RAMP User Meeting Information

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RAMP Program Manager
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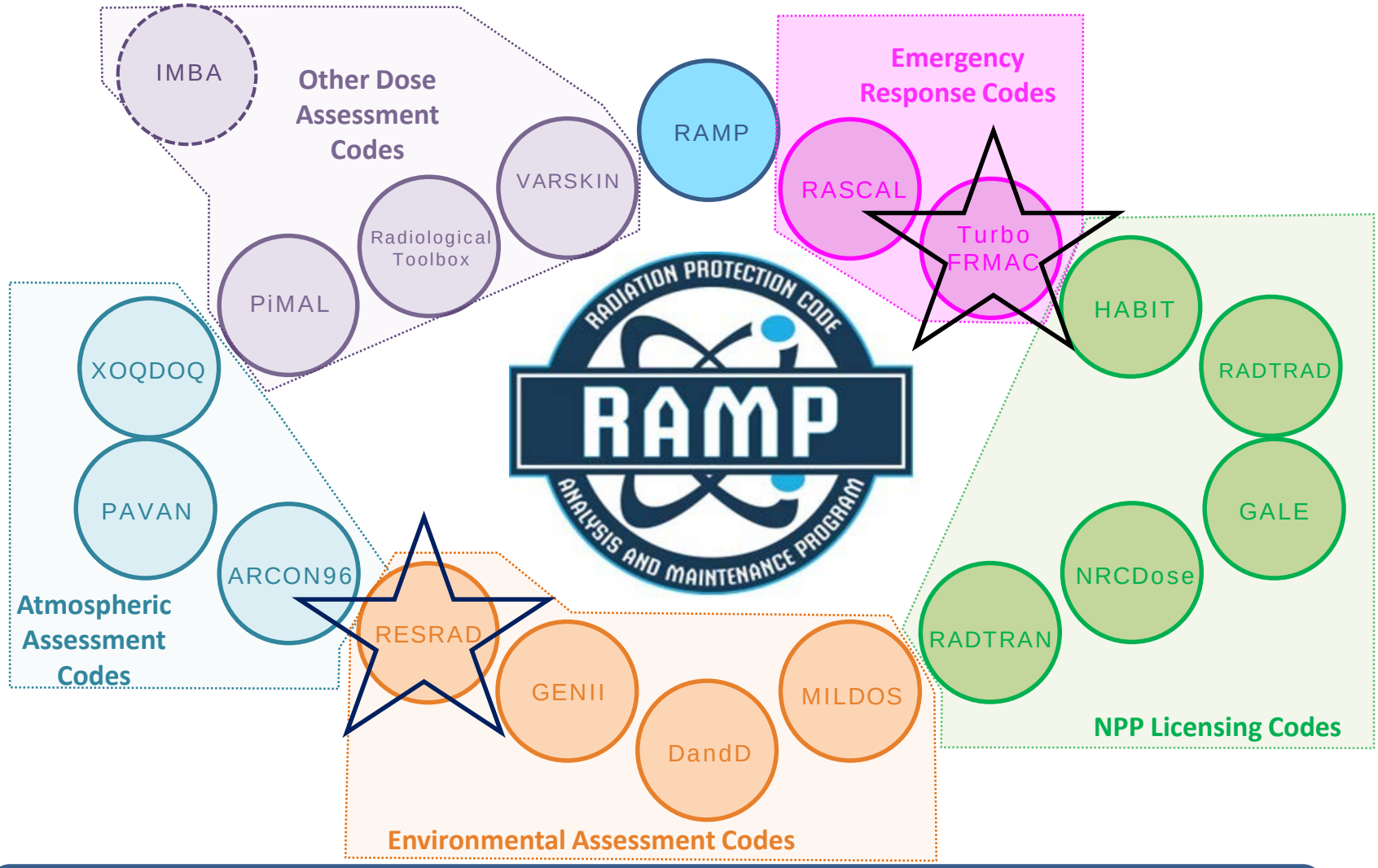
Office of Nuclear Regulatory Research
United States Nuclear Regulatory Commission

