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CENTER FOR NUCLEAR AND  
RADIATION SAFETY



RADIATION PROTECTION COMPUTER CODE  
ANALYSIS AND MAINTENANCE PROGRAM

# 2021 SPRING USERS VIRTUAL MEETING CO-HOSTED WITH UKRAINE

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UNITED STATES NUCLEAR REGULATORY COMMISSION  
APRIL 12-16, 2021



# WELCOME!

**Audio** – All participants will be muted.

**Video** – All participants video will be disabled.

## **Questions** –

- Questions will be addressed at the end of the presentations.
- Please use Chat to submit any questions.
- Please type your name, country, the question, and the person the question is directed to in the chat.
- If you have questions after the meeting, please email the questions to [RAMP.ADMIN@pnnl.gov](mailto:RAMP.ADMIN@pnnl.gov)

## **Electronic Certificates** –

- Available per request only. Please email [RAMP.ADMIN@pnnl.gov](mailto:RAMP.ADMIN@pnnl.gov)

## **Technical Issues** –

- Please email [RAMP@nrc.gov](mailto:RAMP@nrc.gov)

## Meet the NRC RAMP Team

### U.S. Nuclear Regulatory Commission (NRC) RAMP Team



Vered Shaffer, Ph.D.  
RAMP Program Manager



Stephanie  
Bush-Goddard, Ph.D.  
RAMP Program Manager



Casper Sun, Ph.D., CHP  
RAMP Program Team



Edward Harvey  
RAMP Program Team

### Pacific Northwest National Laboratory (PNNL) RAMP Team



Bruce McDowell  
PNNL RAMP Program  
Manager



Caitlin Condon  
PNNL Health Physicist



Luba Hamilton  
PNNL RAMP Program  
Coordinator



Tanya Korotkov  
PNNL RAMP Program  
Coordinator

### Leidos RAMP Team



Daniel Pomykala  
Leidos RAMP Program  
Manager



James Wiedeman  
Leidos RAMP Website  
Technical Lead



Jason Luttrell  
Leidos RAMP Website  
Developer



Frederic Gooding  
Leidos RAMP Operations  
Support

# RAMP

Radiation Protection Computer Code  
Analysis and Maintenance Program



## SPRING 2021 INTERNATIONAL USERS GROUP MEETING

Virtually Co-Hosted  
with Ukraine



# APRIL 12-16, 2021

## LIST OF PRESENTERS

### Vered Shaffer

Manager of Radiation Protection Computer Code Analysis and Maintenance Program (RAMP), U.S. Nuclear Regulatory Commission (NRC)

### Stephanie Bush-Goddard

Program Manager of Radiation Protection Computer Code Analysis and Maintenance Program (RAMP), U.S. Nuclear Regulatory Commission (NRC)

### Anna Gorashchenkova

State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) Head of Division for International Cooperation and European Integration

### Oleksandr Pecherytsia

State Scientific & Technical Center (SSTC) NRS Deputy Director on Scientific and International Activities

### Kim Weber

Director, Division of Systems Analysis, Office of Nuclear Regulatory Research (NRC)

### Michael LaFranzo

U.S. Nuclear Regulatory Commission Region III

### Cynthia Barr

Senior Risk Analyst, U.S. Nuclear Regulatory Commission NMSS

### Casper Sun

U.S. Nuclear Regulatory Commission

### Deboarh Fagan

Statistician, Pacific Northwest National Laboratory

### Karen Smith

Advisor, Pacific Northwest National Laboratory

### Amoret Bunn

Senior Environmental Engineer, Pacific Northwest National Laboratory

### Lisa Newburn

Computer Scientist, Pacific Northwest National Laboratory

### Charley Yu

Argonne National Laboratory

### Sunita Kamboj

Argonne National Laboratory

### David LePoire

Argonne National Laboratory

### Bruce Biber

Argonne National Laboratory

### Bruce McDowell

Advisor, Pacific Northwest National Laboratory

### Zakhar Ivanov

State Scientific & Technical Center (SSTC) NRS

### Hennadii Chumak

State Scientific & Technical Center (SSTC) NRS

### Blake Orr

Senior Scientist, Assessment and Advice Section, Radiation Health Services, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

