



### International Chemical Security Framework

August 1, 2019

### **David Donnelly**

Pacific Northwest National Laboratory



PNNL is operated by Battelle for the U.S. Department of Energy

PNNL-SA-145127





### **Presentation Overview**

- WMD Control Regime
- Chemical Security: An Area for Further Guidance
- International Coordination, Priorities
- Chemical Security Framework Project
  - Project Approach
  - Regulatory Implementation Toolkit
- Incorporating Stakeholder Perspectives
- Importance of Industry Outreach
- Conclusion, Contacts



## **WMD Control Regime**

- The Chemical Weapons Convention
  - Prohibits possessing chemical weapons (Arts. I, VII)
  - Obligates States to ensure that toxic chemicals and precursors are only used for peaceful purposes (Art. VI)
- UN Security Council Resolution 1540
  - Requires States to establish domestic controls to prevent proliferation of chemical weapons and related materials, including by accounting for and securing such items in production, use, storage or transport, and developing effective physical protection measures



### CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION, STOCKPILING AND USE OF CHEMICAL WEAPONS AND ON THEIR DESTRUCTION



OPCW

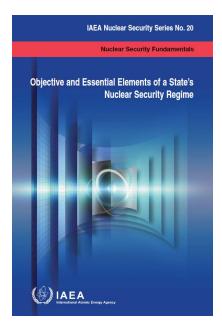
A wide view of the Security Council as Members unanimously adopt resolution 1977 (2011) on 20 April 2011, extending for 10 years the mandate of the 1540 Committee, UN Photo/Devra Berkovitz

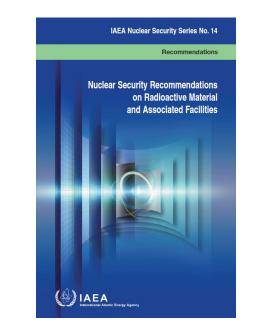


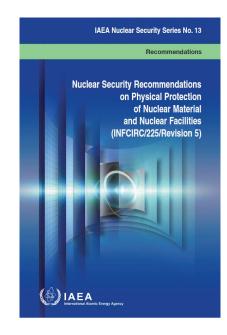
## **Chemical Security: An Area for Further Guidance**

- Comprehensive, authoritative international guidance on how to secure dangerous chemicals does not yet exist
  - However, there is both international consensus and comprehensive, voluntary guidance on how to secure nuclear and radioactive material, stewarded by the International Atomic Energy Agency (IAEA)
  - Some countries have chemical security frameworks consistent with same principles











### International Coordination, Action Plan

- International community recognizes need for greater information on how to secure dangerous chemicals
  - Chemical Security Working Group (CSWG) of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction adopted a Strategic Vision that includes supporting and enhancing chemical non-proliferation instruments, institutions and practices
  - CSWG identified development of model legislative and regulatory frameworks for chemical security as specific action area



Global Partnership Against the Spread of Weapons and Materials of Mass Destruction

About ~

Partners

Resources

Global Partnership Against the Spread of Weapons and Materials of Mass Destruction Chemical Security Sub-Working Group Strategic Vision

The Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP or Global Partnership) began at the 2002 Kananaskis G8 Summit as a 10-year, \$20 billion initiative to prevent terrorists or states that support them from acquiring or developing weapons of mass destruction. Since its inception, the GP has grown to include more than 30 active partner countries and has delivered well over \$22 billion in programming worldwide to prevent chemical, biological, radiological and nuclear (CBRN)





### **Chemical Security Framework Project: Synthesize Model Frameworks for Chemical Security**

 US Defense Threat Reduction Agency launched this Chemical Security Framework (CSF) Project in part to address this CSWG priority.

End Goal	Consolidated menu of legislative and regulato approaches and specific measures for countri- consider to reduce risk of illicit CW acquisition
Approach	Synthesize existing good practices from interr guidance and national regulatory frameworks dangerous chemicals and other hazardous ma

### ory ries to n and use national for securing aterials



### **Project Approach: Gather and Synthesize Prior Good Practices**

• Sources are to include:

•UNSCRs	•1540
International Instruments	CWC; Basel, Stockholm, Rotterdam Conventions; Conv. on Transbour Industrial Accidents; UNEP Guidance
OPCW Publications	CWC Implementation & Assessment Guide, CWC National Legislation Kit; Needs & Best Practices on Chemical Safety & Security Manageme
Regional/National Requirements	EU REACH, Seveso Directive, Explosives Precursors Regulation; U.S. Homeland Security Chemical Facility Anti-Terrorism Standards (CFATS Explosives Act and Regulation; CWC implementing regimes (various)
Industry, Academia	Responsible Care ®, Global Chemists' Code of Ethics, Hague Ethical
IAEA Framework	Convention on the Physical Protection of Nuclear Material & Amendme Conduct on the Safety & Security of Radioactive Sources; Nuclear Sec



