# Fusion Safety and Regulation Course

**June 30 – July 2, 2025**
MIT Schwarzman College of Computing, 51 Vassar Street (Building 45), 8th Floor, Cambridge, MA

## Course Goal

Through a blend of lectures, real-world case studies, and interactive discussions with other fusion professionals, participants will gain the practical knowledge needed to meaningfully engage with the topics of fusion safety and regulation. The course will include key safety considerations for fusion devices, the regulations that apply to planned fusion facilities, and how other industries develop safety cultures.

## Course Timetable

*Subject to change*

**Monday, June 30 | Introduction to Fusion Energy and Fusion Safety**

| Time | Lecture | Speaker, Affiliation |
|---|---|---|
| 8:15 – 9:00am | *Refreshments available; registration* | - |
| 9:00 – 9:30am | Introduction to Fusion Energy Technology Safety and Regulation Course (goals, welcome) | Earl Marmar, MIT PSFC<br>Sehila Gonzalez de Vicente, CATF |
| 9:30 – 10:15am | Introduction to fusion energy technology and commercial fusion power plants | Dennis Whyte, MIT PSFC/NSE |
| 10:15 – 10:45am | *Break* | - |
| 10:45 – 11:45am | Overview of different fusion energy concepts and technologies currently under development | Derek Sutherland, Realta Fusion |
| 11:45am – 1:00pm | *Lunch break* | - |
| 1:00 – 2:00pm | Overview of fusion energy safety considerations (more cross-cutting, common, considerations – tritium, radiation safety) | Takashi Ino, Kyoto Fusioneering |
| 2:00 – 2:45pm | Fusion energy technology and design specific safety considerations (e.g., lasers, high strength magnetic fields, cryogenics) | Adriaan Riet, INL |
| 2:45 – 3:15pm | *Refreshment break* | - |

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|---|---|---|
| 3:15 – 4:30pm | Panel discussion: safety principles from other industries (aviation, chemical, fission) | Duncan White, U.S. NRC<br><br>Sylvia E. Johnson, U.S. CSB<br><br>*To be confirmed from Federal Aviation Administration (FAA), and Ontario Power Generation (OPG).* |
| 4:30 – 5:00pm | Integration of safety assessment into fusion energy design | Andrew Sowder, EPRI |
| 5:15 – 7:15pm | *Welcome reception* | - |

**Tuesday, July 1 | Case Studies on Radioactive Material, Accelerator, and Fusion Machine Safety**

| Time | Lecture | Speaker, Affiliation |
|---|---|---|
| 8:15 – 9:00am | *Refreshments available* | - |
| 9:00 – 9:45am | Radiation safety in Fusion | Ethan Peterson, MIT PSFC |
| 9:45 – 10:30am | PSFC experience with tritium safety and analysis | Rémi Delaporte-Mathurin, MIT PSFC |
| 10:30 – 11:00am | *Break* | - |
| 11:00am – 12:00pm | SRNL experience with tritium safety and management | Alex Somers, SRNL |
| 12:00 – 1:00pm | *Lunch break* | - |
| 1:00 – 1:30pm | PSFC lessons learned from lab-scale fusion facilities and major accelerator facilities | Theodore 'Ted' Golfinopoulos, MIT PSFC/NSE |
| 1:30 – 2:00pm | CERN experience with activated material safety and activated waste management | Luca Bruno, CERN |
| 2:00 – 2:30pm | SHINE lessons learned from lab-scale fusion facilities and major accelerator facilities | Ross Radel, SHINE Technologies |
| 2:30 – 3:00pm | *Refreshment break* | - |
| 3:00 – 3:30pm | Eurofusion experience with activated material safety and activated waste management | Sandrine Rosanvallon, CEA Eurofusion |
| 3:30 – 4:15pm | Case study: Lessons learned from ITER | Joëlle Elbez-Uzan, CEA Eurofusion |
| 4:15 – 5:00pm | Case study: Lessons learned from JET | Omar Afify, UKAEA |