### Yevhen Veselov

State Scientific & Technical Center (SSTC) NRS

### Iryna Kutina

State Scientific & Technical Center (SSTC) NRS

### Rhex Edwards

Senior Health Physicist, U.S. Nuclear Regulatory Commission Region III

### Bill Lin

U.S. Nuclear Regulatory Commission

### Tom Nicholson

Senior Technical Advisor, U.S. Nuclear Regulatory Commission

### John Bliss

Los Alamos National Laboratory

### David King

Sr Health Physicist, Oak Ridge Associated Universities

### Chris Grossman

U.S. Nuclear Regulatory Commission

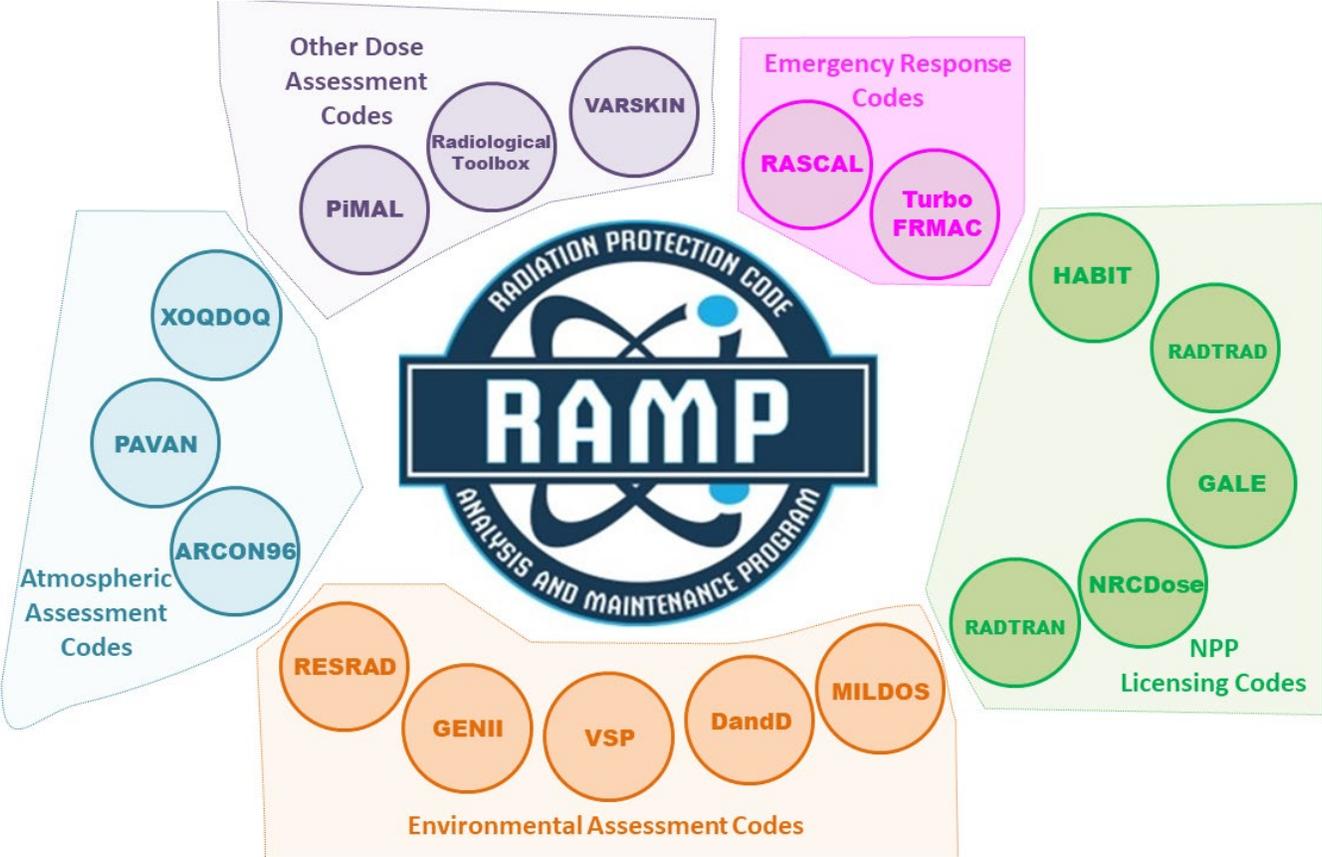
### Bruce Napier

Environmental Health Physicist, Pacific Northwest National Laboratory

### Caitlin Condon

Environmental Health Physicist, Pacific Northwest National Laboratory

# Radiation Protection Computer Code Analysis and Maintenance Program (RAMP) Codes



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## SPRING 2021 INTERNATIONAL USERS GROUP MEETING

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# APRIL 12-16, 2021

### Monday | April 12, 2021

<b>7:00 AM – 7:30 AM</b> (2:00 PM – 2:30 PM Kyiv)	Opening Remarks	
<b>7:45 AM – 9:45 AM</b> (2:45 PM – 4:45 PM Kyiv)	Regulatory Framework for Decommissioning and Environmental Remediation <i>detailed schedule to follow</i>	
<b>10:00 AM – 12:00 PM</b> (5:00 PM – 7:00 PM Kyiv)	VSP Boot Camp	Lisa Newburn (PNNL) Deb Fagan (PNNL)



### Tuesday | April 13, 2021

<b>7:00 AM – 10:00 AM</b> (2:00 PM – 5:00 PM Kyiv)	RESRAD-RDD	Charley Yu (ANL)
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### Wednesday | April 14, 2021

<b>7:00 AM – 10:00 AM</b> (2:00 PM – 5:00 PM Kyiv)	MILDOS	Bruce Biwer (ANL)
<b>10:15 AM – 11:15 AM</b> (5:15 PM – 6:15 PM Kyiv)	Drones Project Introduction	Amoret Bunn (PNNL)

### Thursday | April 15, 2021

<b>7:00 AM – 10:00 AM</b> (2:00 PM – 5:00 PM Kyiv)	Transport of Radionuclides in the Environment Symposium	<i>full schedule to be provided</i>
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### Friday | April 16, 2021

