

DOE Nuclear Energy Advisory Committee

Advanced Reactor Pipeline Subcommittee

Initial Report

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Agenda – Nov. 9, 2018 Meeting, DOE HQ

- Charter
- GAIN
- Developing a Nuclear Narrative
- Radiation Protection Standards
- Advanced Reactor community Input

Advanced Reactor Pipeline Subcommittee Charter

- The question:
 - Took issue with the word “establish” rather than the verb “enable”
 - Would like to drop “pipeline” from the title
- The answer:
 - **Enable a pipeline to develop from the private commercial advanced reactor industry in conjunction with and support of the DOE, NRC, and other relevant bodies.**
- Action: Mr. Williams, DOE, was to take this input and work up a revised charter.

GAIN

- GAIN is three years old, successful by nearly every measure with broad industry engagement
- GAIN: financing risk acknowledged as a key risk
- Subcommittee agrees re financing risk is a key risk
- To work with GAIN and the NEI (Maria Korsnick, CEO) to develop a program introducing the financial community to Advanced Reactor and related companies
 - Due diligence standards & processes

The Nuclear Narrative

- Nuclear energy lacks a narrative which the general public understands, embraces, and promotes
- Larger problem, well beyond this subcommittee or even NEAC, to resolve
- Requires political support at all levels and organization, Congress, DOE, developers, financial
- This could be the single most powerful output in the next short while as it touches GAIN, the finance risks, siting of new reactors, etc.
- No specific recommendation: [a working group]

Radiation Protection Standards

- Regulations are derived from long established radiation protection standards
- Radiation protection standards are based on – LNT (linear no threshold),
An outdated standard, not necessarily scientifically based
- Existing Fleet chair Lyons weighed in and shared their views
 - The need for scientifically credible radiation dose standards underpins nuclear medicine, the nuclear navy, the commercial nuclear industry, our national laboratories involved in the weapons programs, and our environmental cleanup programs. (Existing Fleet report)
- Scientifically RPS has ramifications across all elements of the nuclear enterprise – navy, power generation, medicine, simply everywhere
- DOE should embrace, support, and execute
- H.R. 589 a huge win (Engaging DOE Office of Science)

Advanced Reactor Community Topics

- Many topics were surfaced, discussed
 - Fuel, data, test reactor, financial wherewithal, materials science, USG deployment, licensing, public-private partnerships
 - Much interaction post meeting on email about these topics
- Prioritization important given the breadth of topics and available resources to prosecute solutions
- More dissemination of information previously developed, discussed, and summarized

Conclusion and Discussion

- The subcommittee charter requires revision, possibly more focus
- The subcommittee encourages NEAC to discuss prioritization of the many topics surfaced by the subcommittee
 - Policy, regulatory, technology, and finance are all key areas of interest for industry and therefore subcommittee
- There is some overlap with GAIN activities
 - Partner with GAIN to address financial concerns to the industry
 - Support GAIN by understanding their portfolio needs

Many Thanks – The Advanced Reactor Pipeline Subcommittee

- Ray Rothrock (Co-chair)
- Brein Sheahan (Co-chair)
- David Blee
- Dana Christensen
- Caroline Cochran
- Jay Faison
- Steve Kuczynski