**Wednesday, July 2 | Considerations for Creating and Implementing Fusion Regulation**

| Time | Lecture | Speaker, Affiliation |
|---|---|---|
| 8:15 – 9:00am | *Refreshments available* | - |
| 9:00 – 9:30am | Connecting fusion energy safety and fusion energy regulation | Patrick White, CATF |
| 9:30 - 10:00am | Overview of fusion energy safety considerations for private fusion energy designs | Corinne Mitchell, Commonwealth Fusion Systems |
| 10:00 – 11:00am | Panel Discussion: Basic principles of fusion regulation in the United States – 10 CFR Part 30 | Federal: Duncan White, U.S. NRC<br><br>States: Beth Shelton, OAS<br><br>Industry: Andrew Proffit, Helion<br>Corinne Mitchell, CFS |
| 11:00 – 11:30am | *Break* | - |
| 11:30am – 12:00pm | International and national regulatory considerations and roles for fusion energy | Greg Degen, Commonwealth Fusion Systems |
| 12:00 – 12:30pm | Industry engagement and leadership on safety and regulation for commercial fusion energy | Sally Forbes, UKAEA |
| 12:30 – 1:30pm | *Lunch break* | - |
| 1:30 – 2:00pm | Safety culture and defining safety expectations and needs for commercial power plants | *Tennessee Valley Authority - To be confirmed* |
| 2:30 – 3:00pm | Providing certainty and regulatory efficiency for commercial fusion energy regulation at scale | Jeffrey Merrifield, Pillsbury Winthrop Shaw Pittman LLP |
| 3:00 – 4:00pm | Wrap-up discussions with participants and speakers | Moderated by CATF |

## Speaker Biographies

**Sehila M. Gonzalez de Vicente**
*Global Director, Fusion Energy, Clean Air Task Force*

Sehila M. Gonzalez de Vicente joined Clean Air Task Force in 2023 as the Global Director for Fusion Energy. She holds a BSc and MSc in Physics and a PhD in Materials Physics from University Complutense de Madrid as well as a MBA from the EOI Business School. She has more than 18 years of experience in fusion technologies and materials.

Previously, she was the senior expert in fusion as a nuclear fusion physicist at the International Atomic Energy Agency (IAEA). Before joining IAEA, she was responsible for the fusion materials development program at European Fusion Development Agreement/Eurofusion in Garching bei Munchen, Germany.

She was appointed European Technical Coordinator of the International Fusion Energy Research Centre (IFERC) project between Europe and Japan as well as member of the Karlsruhe Institute of Technology (KIT) scientific advisory board in the research field of energy. She has been chair of the 9th Annual Assessment of Fusion for Energy and member of the Review Committee for the European Spallation Source Re-baseline Review. She is also member of the UK Fusion Technical Advisory Group and the IFMIF-DONES España Technical Advisory Committee. She is co-editor and contributing author of the book Fundamentals of Magnetic Fusion Technology. She is also chair of the Women in Fusion Group.

**Patrick White**
*Group Lead, Fusion Energy Safety and Regulation, Clean Air Task Force*

Patrick White joined Clean Air Task Force (CATF) in 2025 as the Group Lead for fusion energy safety and regulation. He leads the CATF International Working Group on fusion energy safety, waste, and non-proliferation, focused on creating globally harmonized regulatory policy and frameworks for commercial fusion energy.

His work includes detailed technical and policy analysis of fusion technology to help develop proportional regulatory frameworks that enable the effective, efficient, and predictable licensing and deployment of commercial fusion energy. He also contributes to CATF's work on advanced fission energy with a focus on regulatory issues, and stakeholder outreach and education.

He holds a B.S. and M.S. in Mechanical Engineering from Carnegie Mellon University and an M.S. and PhD in Nuclear Science and Engineering from the Massachusetts Institute of Technology (MIT). His PhD research focused on developing new licensing methods and regulatory frameworks for commercial fusion technology and his M.S. research focused on new advanced fission reactor licensing pathways. He also was coauthor of the 2018 MIT "Future of Nuclear Energy in a Carbon-Constrained World" study and he led report research on new nuclear power plant licensing. Previously, he was the Research Director at the Nuclear Innovation Alliance, leading technical analysis and stakeholder engagement on advanced nuclear energy, and worked with the commercial nuclear industry at MPR Associates.

**Earl Marmar**
*Associate Director, Massachusetts Institute of Technology Plasma Science and Fusion Center*

Dr. Earl Marmar received his Ph.D. in Physics from Princeton University in 1977. During his graduate research at Princeton, he helped to develop a technique to introduce an intense beam of low energy neutral atoms into the edge of a tokamak plasma discharge that has found subsequent application in fusion related experiments worldwide. In the late 1970s, working on the Alcator A tokamak at MIT, Dr. Marmar was the co-discoverer of the edge plasma radiative condensation phenomenon which has come to be known as the MARFE. From 1984-87, Dr. Marmar's research on Alcator C included the first unambiguous observations of charge transfer, from excited neutral hydrogen to highly stripped impurity ions in a tokamak plasma, and the lamb shift in the ground state of hydrogen-like argon was measured with unprecedented precision. In his experiments on Alcator C-Mod, Li pellet imaging is being used to measure internal poloidal magnetic field profiles and plasma turbulence.