<b>7:00 AM – 8:00 AM</b> (2:00 PM – 3:00 PM Kyiv)	DandD	Christopher Grossman (NRC) David King (ORAU)
<b>8:15 AM – 10:15 AM</b> (3:00 PM – 5:15 PM Kyiv)	GENII	Bruce Napier / Caitlin Condon (PNNL)

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# APRIL 12-16, 2021

### Detailed Schedule | Opening Sessions

April 12, 2021	Opening Session	Presenter
7:00 – 7:05 AM	Welcome Remarks	Vered Shaffer (RAMP NRC)
7:05 – 7:10 AM	Welcome Remarks from State Nuclear Regulatory Inspectorate of Ukraine (SNRIU)	Anna Gorashchenkova (SNRIU)
7:10 – 7:20 AM	Welcome Remarks from State Scientific & Technical Center (SSTC)	Oleksandr Pecherytsia (SSTC NRS)
7:20 – 7:30 AM	Advancing RAMP into the Future	Kim Webber (NRC)
7:30 – 7:40 AM	Meeting Logistics	Vered Shaffer (NRC)

### Detailed Schedule | Monday AM Sessions

April 12, 2021	Regulatory Framework for Decommissioning and Environmental Remediation	Presenter
7:45 - 8:05 AM	Overview of NRC's Environmental Remediation/Decommissioning Process	Michael LaFranzo (NRC Region III)
8:05 - 8:20 AM	Guidance Updates and Other Decommissioning Activities	Cynthia Barr (NRC NMSS)
8:20 – 8:45 AM	Evaluations of Uranium Recovery Facility Surveys of Radon and Radon Progeny in Air and Demonstrations of Compliance with 10 CFR 20.1301	Casper Sun (NRC)
8:45 – 8:55 AM	Break	
8:55 – 9:25 AM	An Environmental Remediation Perspective on the Multi-Agency Site and Survey (MARSSIM)	Amoret Bunn (PNNL) Deborah Fagan (PNNL) Karen Smith (PNNL)
9:25 – 9:45 AM	IAEA's International Exercises and Technical Meetings of Radionuclide Transport in the Environment: A History	Stephanie Bush-Goddard (NRC)

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**APRIL 12-16, 2021**

## VSP Boot Camp Agenda

**April 12, 2021**

EDT	Presentation Topic
10:00 – 10:15	Introduction and VSP Overview
10:15 – 10:45	Quick Tour of VSP (Hands On)
10:45 – 11:00	<i>Break</i>
11:00 – 11:15	Exercise 1: Creating a Map and Survey Unit
11:15 – 11:50	Exercise 2: Setting up a MARSSIM Sampling Plan
11:50 – Noon	Q & A; Wrap-up

