

March 19th 2025 1:00pm Board Minutes

The lab board meeting began with the approval of the previous meeting minutes, noting a late public notice. Jeremy presented the \$16 million Seerstone proposal for advanced high-purity carbon products from carbon dioxide, which involves three reactors for production of electrodes for Nucor electric arc furnace steel recycling. The project could synergize with the NuSano HALEU (High Assay Low Enriched Uranium) application and TRISO fuel production for advanced reactors. The board approved the Seerstone proposal. Cristian and Lorin from NuCube Energy presented their high-temperature reactor technology, emphasizing its efficiency and safety. The board approved the NuCube MOU, addressing previous concerns about exclusivity. The meeting concluded with a discussion on future approval processes and policies.

Attendees:

- Andrew Fry (Board Member)
- Cristian Rabiti
- Emy Lesofski (Board Member)
- Geri Gamber
- Jade Powell
- Jake Garfield
- Jefferson Moss (Board Member)
- Jeremy Pearson
- Joe Ross
- John Moorehead (Board Member)
- Keith Heaton
- Laren Huntsman (Board Member)
- Lorin Young
- Marian Rice

1. Call to Order

- Emy Lesofski called the meeting to order.

2. Approval of Minutes

- Emy Lesofski asked for discussion regarding the minutes from the last board meeting.
- Laren Huntsman moved to approve the minutes.
- Jefferson Moss seconded the motion.
- Jeremy Pearson stated that Steve had concerns with the public notice not being sent out within the 24-hour requirement.
 - Steve wanted a recorded objection.
 - It was determined that the meeting could proceed, but the issue would be noted in the minutes.
- Jake Garfield confirmed that it was okay to proceed with the meeting if the error was noted in the minutes and a commitment to correct the error was made.
- Laren Huntsman inquired about voting on items. Jake Garfield confirmed they were okay to vote.

- Emy Lesofski noted that Joe Finley (AG's office) was unavailable, and Jake Garfield (legal counsel) was stepping in.
- **Motion:** To approve the minutes from the last meeting.
 - Moved by: Laren Huntsman
 - Seconded by: Jefferson Moss
 - Vote: Approved (Note: Steve's objection regarding public notice to be recorded in the minutes)

3. Seerstone Proposal Presentation

- Jeremy Pearson provided a follow-up presentation on the Seerstone proposal.
 - The Seerstone project is a \$16 million award from the Department of Energy for advanced high purity carbon from carbon dioxide.
 - Seerstone wants to bring reactors to the center for testing.
 - The project is to make electrodes for Nucor for arc furnace steel recycling.
 - Three reactors would be brought to the center to create carbon products for electrodes, which would then go to Nucor for testing.
 - Jeremy Pearson highlighted the potential synergy between this project and the Nusano and HALEU application regarding TRISO nuclear fuel.
 - The proposal application document was distributed with details.
- Andrew Fry added that this is a significant project with a large budget and will have a significant impact on the facility.
 - There are impacts on space, utilities, and facility use, but these have been addressed.
 - Jeremy Pearson stated that they reviewed how to fit this into the new building and not disrupt infrastructure for future projects. This will be taken into account in contracting.
- Laren Huntsman clarified the location of the project to be the new building.
- **Motion:** To approve the Seerstone application.
 - Moved by: Emy Lesofski
 - Seconded by: Andrew Fry
 - Vote: With no objection, considered the motion passed (but vote will be reheld in next board meeting due to public notice not being sent out prior to 24-hr window)

4. NuCube MOU Discussion

- Jeremy Pearson introduced the discussion on the NuCube MOU.
 - Idaho National Lab (INL) works to decarbonize industry (fertilizer, iron, steel, etc.).
 - The center could take a complimentary role in advancing this technology.
 - INL introduced the center to NuCube Energy, which specializes in high-temperature reactor operation.
 - The STTR application would build a reactor useful for harvesting heat and transferring it to an industrial project or electrical application.
 - Funding from the Department of Energy could be used to acquire an induction furnace in Provo for prototyping with NuCube's heat exchanger.
 - There is potential for future collaboration, including bringing a NuCube test reactor to the center.

- NuCube has written an MOU to reflect the interest and opportunity to work together.
 - A section of the MOU was modified with input from Joe Finley (legal).
- Emy Lesofski invited NuCube to provide background information.
- Cristian Rabiti (NuCube) provided background on the company.
 - The company was started by Bill Gross (chairman of Idealab).
 - The technology is a new reactor concept using TRISO fuel and high-temperature alloy.
 - They are focused on the need for power (electricity and heat).
 - Idealab background was provided.
 - Key personnel backgrounds were given (Cristian Rabiti, Lorin Young, Mitch, Andrea, and Kais).
 - TRISO fuel was described.
 - APMT (superalloy) material for heat pipes was discussed.
 - Reactor design overview was provided (graphite block with fuel and heat pipes).
 - Reactor size and fuel information were given.
 - Safety features were highlighted (passively safe, self-stabilizing).
 - Environmental considerations were discussed (transportable core tank, underground container, removable).
 - Current activities with the center were noted (DOE GAIN voucher, SBIR).
 - Synergies between NuCube and the center were highlighted (high temperature, super critical CO₂).
 - Potential applications for the technology were listed (methane pyrolysis, hydrocarbon steam cracking).
 - The goal is to make the reactor operational before 2030 and explore siting a demo at the center.
- Emy Lesofski thanked them for the presentation.
- Andrew Fry stated that he has been working with NuCube and supports bringing them to the facility. His concern about exclusivity in the MOU has been addressed.
- Laren Huntsman asked Jake Garfield if legal had reviewed and approved the MOU. Emy Lesofski clarified that Joe Finley (AG's office) reviewed and approved it.
- **Motion:** To support the NuCube proposal.
 - Moved by: Emy Lesofski
 - Seconded by: Andrew Fry
 - Voice Vote: Approved (However vote will be reheld in next board meeting due to public notice not being sent out prior to 24-hr window)

5. Approval of Seerstone Proposal (Official Vote)

- Emy Lesofski made a motion to approve the Seerstone proposal by voice vote.
- **Motion:** To approve the Seerstone proposal.
 - Moved by: Emy Lesofski
 - Seconded by: Andrew Fry
 - Voice Vote: Approved, John Moorehead abstained from the vote. (but vote will be reheld in next board meeting due to public notice not being sent out prior to 24-hr window)

6. Discussion of Approval Processes

- Jeremy Pearson raised the topic of discussing approval processes, specifically regarding letters of intent and concept papers.
- Emy Lesofski suggested holding the discussion until a more comprehensive plan for policies and procedures could be developed.
- Andrew Fry agreed that a more detailed discussion about policies and procedures should be held offline, with specific proposals brought to the group later.

7. Public Comment

- Emy Lesofski asked if there were any public comments.
- There were none.

8. Adjournment

- Emy Lesofski thanked the board members and NuCube.
- Jefferson Moss made a motion to adjourn.
- Andrew Fry seconded the motion.
- **Motion:** To adjourn.
 - Moved by: Jefferson Moss
 - Seconded by: Andrew Fry
 - Vote: Approved

9. Meeting Adjourned.