



# NCSP Nuclear Data Advisory Group (NDAG) Report

A.C.(Skip) Kahler  
NDAG Chair

NCSP Technical Program Review Meeting  
Lawrence Livermore National Laboratory  
March 18-19, 2015

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# Abstract

We review Nuclear Data Advisory Group activities during FY14.

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# Outline

- NDAG Mission and Objectives
- Charter and Membership
- Review of Nuclear Data Work Plan

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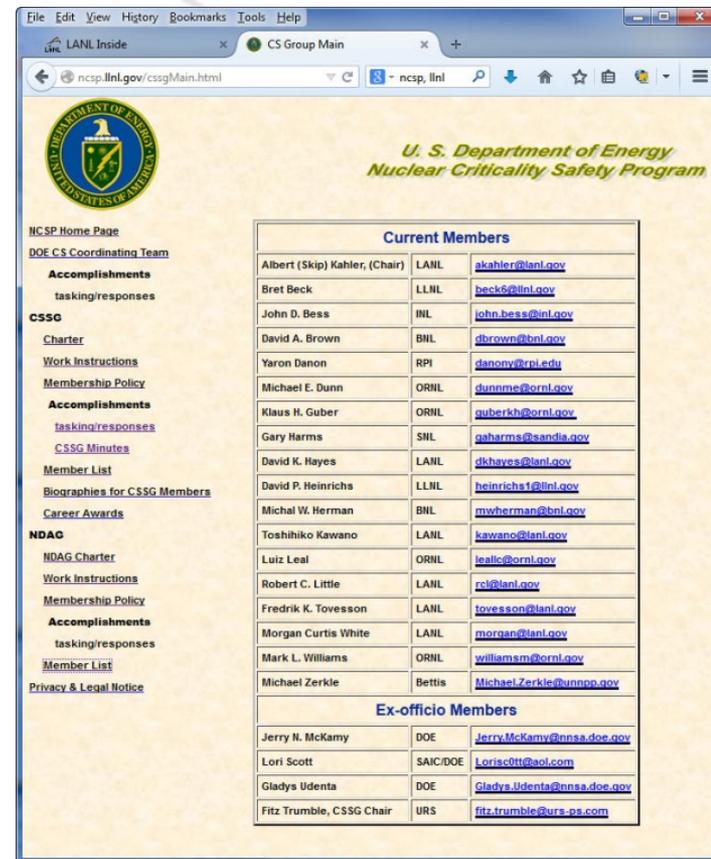
# Nuclear Data Advisory Group

- **Mission:** “The Nuclear Data Advisory Group (NDAG), through recommendations to the NCSP Manager, enhances the coordination of the NCSP Nuclear Data Element work program with current and future DOE needs and promotes the integration of this work program with the other elements of the NCSP.” – NDAG Charter, July 2014
- **Key Functions:** (paraphrased from the NDAG Charter, July 2014)
  - Identify deficiencies in evaluated differential and integral nuclear data and recommend priorities and specific resources for meeting identified NCS needs;
  - Communicate and work with the other DOE Programs, the various NCSP Program Elements, the National Nuclear Data Center, the Cross Section Evaluation Working Group (CSEWG), the Working Party on International Evaluation Cooperation (WPEC) of the OECD/NEA Nuclear Science Committee;
  - Evaluates and determines high-level concerns for immediate or short-term attention and/or correction and communicates these concerns to the NCSP Manager;
  - Supports the NCSP Manager in approval of Integral Experiment Requests (IER) and Nuclear Data Requests (NDR).

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# Nuclear Data Advisory Group

- Membership Changes:
  - New Chair (3-year term)
    - Skip Kahler (LANL)
  - Newly elected:
    - Bret Beck (LLNL)
    - John Bess (INL)
    - Gary Harms (SNL)
    - Morgan White (LANL)
  - Retired/resigned
    - Blair Briggs (INL)
    - Norm Schwerts (SNL)



The screenshot shows a web browser window displaying the 'Current Members' page of the Nuclear Data Advisory Group. The page includes a navigation menu on the left and a table of members on the right. The table lists the name, affiliation, and email address for each member.