Dr. Marmar has served on a number of advisory panels for the Department of Energy, including the Fusion Energy Sciences Advisory Committee. He is currently a member of the University Fusion Association Executive Committee. In July 2003, Dr. Marmar was named Head of the Alcator C-Mod Project.

**Dennis Whyte**
*Hitachi America Professor of Engineering, Massachusetts Institute of Technology Plasma Science and Fusion Center*

A recognized leader in fusion research, especially in the magnetic confinement of plasmas, Whyte has paved an innovative and faster path to producing fusion energy. He leads the fusion project, SPARC — a compact, high-field, net fusion energy fusion device — in collaboration with private fusion startup Commonwealth Fusion Systems (CFS). The core of the SPARC project was formed over eight years ago during a design course led by Whyte to challenge assumptions in fusion. Many of the ideas underpinning the high-field approach — including the use of HTS for high-field, demountable magnets, liquid blankets, and ARC (a fusion power plant concept) — have been conceived of or significantly advanced in his design courses. Whyte has over 300 publications, is a fellow of the American Physical Society, and has served on panels for the National Academies, the United States government, and the Royal Society. In 2018 Whyte received The Fusion Power Associates (FPA) Board of Directors Leadership Award which is given annually to individuals who have shown outstanding leadership qualities in accelerating the development of fusion. Whyte earned a BS from the University of Saskatchewan, and an MS and PhD from Université du Québec.

**Rémi Delaporte-Mathurin**
*Research Scientist, Massachusetts Institute of Technology Plasma Science and Fusion Center*

*Bio to follow*

**Ethan Peterson**
*Assistant Professor of Nuclear Science and Engineering, Massachusetts Institute of Technology Plasma Science and Fusion Center*

Education

- PhD, Physics, University of Wisconsin—Madison, 2019
- MS, Physics, University of Wisconsin—Madison, 2017
- MS, Nuclear Engineering, University of Wisconsin—Madison, 2015
- BS, Nuclear Science and Engineering & Physics, MIT, 2013

Research Positions

- Research Scientist, MIT Plasma Science and Fusion Center, 2021-2024
- Postdoctoral Associate, MIT Plasma Science and Fusion Center, 2019-2021

**Omar Afify**
*Head of Safety Case, UK Atomic Energy Authority (UKAEA)*

Omar is the Head of Safety Case Engineering and Technical Authority owner for UKAEA. Under this role, Omar is responsible for the leadership and management of all UKAEA Safety Cases, and is accountable to the UKAEA Chief Engineer and UKAEA Chief Operating Officer for setting the strategic direction of safety case production and for the safety management processes of UKAEA's high hazard activities. He is degree qualified Chemical and Process Engineer and has spent over 10 years in various safety engineering and consultancy roles in the Oil & Gas and Nuclear Fusion industries. He is experienced in safety case authorship, technical safety, hazard and risk management, and has carried out projects for a variety of major hazard facilities both in the UK and internationally. He joined UKAEA in 2020, where he is responsible for managing the delivery of complex safety case programmes for the Joint European Torus (JET), STEP and other high hazard facilities across multiple UKAEA sites.

**Luca Bruno**
*Nuclear Engineer, Occupational Health & Safety and Environmental Protection Unit, CERN (Conseil Européen pour la Recherche Nucléaire - European Council for Nuclear Research)*

Luca BRUNO studied nuclear engineering at the University of Palermo (Italy). After graduating, he moved to Germany to work on the ITER nuclear fusion project. He later joined CERN, the European Organization for Nuclear Research based in Switzerland, where he has been active in the field of particle accelerator engineering since 1998.

He currently serves as the project leader for the development of CERN's new facility for radioactive waste treatment and interim storage.

