

Opening Remarks

Michael Weber, NRC Public Meeting on
Additive Manufacturing for Reactor Materials & Components

November 28-29, 2017

8:00 AM – 5:00 PM

- Good morning, thank you for coming, and thank you for your interest in participating in this meeting. I am Michael Weber the Director of Nuclear Regulatory Research and it is a privilege to welcome you to this meeting today.
- One of the aspects that I thoroughly enjoy in working on research is the opportunity to learn about and understand cutting edge scientific and engineering information in partnership with our regulatory counterparts to accomplish NRC's nuclear safety and security mission. This meeting is a prime example.
- Welcome to this first NRC public meeting about plans for using additive manufacturing to produce systems, structures, and components for nuclear power reactors and other potential applications. For example, representatives of the nuclear industry, including licensees and vendors, have notified NRC that parts made using direct metal laser melting/sintering may be used in the operating nuclear power plant fleet as early as next year. We are working with our colleagues in NRR and NRO to make sure that the NRC will be ready to review such submittals for safety-significant regulatory applications. Therefore, we would like to understand your plans and the opportunities that you see for the use of additive manufacturing in civilian nuclear applications.
- I have great expectations for the success of this meeting. We are building on the catalyst created when a team from GE-Hitachi arranged a public meeting with NRC in June of this year to discuss general aspects of additive manufacturing. We are aware that other vendors are also considering similar applications. Our collective objective is to ensure that if such parts and materials are used in nuclear power plants that they are used safely and securely. To accomplish this objective, we need to have sufficient information about the safety characteristics and associated monitoring of parts and materials manufactured using additive manufacturing.

- We had the opportunity to meet with many of you at the ANSI Additive Manufacturing Standardization Collaborative Forum in September, at the meetings in Idaho sponsored by the US Nuclear Infrastructure Council (NIC) and Department of Energy (DOE) early October, at the Westinghouse Churchill facility later in October, at ASME meetings, and at the ASTM Symposium on Additive Manufacturing this month. We recognize and appreciate these interactions. Your willingness to share insights and plans with the NRC at this stage of deployment help us prepare and be ready to review.
- Our meeting during the next couple of days provides another opportunity to interact with you regarding additive manufacturing. We look forward to listening to presentations and discussing such topics as qualification and quality control, Non-Destructive Examination, and inspection, materials properties, cybersecurity, and reverse engineering to the extent that we can have these discussions in a public forum while protecting sensitive information.
- The first day of our meeting will mainly focus on industry activities and perspectives; during the second day, we will explore complementary government agency initiatives.
- We are excited to hear from the many organizations involved in Additive Manufacturing, including ANSI, ASME, ASTM, Concurrent Technologies, DOD Labs, DOE Labs, EPRI, EWI, FAA, GE-Hitachi, NASA, NEI, Novatech, NuScale Power, and Westinghouse, to mention a few.
- So engage, collaborate, share to the extent that you can and thank you again for your active participation. Together we achieve nuclear safety and security.