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# APRIL 12-16, 2021

## RESRAD-RDD Agenda

### April 13, 2021

EDT	Presentation Topic
7:00 – 7:10	Overview of RESRAD Family of Codes
7:10 – 7:25	RESRAD-RDD Introduction
7:25 – 7:50	RESRAD-RDD Methodology
7:50 – 8:00	<i>Break</i>
8:00 – 8:20	RESRAD–RDD Demo
8:20 – 8:30	Group A, Access Control During Emergency Response
8:30 – 8:40	Group B, Early-Phase Protective Actions
8:40 – 8:50	Group C, Relocation
8:50 – 9:00	<i>Break</i>
9:00 – 9:10	Group D, Temporary Access
9:10 – 9:20	Group E, Transportation
9:20 – 9:30	Group F, Release of Property
9:30 – 9:40	Group G, Food Consumption
9:40 – 9:50	RESRAD-RDD Exercise
9:50 – 10:00	Q & A

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# APRIL 12-16, 2021

## MILDOS Agenda

April 14, 2021

EDT	Presentation Topic
7:00 – 7:45	Introduction Scope Overview of methodology and input
7:45 – 8:00	<i>Break</i>
8:00 – 8:45	Sensitivity analysis Output options / Results analysis Meteorological data input Map usage
8:45 – 9:00	<i>Break</i>
9:00 – 9:45	ISR example
9:45 – 10:00	Q & A; Wrap-up

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# APRIL 12-16, 2021

### Detailed Schedule | Thursday Sessions

April 15, 2021	Transport of Radionuclides in the Environment (Symposium)	Presenter
7:00 - 7:05 AM	Introduction and Logistics	Bruce McDowell (PNNL)
7:05 - 7:35 AM	Challenges of Radiological Environmental Impact Assessment for Ukrainian Uranium Legacy to Safely Remediate the Site of PCP	Zakhar Ivanov (SSTC NRS), Hennadii Chumak (SSTC NRS)
7:35 - 7:45 AM	Applications of RESRAD RDD	Charley Yu (ANL)
7:45 - 7:55 AM	Estimating Radiological Health Impacts from In Situ Recovery Operations using MILDOS	Bruce Biwer (ANL)
7:55 - 8:05 AM	Break	
8:05 - 8:25 AM	Environmental Remediation and Decommissioning in Australia	Blake Orr (ARPANSA)
8:25 - 8:45 AM	Remediation of Sites with Emergency and Legacy Radioactive Waste in Ukraine	Yevhen Veselov (SSTC NRS), Iryna Kutina (SSTC NRS)
8:45 - 8:55 AM	Break	
8:55 - 9:10 AM	Day in the Life of an Environmental Remediation (Decommissioning Inspector)	Rhex Edwards (NRC)
9:10 - 9:25 AM	Decommissioning Overview and Lessons Learned of the Zion Project	Bill Lin (NRC)
9:25 - 9:40 AM	Federal Remediation Technologies Roundtable	Tom Nicholson (NRC)
9:40 - 10:00 AM	Achieving Termination of Radiological Controls Following a Cesium-137 Release at the Harborview Research and Training Building	John Bliss (LANL)
10:00 AM	Question/Answers Wrap-Up	Bruce McDowell (PNNL)

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## GENII Agenda

### April 16, 2021

EDT	Presentation Topic
8:15 – 8:55	Introduction to GENII and relationship to Uranium Mining and Milling
8:55 – 9:00	<i>Break</i>
9:00 – 9:45	GENII Example 5 Walk Through
9:45 – 10:00	GENII Example 7 Walk Through
10:00 – 10:15	Q & A; Wrap-up

THANK YOU FOR ATTENDING  
STAY TUNED  
2021 Fall Users Group Virtual Meeting



For additional information:

Email:

[RAMP@nrc.gov](mailto:RAMP@nrc.gov)

[RAMP.Admin@pnnl.gov](mailto:RAMP.Admin@pnnl.gov)

RAMP Website:

<https://ramp.nrc-gateway.gov>