**Greg Degen**
*Head of International Affairs, Commonwealth Fusion Systems*

*Bio to follow*

**Joëlle Elbez-Uzan**
*Head of Innovation Department DEMO fusion power plant, CEA Eurofusion*

Joëlle Elbez-Uzan is the Head of the Fusion Power Plant Innovation Department at EUROfusion, where she oversees cross-disciplinary efforts to advance the design and realization of future fusion power plants, with a focus on engineering integration, nuclear safety, licensing, and large-scale project coordination. Her work contributes directly to the development of DEMO, the European demonstration fusion power plant intended to produce net electricity and bridge the gap between ITER and commercial fusion energy.

Before joining EUROfusion, Joëlle held a pivotal leadership role at ITER, serving as Head of the Nuclear Safety and Licensing Division. In this capacity, she was responsible for navigating one of the most complex international nuclear licensing frameworks, ensuring ITER's compliance with French nuclear regulations and supporting the project's safety case development from early design stages to licensing milestones.

With a solid background in nuclear engineering, safety governance, and high-impact project management, Joëlle has more than two decades of experience in the fusion energy domain. She is particularly engaged in fostering innovation pathways that make fusion a viable, regulated, and societally accepted energy source for the future.

Her career reflects a deep commitment to the success of European fusion programs and to building the foundations of a safe, sustainable, and regulated fusion industry.

**Sally Forbes**
*Fusion Safety Advisory Group Lead, UKAEA (United Kingdom Atomic Energy Authority)*

Dr. Sally Forbes has worked at the Culham Campus for seven years, and is the Fusion Safety Advisor for UKAEA. In this role, she leads a small team providing technical expertise in fusion safety, security & environment, supporting the development of the regulatory framework for future fusion power plants. Prior to working in fusion, Dr. Forbes had 20 year's experience in the nuclear industry, including the development of safety cases and safety management processes.

**Theodore 'Ted' Golfinopoulos**
*Research Scientist, Massachusetts Institute of Technology Plasma Science and Fusion Center*

*Bio to follow*

**Takashi Ino**
*Plant Technology Division Manager, Technical Development Department, Kyoto Fusioneering*

Mr. Takashi Ino joined Kyoto Fusioneering in August 2021. In his previous position, he was responsible for safety assessments of nuclear power plants, exposure evaluations and source term analyses during accidents, as well as public relations and coordination with local governments regarding safety measures and accident impacts. At Kyoto Fusioneering, he is engaged in safety assessments of fusion systems, fusion regulatory analysis, IAEA-related tasks, and stakeholder communication. He is a member of the Prototype Reactor Design Joint Special Team, the Atomic Energy Society of Japan (Fusion Division, Research Specialist Committee Member for Fusion Risk), and J-fusion (Safety Standards Working Group). He holds a Master's degree in Nuclear Engineering from the University of Tokyo.

**Sylvia E. Johnson**
*Board Member, Chemical Safety and Hazard Investigation Board*

Dr. Johnson has more than two decades in the health and safety field. She began researching chemical exposures when she was a doctoral student at Old Dominion University in Norfolk, Virginia, where her dissertation focused on the health hazards associated with children being exposed to lead in paint, dusts, and the environment.

Dr. Johnson's professional experience includes investigating industrial manufacturing accidents, hazard recognition and mitigation, and understanding the connections between government agencies and the public's health and safety. She spent five and a half years as an Occupational Epidemiologist in the Health and Safety Department for the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW). In this role she conducted workplace hazard assessments and investigated incidents involving the death of workers due to either chemical, biological, or physical exposures.

She has led health and safety investigations focused on fatal and non-fatal injuries from manufacturing equipment malfunctions. Dr. Johnson spent several years working as a legislative advocate where she worked on legislation to ensure that the Occupational Safety and Health Administration had adequate funding to carry out its mission and to live out its motto to "plan, prevent and protect." She also worked to help enact into law the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which amended the Toxic Substances Control Act (TSCA) and gave the Environmental Protection Agency the tools necessary to ensure the safety of chemicals, as well as strengthen health protections for all workers and their families. While at UAW, she led the charge to advance legislation assisting the victims of contaminated drinking water in Flint, Michigan.

Most recently, as a legislative advocate with the National Education Association (NEA), Dr. Johnson was part of an internal health and safety team focused on the COVID-19 pandemic, with specific emphasis on educating NEA members on the safety and efficacy of COVID-19 vaccines. This required working to ensure that correct and accurate information about the vaccines was communicated to NEA members so they could make informed decisions about the vaccines for themselves and their families.

