

## *Fission Battery Initiative Workshop Series – Siting and Transportation*

*Monday, March 15, 2021*

*12:00 p.m. – 5:00 p.m. (Eastern Time)*

### **Fission Battery Initiative Workshop Series**

Transportation and Siting for Fission Batteries

**Moderators: Elmar Eidelpes  
Abhinav Gupta  
Abdollah Shafieezadeh  
Chandrakanth Bolisetti**

**The initiative envisions** *developing technologies that enable nuclear reactor systems to function as batteries and to be referred as fission batteries.*

The workshop today will discuss siting and transportation of fission batteries. This will include conversations on topics such as connections to spent nuclear fuel management practices, site-independent fission battery deployment, and critical regulatory challenges, among others.

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The goals of this Workshop are to:

- Initiate a conversation on potential issues and hurdles related to fission battery transportation and siting.
  - Promote the identification of research and development needs to support fission battery siting and transportation.
  - Foster community building and provide an opportunity to share the current state of understanding on fission batteries among the various stakeholders.
  - Identify the potential needs of these stakeholders in order to make fission batteries a reality.
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## **Speakers and Panelists:**

Vivek Agarwal  
Idaho National Laboratory

Alan Wells  
Private Consultant

Sylvia Saltzstein  
Sandia National Laboratory

David Pstrak  
U.S. Nuclear Regulatory Commission

Bob Schaaf  
U.S. Nuclear Regulatory Commission

Emma Redfoot  
OKLO Inc.

Abhinav Gupta  
North Carolina State University

George Griffith  
Idaho National Laboratory

Bernie White  
U.S. Nuclear Regulatory Commission



## Introduction

Topics: The fission battery Initiative will be introduced to the audience and the vision “Fission Battery” will be defined.

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|--------------|---------------------------------|---|
| 12:00 -12:05 | Welcome .....                   | Elmar Eidelpes<br>Idaho National Laboratory |
| 12:05 –12:20 | Fission Battery Initiative..... | Vivek Agarwal<br>Idaho National Laboratory  |

## Session 1: Lessons Learned from Waste Management (Session Chair: Elmar Eidelpes, INL)

Topics: Insights in spent nuclear fuel management practices will be discussed and the connection to fission battery siting and transportation will be established.

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|-------------|--|---|
| 12:20–12:40 | Transportation Issues – Fission Batteries .....                    | Alan Wells<br>Private Consultant                |
| 12:40-1:00  | DOE Nuclear Waste Management Transportation and Handling Tests.... | Sylvia Saltzstein<br>Sandia National Laboratory |

## Session 2: Regulatory Perspective (Session Chair: Abhinav Gupta, NCSU)

Topics: The perspective of the U.S. regulator on fission battery transportation and siting will be addressed.

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|-------------|---|--|
| 1:10 -1:30  | Transportation of Radioactive Material.....                           | David Pstrak<br>U.S. Nuclear Regulatory Commission |
| 1:30-1:50   | Modernizing the Regulatory Framework for Advanced Reactor Siting..... | Bob Schaaf<br>U.S. Nuclear Regulatory Commission   |
| 1:50 – 2:30 | Break   |  |

## Session 3: Industry and Other Stakeholder Perspectives (Session Chair: Abdollah Shafieezadeh, OSU)

Topics: This session focuses on the perspective of industry and other stakeholder representatives on fission battery transportation and siting, and questions related to advanced reactor development and licensing.

2:30-2:50	Flexible Siting .....	Emma Redfoot Oklo Inc.
2:50-3:10	Technological Innovations in Management of Transportation: Advances in Visual Sensing	Abhinav Gupta North Carolina State University
3:10-3:30	Issues in Commercial Reactor Siting .....	George Griffith Idaho National Laboratory

## Panel Discussion (Moderator: Chandrakanth Boliseti, INL)

Topics: A 60 min moderated panel discussion will be held to discuss the key takeaways and roadblocks identified within this workshop. A 15 min Q & A session will provide the audience with the opportunity to interact with the panel.

3:40-4:55 Panel Discussion and Q & A

Panel Members:

- Emma Redfoot, Oklo Inc.
- Alan Wells, Private Consultant
- Bernie White, U.S. Nuclear Regulatory Commission
- George Griffith, Idaho National Laboratory

4:55-5:00	Closing Remarks .....	Abdollah Shafieezadeh Oregon State University
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