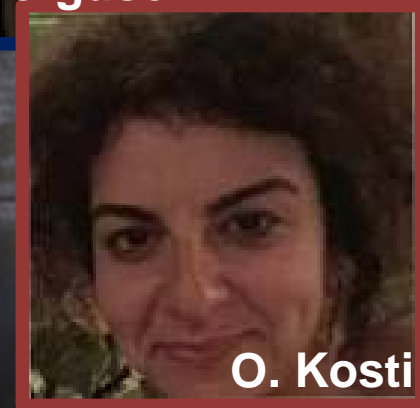


# Radioactive Sources: Applications and Alternative Technologies





Committee Meeting #2  
April 29 2020

*The National Academies of*  
SCIENCES • ENGINEERING • MEDICINE

# WELCOME!



# WEBEX GROUND RULES

- Mute your **audio**  and turn off your **camera** 
- Q+A is for Academies committee and staff members only to ask questions to the presenters
- Committee members **raise your hand**   
if you want to ask a question; state your name first
- We will not be entertaining questions or comments from the audience through the chat function 
- Connectivity issues? Send a message via the chat function or by email ([mfranks@nas.edu](mailto:mfranks@nas.edu)) to Melissa Franks

# COMMITTEE MEMBERSHIP

**Bonnie D. Jenkins** (Committee Chair)

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**Robert A. Bari**

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**Deborah W. Bruner**

Emory University

**Hubert K. Foy**

African Center for Science and International  
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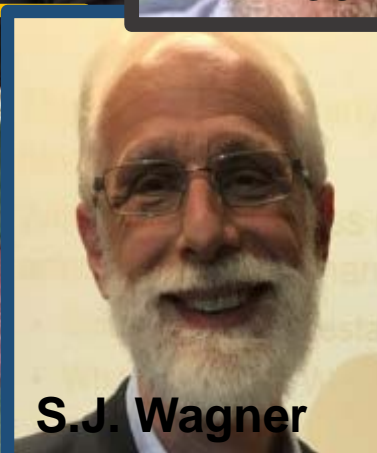
**L. A. Kroger**



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**D.L. Weimer**



**M.O.  
McWilliams**



**J.A. Williamson**

## QUESTIONS, COMMENTS, OR SUGGESTIONS?

Please contact us:

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If you would like to be added on the board's listserv and receive updates, send us an email at [nrsb@nas.edu](mailto:nrsb@nas.edu)

# Radioactive Sources: Applications and Alternative Technologies

Bonnie D. Jenkins, *Chair*

Committee Meeting #2

April 29-30, 2020

*The National Academies of*  
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# STATEMENT OF TASK

The National Academies will appoint an ad hoc committee of experts to carry out principal tasks

- to **review** (using the 2008 National Academies report “Radiation Source: Use and Replacement” as a baseline) the **current industrial, research, and commercial (including medical) applications of** radioactive sources, including **Categories 1, 2, and 3 sources** as defined by the International Atomic Energy Agency's “Categorization of Radioactive Sources,” IAEA-TECDOC-1344; and
- to **identify uses** for which a radioactive source can be replaced with an equivalent (or improved) **non-radioisotope alternative technologies** that are **already available** in the market and could **become available** in the market as next-generation or emerging technologies in the next 10 years, and assess applications for which alternative technologies **do not currently exist**, but which could significantly mitigate the risk associated with current technologies using high-risk radionuclides.



# STATEMENT OF TASK (cont.)

The assessment will examine **domestic and international** developments in radioactive source applications and feasible alternative technologies. In addition, the assessment will use criteria to assess the overall technical feasibility and maturity of those technologies, including the Department of Energy Technology Readiness Level (TRL). Moreover, the assessment of alternative technologies will evaluate their attractiveness and practicality to organizations in consideration of adopting or transitioning to them.

# STUDY SCHEDULE



## Meeting #2 Goals

- To receive information from Sandia National Laboratories and Los Alamos National Laboratory on the statement of task
- Deliberate in closed session how to tackle the statement of task