Welcome RAMP Partners

- Over **2000** registered RAMP Users (up from 1300 this time last year)
- Over 225 participants at this RAMP Meeting
  - Representatives from 14 Countries
    - Australia, Canada, Ghana, Italy, Singapore, South Africa, South Korea, Spain, Taiwan, United Arab Emirates, United Kingdom, USA, Ukraine, Vietnam
  - Federal Agencies, State and Local Governments
  - DOE National Labs
  - Universities, Medical Facilities, Nuclear Power Plants
  - Non-Lwr design companies

Dose Assessment Codes in RAMP



Information and descriptions of codes: https://ramp.nrc-gateway.gov/


U.S.NRC
RADIATION PROTECTION COMPUTER CODE ANALYSIS AND MAINTENANCE PROGRAM
RAMP
RADIATION PROTECTION COMPUTER CODE
ANALYSIS AND MAINTENANCE PROGRAM
2020 FALL USERS VIRTUAL MEETING
UNITED STATES NUCLEAR REGULATORY COMMISSION
OCTOBER 26-30, 2020
NOVEMBER 4-6, 2020

Radiation Protection Computer Code Analysis and Maintenance Program (RAMP)

2020 Fall Users Group Virtual Meeting
United States Nuclear Regulatory Commission
RAMP Website: https://ramp.nrc-gateway.gov/

ALL TIMES LISTED ARE EASTERN STANDARD TIME (EST)

Monday **October 26, 2020**	**8 AM – 9 AM EST**	**Opening Remarks** **Feature Presentation: What Does Emergency Response Look Like During a Pandemic** **Feature Presentation: Inspections during a Pandemic**
	9:30 AM – 12:00 PM	**RASCAL – For Novice Users**
	1:30 PM – 4:00PM	**GENII**
Tuesday **October 27, 2020**	**8 AM – 9 AM EST**	**Morning Primer: Toolbox**
	9:30 AM – 12:00 PM	**VARSKIN Technical Meeting**
	1:30 PM – 4:00PM	**RASCAL for Intermediate Users**
	4:00 – 4:30 PM	**Demo of RASCAL 5.0**
Wednesday **October 28, 2020**	**8 AM – 9 AM EST**	**Morning Primer: IMBA**
	9:30 AM – 12:00 PM	**Internal Dosimetry Symposium**
	1:30 PM – 4:00PM	**RESRAD***
Thursday **October 29, 2020**	**8 AM – 9 AM EST**	**Morning Primer: ATMO**
	9:30 AM – 12:00 PM	**NRC Dose**
	1:30 PM – 4:00PM	**NRC RADTRAN***
Friday **October 30, 2020**	**8 AM – 9 AM EST**	**Morning Primer: Turbo FRMAC**
	9:30 AM – 12:00 PM	**RAMP Non-LWR Code Consolidation & Modernization**
	1:30 PM – 4:00PM	**Per request: Country to Country Discussions**

Notes:
Virtual meeting buffer between sessions
*These classes are tentative.

Radiation Protection Computer Code Analysis and Maintenance Program (RAMP)

2020 Fall Users Group Virtual Meeting,
United States Nuclear Regulatory Commission
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ALL TIMES LISTED ARE EASTERN STANDARD TIME (EST)

Wednesday November 4, 2020	**9:00 AM – 12:00 PM**	**RADTRAD - novice**
	1:00 PM – 4:00 PM	**RADTRAD - novice**
Thursday November 5, 2020		
	9:00 AM – 12:00 PM	**RADTRAD - intermediate**
	1:00 PM – 4:00 PM	**RADTRAD - intermediate**
Friday November 6, 2020		
	9:00 AM – 11:00 AM	**RADTRAD – non LWR; advanced designs**
	1:00 PM – 4:00 PM	**Turbo FRMAC***