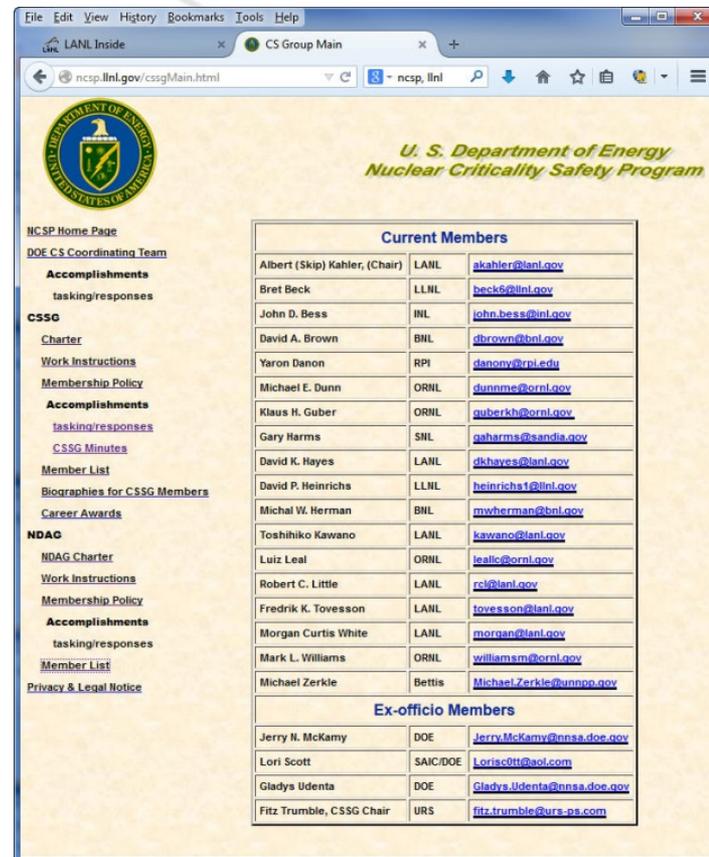
Current Members		
Albert (Skip) Kahler, (Chair)	LANL	<a href="mailto:skahler@lanl.gov">skahler@lanl.gov</a>
Bret Beck	LLNL	<a href="mailto:beckb@llnl.gov">beckb@llnl.gov</a>
John D. Bess	INL	<a href="mailto:john.bess@inl.gov">john.bess@inl.gov</a>
David A. Brown	BNL	<a href="mailto:dbrown@bnl.gov">dbrown@bnl.gov</a>
Yaron Danon	RPI	<a href="mailto:danony@rpi.edu">danony@rpi.edu</a>
Michael E. Dunn	ORNL	<a href="mailto:dunnme@ornl.gov">dunnme@ornl.gov</a>
Klaus H. Guber	ORNL	<a href="mailto:guberkh@ornl.gov">guberkh@ornl.gov</a>
Gary Harms	SNL	<a href="mailto:gaharms@sandia.gov">gaharms@sandia.gov</a>
David K. Hayes	LANL	<a href="mailto:dkhayes@lanl.gov">dkhayes@lanl.gov</a>
David P. Heinrichs	LLNL	<a href="mailto:heinrichs1@llnl.gov">heinrichs1@llnl.gov</a>
Michal W. Herman	BNL	<a href="mailto:mwherman@bnl.gov">mwherman@bnl.gov</a>
Toshihiko Kawano	LANL	<a href="mailto:kawano@lanl.gov">kawano@lanl.gov</a>
Luiz Leal	ORNL	<a href="mailto:leal@ornl.gov">leal@ornl.gov</a>
Robert C. Little	LANL	<a href="mailto:rc1@lanl.gov">rc1@lanl.gov</a>
Fredrik K. Tovesson	LANL	<a href="mailto:tovesson@lanl.gov">tovesson@lanl.gov</a>
Morgan Curtis White	LANL	<a href="mailto:morgan@lanl.gov">morgan@lanl.gov</a>
Mark L. Williams	ORNL	<a href="mailto:williamsm@ornl.gov">williamsm@ornl.gov</a>
Michael Zerkle	Bettis	<a href="mailto:Michael.Zerkle@unmop.gov">Michael.Zerkle@unmop.gov</a>
Ex-officio Members		
Jerry N. McKamy	DOE	<a href="mailto:Jerry.McKamy@nnsa.doe.gov">Jerry.McKamy@nnsa.doe.gov</a>
Lori Scott	SAIC/DOE	<a href="mailto:LorisCott@aol.com">LorisCott@aol.com</a>
Gladys Udentia	DOE	<a href="mailto:Gladys.Udentia@nnsa.doe.gov">Gladys.Udentia@nnsa.doe.gov</a>
Fitz Trumble, CSSG Chair	URS	<a href="mailto:fitz.trumble@urs-ps.com">fitz.trumble@urs-ps.com</a>

*2014 was a year of change ... we acknowledge and thank Mike Dunn for his leadership during this transition.*

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# Nuclear Data Advisory Group

- Membership Changes (con't):
  - Current membership includes 18 members.
  - Charter allows up to 20 members.
  - Currently there are no plans to fill these open positions.