**Jeffrey Merrifield**
*Global Energy Section Leader and Partner, Pillsbury Winthrop Shaw Pittman LLP*

The Honorable Jeffrey S. Merrifield, a former presidential appointee to the Nuclear Regulatory Commission, is leader of Pillsbury' s Nuclear Energy Team and co-Leader of the firm' s Energy Transition practice. He is widely recognized as an international thought leader on nuclear power and the deployment of complex energy systems for the avoidance of carbon generation. During his three decades of involvement in the energy industry, Jeff has developed wide-ranging relationships throughout the international nuclear community that allow him to identify strategic and legal solutions for major energy and environmental matters. He is considered a leader in advanced nuclear and fusion deployment and has assisted large and developing nuclear utilities, suppliers and governments in effectively meeting their regulatory requirements and strategic objectives regarding the deployment of complex energy systems. Jeff's well-received corporate executive experience, as well as media and public speaking capabilities, also provide a significant resource for the advocacy of common-sense and cost-effective solutions.

**Corinne Mitchell**

*VP EHS & Security, Commonwealth Fusion Systems*

*Bio to follow*

**Andrew Proffitt**
*Regulatory Policy Lead, Helion Energy*

*Bio to follow*

**Ross Radel**
*Chief Technology Officer, SHINE Technologies*

Dr. Radel has served as SHINE's Chief Technology Officer since April 2021. He has over 20 years of R&D experience on a variety of fusion, fission, and particle accelerator technologies that are directly applicable to SHINE's core technologies and is licensed as a Professional Engineer. From 2011 to 2021, Dr. Radel served as the CEO and Board Member of Phoenix Nuclear Labs where he led dozens of technical projects related to neutron generation and neutron-based detection methods. Prior to joining Phoenix, he served as a Senior Member of the Technical Staff at Sandia National Laboratories where he worked to develop space nuclear power systems. Dr. Radel holds a Ph.D. in nuclear engineering from the University of Wisconsin-Madison, where his research focused on high-flux fusion neutron generation for detecting clandestine materials such as HEU.

**Adriaan Riet**
*Research Scientist, Idaho National Laboratory*

Dr. Adriaan Riet performs computational modeling within the fusion safety program at Idaho National Laboratory. He manages the development of the fusion branch of the MELCOR severe accident simulation software that has been used for the site licensing basis for ITER. He also directs the effort to digitize and modernize access to historical program records and analyses, and supports efforts to develop high-fidelity and mixed-fidelity models of critical fusion systems and components for safety purposes using MOOSE-based tools. He also works in the Advanced Gas Reactor program to develop BISON models which characterize fission product transport in TRISO fuel, and has a background modeling defect-assisted transport in ceramic media.

**Sandrine Rosanvallon**
*DEMO Plant – Senior Safety and Environmental Engineer, CEA Eurofusion*

Sandrine Rosanvallon began her career as an engineer specializing in fast breeder reactor materials at the French Alternative Energies and Atomic Energy Commission (CEA). In the early 2000s, she was involved in the site studies for the construction of ITER in France, dealing with waste, decommissioning and tritium processes. Her experience in tokamaks has been strengthened by working at JET (Culham UK) on fusion technology and machine operation and at Tore Supra (Cadarache France) on the development of diagnostics to support the safety studies for ITER. She has worked for the ITER Organization for more than 13 years in the Nuclear Safety and Environment Division dealing with remote handling systems, radioactive waste treatment and storage, hot cell and radwaste building design and decommissioning. She was involved in the licensing process and later in the coordination of the construction activities from a safety and environmental point of view.

Since 2022 she has been working for the EU DEMO Safety Office involved in the definition of the safety baseline, definition and propagation of high level safety requirements, development of the waste management strategy and management of the EUROfusion work package on safety and environment. She is a nuclear safety expert for the CEA Fundamental Research Division.

**Beth Shelton**
*Director of the Division of Radiological Health, State of Tennessee*

Beth Shelton is the current Director for the Tennessee Division of Radiological Health. She has been with the State of Tennessee for 25 years working in all sections of the Division, including oversight of regulation compatibility and development, inspection of Division licensees and managing the Division's radioactive material licensing program. Beth has served as an Integrated Materials Performance Evaluation Program (IMPEP) team member and is currently an IMPEP team leader in training. She has also served on the Executive Board of the Organization of Agreement States as Treasurer for two terms and is currently the Chair.