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RAMP Primers

- Tuesday
  - Radiological Toolbox – Dr. Casper Sun
- Wednesday
  - Integrated Modules for Bioassay – Dr. Richard Brey
- Thursday
  - Atmospheric Codes – Mr. Jeremy Rishel
- Friday
  - Turbo FRMAC – Mr. Thomas Laiche, CHP

RASCAL

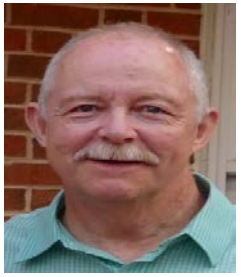
Radiological Assessment System for Consequence AnaLysis

- Fast running software used in radiological incidents to assess off-site dose consequences.
- Response organizations for pre-release and/or plume phase of radiological release to atmosphere; to help inform or evaluate protective actions.

Instructors:

Jeff Kowalczik, CHP

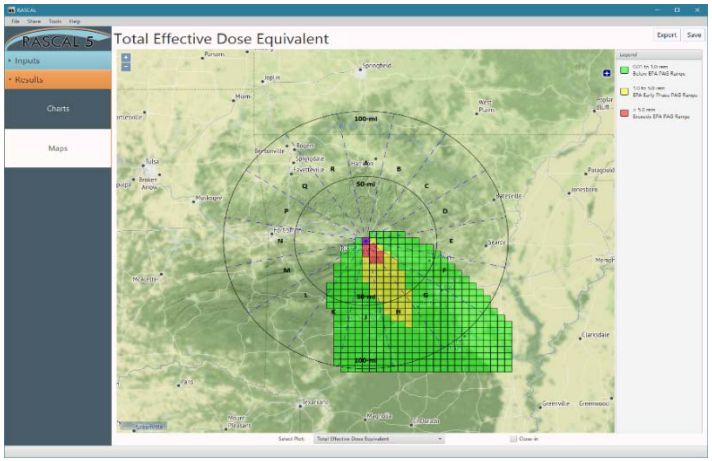
NRC



George Athey

Athey Consulting

- **What's New? RASCAL 5.0 Beta**
  - Integrates MetFetch and surface roughness and topography generating tools into the GUI
  - New charting and mapping features
  - **Demo of 5.0 Beta this week**

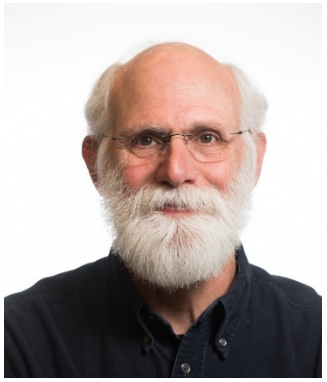


GENII

Environmental Assessment Code for estimating radionuclide concentrations in the environment and dose to humans and biota from acute and chronic radiological releases

What's New?