### indary Effects of

n Implementation nent

S. Department of S), Canada

al Guidelines

nent; Code of ecurity Series

### **Project Objective: Develop a Regulatory Implementation Toolkit**



Pacific

- Compile guidance on good practices for implementing a national chemical security framework
- Develop training and informational materials on recommended content of a comprehensive national chemical security framework
- Develop chemical security framework assessment tool
  - Checklist & questionnaire to assess the country's existing framework addresses against recognized chemical security good practices
- Develop example regulatory provisions for chemical security



## **Incorporating Stakeholder Perspectives**

- Industry plays a crucial role in chemical security
  - Collaborative industry engagement and leveraging of industry standards, such as Responsible Care<sup>®</sup>, to be highlighted as best practices
  - CSF Team attending Chemical Sector Security Summit to observe U.S. model, learn what works well, incorporate lessons learned
- Team similarly met with GP CSWG, Organisation for the Prohibition of **Chemical Weapons** 
  - Project seeks to provide a draft best practice framework that can be considered for further development at the international level





- Project purpose: To reduce risk of chemical terrorism through promoting sound regulatory practices to secure high-risk chemicals
- Envisioned outcome: Distillation of internationally recognized good practices into non-binding guidance for the secure management of high-risk chemicals; a basis for technical assistance
- Industry engagement and support play a vital role in achieving effective chemical security



### **David Donnelly**

Principal Investigator, Chemical Security Framework Project <u>David.Donnelly@pnnl.gov</u> +1-206-528-3418

### **Rachel Weise**

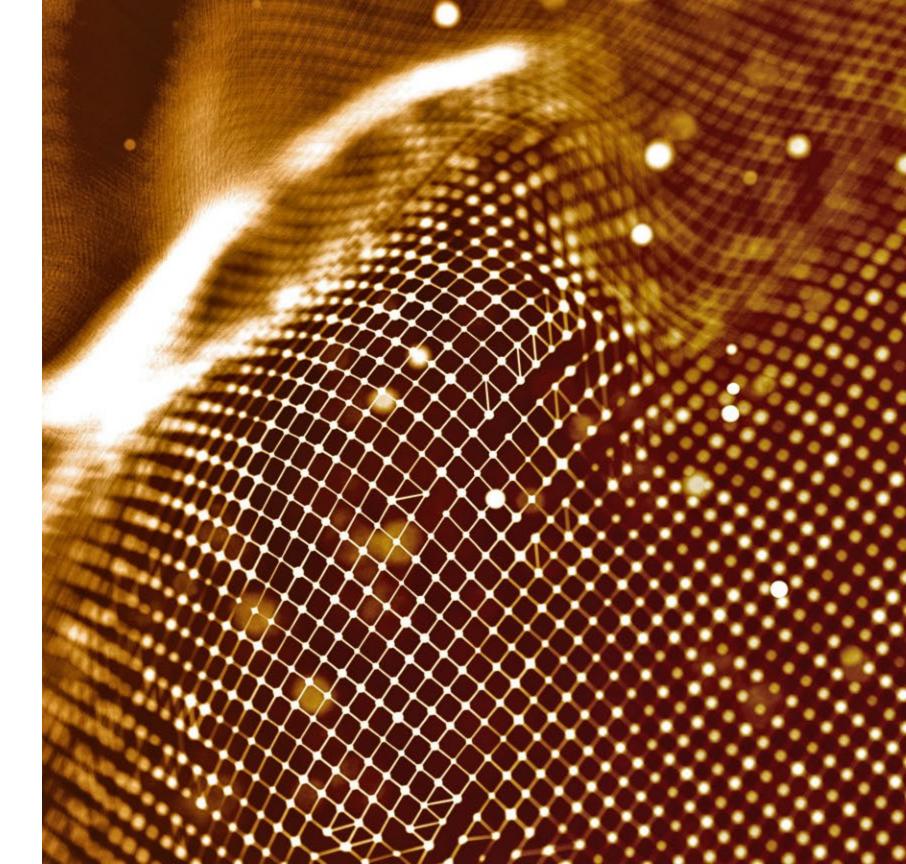
Legislative & Regulatory Affairs Analyst <u>Rachel.Weise@pnnl.gov</u> +1-206-528-3404

PNNL-SA-145127



0

# Thank you



PNNL-SA-145127