The screenshot shows a web browser window displaying the "CS Group Main" page. The page header includes the U.S. Department of Energy Nuclear Criticality Safety Program logo and name. The main content area is titled "Current Members" and contains a table with the following data:

Current Members		
Albert (Skip) Kahler, (Chair)	LANL	<a href="mailto:skahler@lanl.gov">skahler@lanl.gov</a>
Bret Beck	LLNL	<a href="mailto:beck6@llnl.gov">beck6@llnl.gov</a>
John D. Bess	INL	<a href="mailto:john.bess@inl.gov">john.bess@inl.gov</a>
David A. Brown	BNL	<a href="mailto:dbrown@bnl.gov">dbrown@bnl.gov</a>
Yaron Danon	RPI	<a href="mailto:danony@rpi.edu">danony@rpi.edu</a>
Michael E. Dunn	ORNL	<a href="mailto:dunnme@ornl.gov">dunnme@ornl.gov</a>
Klaus H. Guber	ORNL	<a href="mailto:guberkh@ornl.gov">guberkh@ornl.gov</a>
Gary Harms	SNL	<a href="mailto:gaharms@sandia.gov">gaharms@sandia.gov</a>
David K. Hayes	LANL	<a href="mailto:dkhayes@lanl.gov">dkhayes@lanl.gov</a>
David P. Heinrichs	LLNL	<a href="mailto:heinrichs1@llnl.gov">heinrichs1@llnl.gov</a>
Michal W. Herman	BNL	<a href="mailto:mwherman@bnl.gov">mwherman@bnl.gov</a>
Toshihiko Kawano	LANL	<a href="mailto:kawano@lanl.gov">kawano@lanl.gov</a>
Luiz Leal	ORNL	<a href="mailto:leal@ornl.gov">leal@ornl.gov</a>
Robert C. Little	LANL	<a href="mailto:rc1@lanl.gov">rc1@lanl.gov</a>
Fredrik K. Tovesson	LANL	<a href="mailto:tovesson@lanl.gov">tovesson@lanl.gov</a>
Morgan Curtis White	LANL	<a href="mailto:morgan@lanl.gov">morgan@lanl.gov</a>
Mark L. Williams	ORNL	<a href="mailto:williamsm@ornl.gov">williamsm@ornl.gov</a>
Michael Zerkle	Bettis	<a href="mailto:Michael.Zerkle@unmop.gov">Michael.Zerkle@unmop.gov</a>

Ex-officio Members		
Jerry N. McKamy	DOE	<a href="mailto:Jerry.McKamy@nnsa.doe.gov">Jerry.McKamy@nnsa.doe.gov</a>
Lori Scott	SAIC/DOE	<a href="mailto:LorisCott@aol.com">LorisCott@aol.com</a>
Gladys Udentia	DOE	<a href="mailto:Gladys.Udentia@nnsa.doe.gov">Gladys.Udentia@nnsa.doe.gov</a>
Fitz Trumble, CSSG Chair	URS	<a href="mailto:fitz.trumble@urs-ps.com">fitz.trumble@urs-ps.com</a>

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# Nuclear Data Advisory Group

Updated version of 5-Year Plan Appendix B Evaluation List, with potential post-Meeting nuclides:

	Materials	Pre-FY2014	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	Post-FY2020
Complete Evaluations	Calcium (Ca)									
	Cerium (Ce)									
	Cobalt (Co)									
	Copper (Cu)									
	Dysprosium (Dy)									
	Gadolinium (Gd)									
	Iron (Fe)									
	<b>Lead (Pb)</b>									
	Nickel (Ni)									
	Oxygen (O)									
	Rhodium (Rh)									
	Plutonium-239									
	<b>Strontium (Sr)</b>									
	<b>Tantalum (Ta)</b>									
	Tungsten (W)									
	<b>Tungsten (<sup>184</sup>W)</b>									
	<b>Uranium-233</b>									
	Uranium-235									
	Uranium-238									
	Vanadium (V)									
Zirconium (Zr)										
Hydrofluoric Acid (HF)										
Lucite (C <sub>5</sub> O <sub>2</sub> H <sub>8</sub> )										
Polyethylene (CH <sub>2</sub> )										
		ORNL		RPI		LANL		LLNL/NCSU		

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NCSP Five Year Execution Plan, FY2015-FY2019 ... Appendix B Measurements

	<i>Materials</i>	Pre-FY2014	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	Post-FY2020
<b>Measurements</b>	Calcium (Ca)									
	Cerium (Ce)									
	Copper (Cu)									
	Iron (Fe)									
	Lucite (C <sub>5</sub> O <sub>2</sub> H <sub>8</sub> )									
	<b>Strontium (Sr)</b>									
	Tungsten (W)									
	Vanadium (V)									
	Zirconium (Zr)									
	Polyethylene (CH <sub>2</sub> )			H <sub>2</sub> O / CH <sub>2</sub>						
		ORNL		RPI		LANL		LLNL/NCSU		

The nuclides highlighted in **red** on the “Evaluation” page and above were identified at the most recent NDAG meeting, and in discussions shortly thereafter, as worthy of increased (Ta, <sup>184</sup>W, Pb, <sup>233</sup>U) or decreased (Sr) scrutiny.

It would seem appropriate that an enough of an evaluation be performed early in FY16 to determine whether additional measurements (or benchmarks) are appropriate.

Information on Pb may be obtained later this year following planned HEU/Pb and LEU/Pb critical experiments (JAEA collaboration).

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