- Upcoming release of GENII with DOE Acute 95th Percentile Air Module Features

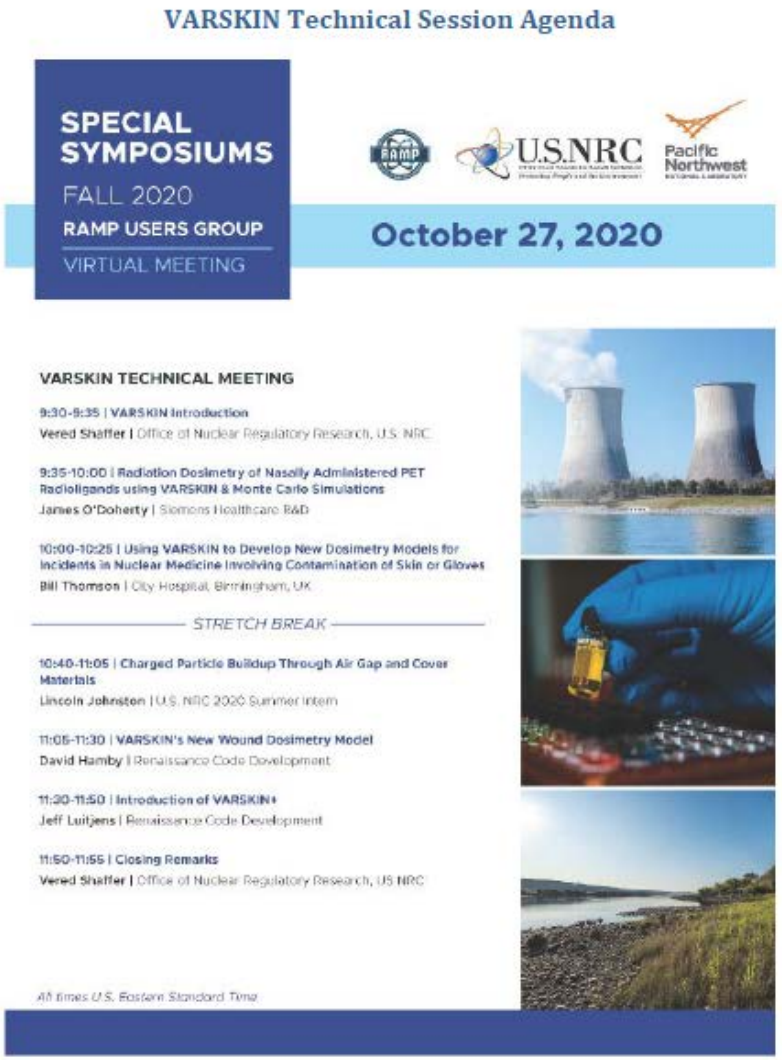


Bruce Napier, CHP
PNNL

Caitlin Condon, PhD
PNNL

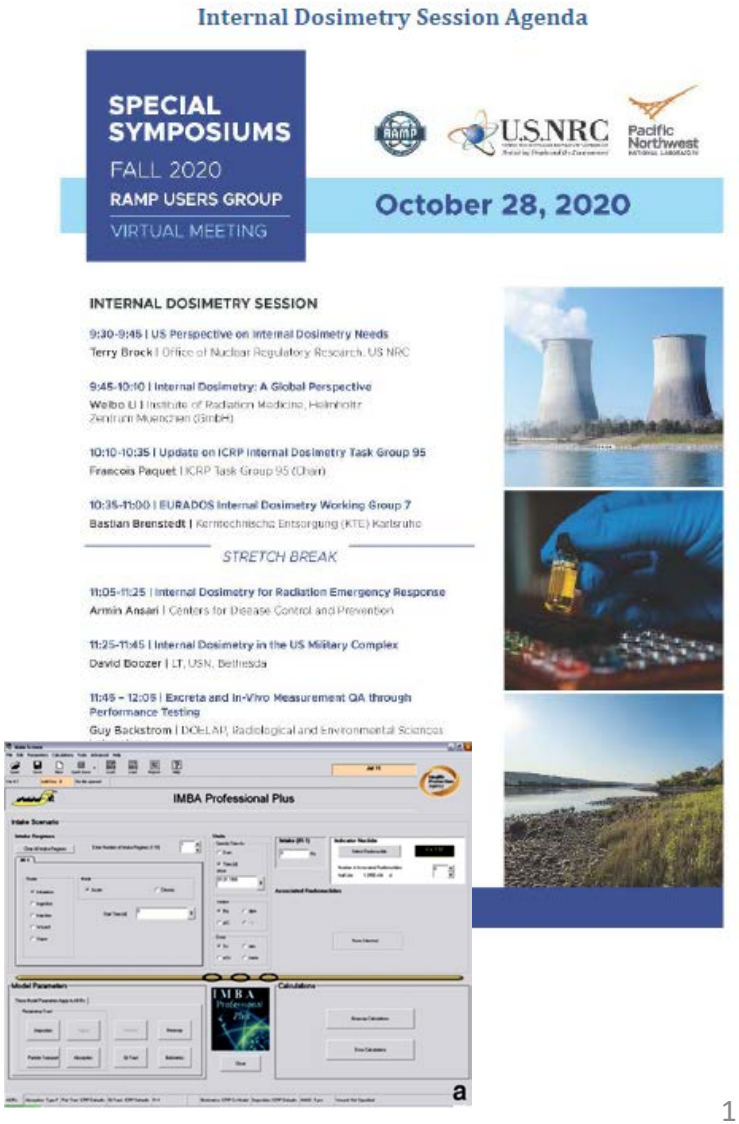
VARSKIN

- **What's New?**
  - Sensitivity Report: RAMP website
  - VARSKIN versions in Spanish and French
  - Availability of Workbooks
  - VARSKIN 7.0: January 2021
    - Alpha and neutron dosimetry
    - New GUI
    - Eye dose model
    - Wound model



Internal Dosimetry Symposium

- **What's New?**
  - RAMP – domestic resources for internal dosimetry capabilities initiative
    - Fall 2020 users group symposium
  - IMBA - joining RAMP in Dec 2020
  - Inclusion of Dose Coefficient Package Code (DCFPAK) to RAMP – Spring 2021
  - Future anticipatory regulatory need: analysis of internal dosimetry and contamination due to designs such as molten salt reactor



RESRAD

RESidual RADioactive Material

