territories
- ✓ 2 International Attendees
- □ Demographic info can be shared after session complete

Please reach out if interested in:

- RPI sharing your Consortium info with attendees
- ➤ Learning more about STEAMM or PREFACE (2025 sessions possible)
- Incorporating topics / curricula / concepts in STEAMM or PREFACE
- ➤ Contact Jim Olson: olsonj7@rpi.edu





Locations identified on this map are state only.

Attendee Personal geographic areas are not represented

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For questions or comments related to this consortium, please contact:

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For more information, visit us at energy.gov/consentbasedsiting