Beth served as an advisor to the Tennessee Nuclear Energy Advisory Council and has represented Tennessee at various national conferences and on panels presenting on fusion topics. She is passionate about the advancement of clean energy sources and is working hand in hand with government agencies and industry to make this a reality for Tennesseans.

Beth holds a Bachelor of Science Degree in Biology and Chemistry from Middle Tennessee State University. She also holds a Master of Professional Studies Degree in Strategic Leadership as well as a certification in Lean Management from Middle Tennessee State University. Beth is a member of both OAS and CRCPD.

**Alex Somers**
*Savannah River National Laboratory*

Alex Somers joined Savannah River National Laboratory (SRNL) in 2023 as a senior scientist and is currently the technical lead for nonproliferation-related fusion energy projects in the Tritium Technology Division. He holds a BS in Nuclear Engineering from North Carolina State University and a PhD in Nuclear Engineering from Pennsylvania State University. During graduate school, Alex completed his dissertation work on the development of a particle-in-cell plasma-material interactions model at SRNL as a Department of Energy – Office of Science Graduate Student Research Assistant awardee. Prior to attending graduate school, he worked as a shift technical engineer and process systems engineer at the Savannah River Tritium Enterprise from 2016 – 2019. Alex's current research topics include fusion fuel cycle modeling and design, cryogenic distillation design optimization, light isotope separation, and nonproliferation topics related to fusion energy.

**Andrew Sowder**
*Senior Technical Executive, Fusion Energy Strategic Program, Electric Power Research Institute (EPRI)*

Andrew Sowder is a Senior Technical Executive at EPRI where he leads an EPRI strategic program on fusion energy he established in 2023. Previously, he established EPRI's advanced reactor research portfolio and managed applied research on advanced nuclear fuel cycles and used nuclear fuel management.

Prior to joining EPRI, Andrew served at the U.S. Department of State, investigated uranium environmental fate and transport on the U.S. Department of Energy's (DOE's) Savannah River Site, and worked at the U.S. Environmental Protection Agency as an AAAS science and technology policy fellow.

Andrew received a B.S. in Optics from the University of Rochester and a Ph.D. in Environmental Systems Engineering from Clemson University. He is a Certified Health Physicist and serves as Chair of the American Nuclear Society's Standards Board. In December 2023, Andrew was appointed to the DOE Fusion Energy Sciences Advisory Committee (FESAC).

**Derek Sutherland**
*Vice President R&D, Realta Fusion*

Dr. Derek Sutherland is the VP of R&D at Realta Fusion, a Wisconsin-based company focused on the development of high-field, compact, magnetic mirror fusion power plants. Previously, he worked at Zap Energy leading experimental physics on the FuZE-Q platform. He earned his Ph.D. at the University of Washington focused on the development of inductively sustained spheromak configurations for fusion energy applications. During his time at the University of Washington, he founded CTFusion, Inc. and served as the PI of ARPA-E-funded projects focused on advancing this novel fusion concept. Before his Ph.D., he received his B.S. in Nuclear Science and Engineering and in Physics from MIT and had the opportunity to work on a multitude of fusion concepts at MIT, General Atomics, General Fusion, and Los Alamos National Laboratories. His primary research interests include experimental, computational, and theoretical studies of magnetic confinement fusion concepts for both terrestrial power generation and space propulsion. He is currently serving as a member of the U.S. Department of Energy Fusion Energy Science Advisory Committee (FESAC) for a three-year term that began in January 2024 and has provided input into recent public forums focused on the development of the regulatory framework for fusion energy in the U.S. by the NRC.

**Duncan White**
*Senior Health Physicist, Agreement State Programs Branch, U.S. Nuclear Regulatory Commission (NRC)*

Duncan White currently serves as a Senior Health Physicist in U.S. Nuclear Regulatory Commission's (NRC) Office of Nuclear Material Safety and Safeguards (NMSS). Mr. White is the NRC's technical lead for the development of a regulatory framework for fusion machines and co-authored the agency's policy paper that provided regulatory framework options for fusion machines to the NRC Commission. Since joining the NRC in 1991, Duncan has served

in several technical and supervisory positions in NMSS, Office of Office of Federal and State Materials and Environmental Management Programs, Advisory Committee on Reactor Safeguards, Office of the Executive Director of Operations, Region I, and former Commissioner Lyons' staff. During his tenure at the NRC, Mr. White has been directly involved in the development of several NRC regulations and guidance documents for the safe and secure use of radioactive material. Since 2000, Duncan has been a certified health physicist.