- Family of codes used to analyze human and biota radiation exposures from environmental contamination of residual radioactive materials.
- The codes are used worldwide by regulatory agencies, the risk assessment community, and universities in more than 100 countries.

- **What's New?**
  - RESRAD-OFFSITE: Summer 2020
    - Update of source term model and updated surface water model

Instructors:

Charley Yu, Ph. D.

Emmanuel Gnanapragasam, Ph. D.

David LePoire,Ph. D.

Argonne National Lab (ANL)

NRCDose

- GUI for the LADTAP II, GASPAR II, and XOQDOQ Fortran codes that implement NRC's current requirements for As Low As Reasonably Achievable for radioactive effluents from NPP.

- **What's New?**
  - NRCDose3.1.1.2 – August 2020

  Future Code Work:
  - Publish NUREG – Winter 2020
  - On-line Training Modules

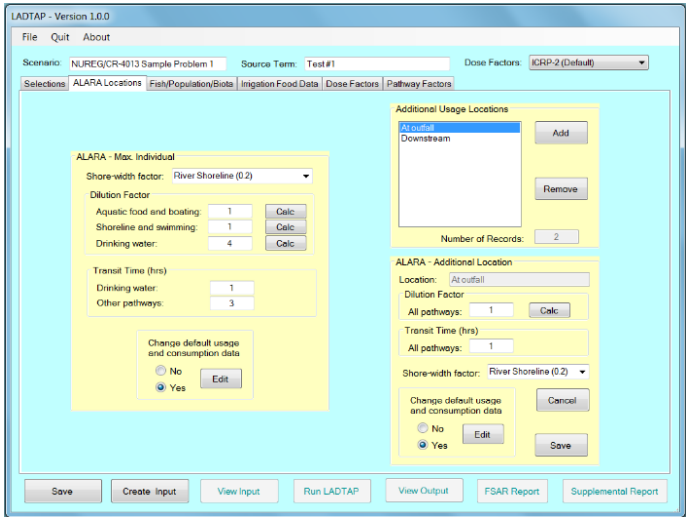
Instructors:

J. Stewart Bland, CHP

Chesapeake Nuclear Services, Inc. (CNS)

Duane DeMore

Chesapeake Nuclear Services, Inc. (CNS)

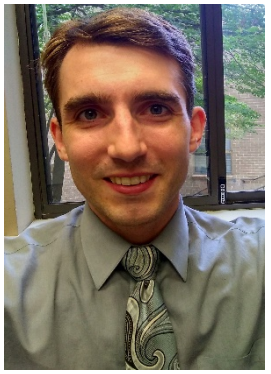


NRC-RADTRAN

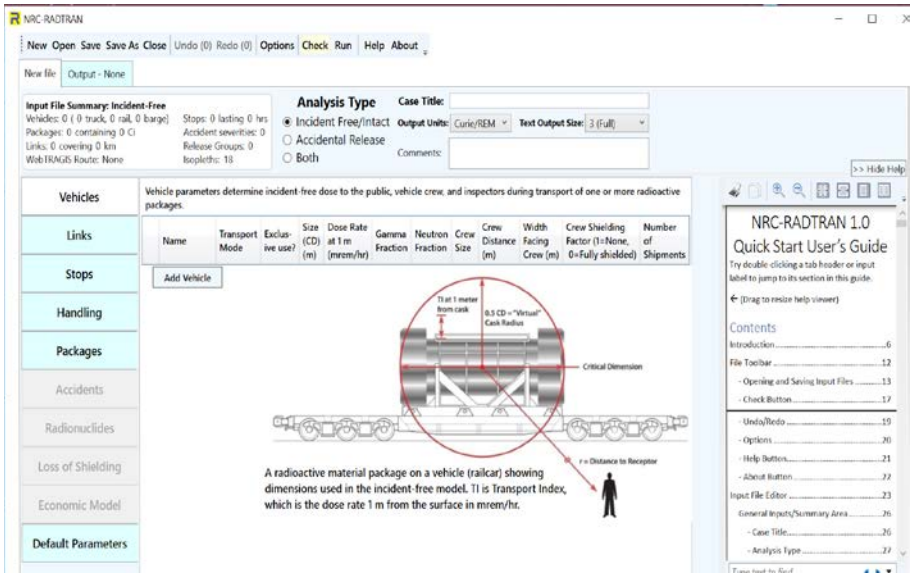
- Combines user-supplied input data with values from an internal data library to calculate the expected radiological consequences and risks associated with the transportation of radioactive material.
- Analytical tool to support NRC licensing actions by Staff and Applicants
- **New Graphical User Interface**
  - User-friendly interface with corresponding documentation
  - Windows application for performing RADTRAN runs and viewing output
  - **Demo of v1.0 this week**

Presenters

Don Palmrose, Ph.D.
U.S. NRC

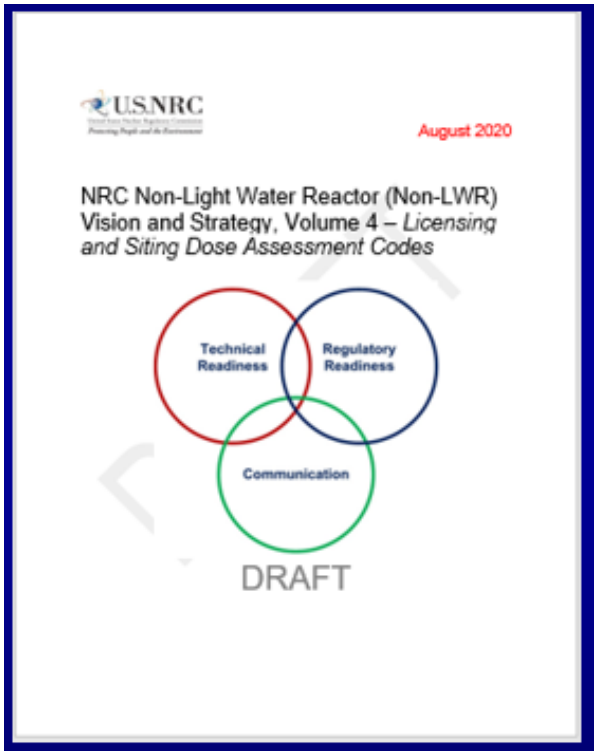


Erick Ball, Ph.D.
Energy Research, Inc.



Non-LWR Code Consolidation and Modernization

- Discuss RAMP codes as they relate to non-LWR designs and code consolidation
- Volume 4: Licensing and Siting Dose Assessment Codes
  - Potential for a spectrum of Non-LWR and fuel designs
  - Over 10 licensing and siting dose assessment codes
- Approach (Tasks)
  1. Consolidate/Modernize Dose Assessment Codes
  2. Improve characterization of Source Terms
  3. Improve Atmospheric Transport & Dispersion Models
  4. Update Dose Coefficient values
  5. Develop Environmental Pathway Models

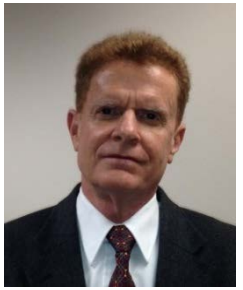


SNAP/RADTRAD

Symbolic Nuclear Analysis Package/RADionuclide Transport, Removal And Dose Estimation

- Purpose: Performs dose calculations for design-basis accidents at the exclusion area boundary, low population zone, and control room
- Use: NRC staff performs licensing confirmatory analyses of the plant's design and the licensee's offsite and control room dose calculations following a design basis accidents.

Instructors:

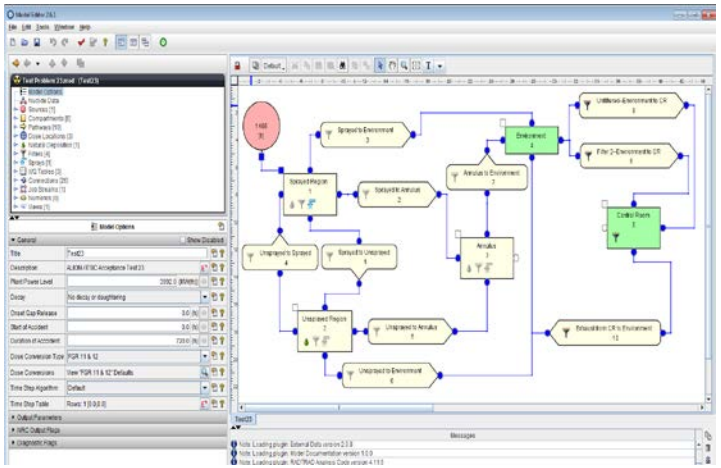


William Arcieri **Nolan Bartlow**

Information Systems Laboratories, Inc. (ISL)

- **What's New?**
  - Evaluation of non-LWR reactor needs

  Updates
  - RADTRAD-AC v5.1 – August 2020



TurboFRMAC

Thomas Laiche
Sandia National Labs

Turbo FRMAC performs complex calculations to quickly evaluate radiological hazards during an emergency response by assessing impacts to the public, workers, and the food supply.

Sandia National Laboratory will maintain distribution of Turbo FRMAC but RAMP users will be able to receive code discussions, training, and technical support.

If you need technical support for Turbo FRMAC please email nirp-support-fogbugz@sandia.gov

Reminder…
SAVE THE DATE

2021 Winter RAMP Webinar
and
2021 SPRING UKRAINE RAMP MEETING

2022 (if travel restrictions allow)

For the meeting….
I Challenge You…

- To learn
- To participate
- To question
- To think outside of the box
- To bring forward suggestions for improvements
- Share your insights
- Work together for radiation safety
- Build Networks
- Strengthen collaboration
- To have fun
- To make new friends ☺


There is a gap in your resume. What were you doing in 2020?..
Well...basically... washing my hands.
2025 job interview

Thank you for the virtual applause!