

FINAL AGENDA

ADDITIVE MANUFACTURING FOR REACTOR MATERIALS & COMPONENTS
PUBLIC MEETING (CATEGORY 2), NRC HEADQUARTERS, (ROOM TWFN-2B3),
11545 ROCKVILLE PIKE, NORTH BETHESDA, MD 20852

Tuesday, November 28, 2017		
Industry Activities and Perspectives		
Time	Presentation (#)/Title	Organization– Presenter
<i>(Session 1 Moderator: Amy Hull, NRC)</i>		
0800	(1.00) Opening Remarks.	NRC – Mike Weber
0815	(1.0) NRC’s AM Workshop: Meeting Logistics.	NRC - Rob Tregoning
0830	(1.1) AM for Reactor Materials & Components: Industry Perspective.	NEI – Mark Richter
0900	(1.2) ICME & Process Monitoring for Component Qualification via LPB-AM.	EPRI – Dave Gandy
0930	(1.3) Regulatory Considerations for AM Qualification and status of FAA AM Roadmap.	FAA - Michael Gorelik
1000	Break	
1030	(1.4) Industry Insights - Cybersecurity for Additive Manufacturing.	CTC – Scott Zimmerman
1100	(1.5) Reflections on Fatigue for AM Components.	EWI - Bill Mohr
1130	(1.6) Selecting the Correct Material and Technology for Metal AM Applications.	EWI - Frank Medina
1200	Lunch	
<i>(Session 2 Moderator: Carol Moyer, NRC)</i>		
1300	(2.1) Evaluation of Additively Manufactured Materials for NPP Components.	GEH – Myles Connor
1330	(2.2) The ‘Big Picture’ Vision for AM in Nuclear Industry.	WEC – Zeses Karoutas
1340	(2.3) Current Westinghouse Efforts.	WEC – Bill Cleary
1410	(2.4) Laboratory Testing & Evaluation of Unirradiated and Neutron Irradiated Additively Manufactured Alloys.	WEC – Paula Freyer
1430	(2.5) Additive Manufacturing for Nuclear Components.	Novatech – George Pabis; Craig Gramlich
1500	Break	
1510	(2.6) Additive Manufacturing for Reactor Materials & Components.	NuScale Power – Steve Wolbert
1540	(2.7) Metal Additive Manufacturing Innovations.	AddiTec – Brian Matthews
1555	(2.8) Analysis of Seeded Defects in Laser Additive Manufactured 300M Steel	DRDC –Shannon Farrell
1620	Summarize Day 1, Discussion, Capture Action Items	NRC & Participants
1630	Time Allowed for Public Comments	Public & NRC
1700	Adjourn for Day	NRC

ADDITIVE MANUFACTURING FOR REACTOR MATERIALS & COMPONENTS
PUBLIC MEETING (CATEGORY 2), NRC HEADQUARTERS, (ROOM TWFN-T2B3),
11545 ROCKVILLE PIKE, NORTH BETHESDA, MD 20852

Wednesday, November 29, 2017

Government Agency Initiatives		
Time	Presentation (#)/Title	Organization - Presenter
<i>(Session 3 Moderator: Christopher Hovanec, NRC)</i>		
0800	Summary of Day 1; Objectives & Guidance for Day 2	NRC
0815	(3.1) Rolls-Royce Nuclear Developments in AM.	Rolls-Royce – Dave Poole
0835	(3.2) Additive Manufacturing Initiatives.	DOE-NE AMM - Alison Hahn
0900	(3.3) GAIN Gateway for Accelerated Innovation in Nuclear.	ORNL- Andrew Worrall
0920	(3.4) AM Qualification Paradigm Similarities for Fuel & Components.	INL - Isabella van Rooyen
0945	Break	
1000	(3.5) Comparisons between 316L SS made using Multiple LPBF Systems.	NSWC – Sam Pratt
1030	(3.6) Qualification & Certification of Metallic Components for NAVSEA.	NAVSEA – Justin Rettaliata
1100	(3.7) Informatics in AM Qualification: Incorporating Databases, Simulation & Analysis.	NIST – Paul Witherell
1130	(3.8) Ultrasonic Additive Manufacturing & other AM Processes for Nuclear Component Manufacture.	ORNL/UTK – S. Suresh Babu
1200	Lunch	
<i>(Session 4 Moderator: Rob Tregoning, NRC)</i>		
1300	(4.1) Standardization in Additive Manufacturing: Challenges in Structural Integrity Assurance.	NASA-MSFC – Doug Wells
1330	(4.2) NDE & Inspection Challenges for Additively Manufactured Components.	NASA-WSTF – Jess Waller
1400	(4.3) Measurement Science for Metals-Based Additive Manufacturing.	NIST – Kevin Jurens
1430	(4.4) America Makes & ANSI Additive Manufacturing Standardization Collaborative (AMSC).	ANSI - Jim McCabe
1500	(4.5) ASME Additive Manufacturing Standards.	ASME-Kate Hyam
1520	Break	
1530	(4.6) BPTCS/BNCS Special Committee on Use of Additive Manufacturing.	NRC – Dave Rudland
1545	(4.7) The Status of Global Additive Manufacturing Standardization to Support Q&C.	ASTM - Mohsen Seifi
1615	(4.8) Topics of Interest for AM of Reactor Materials & Components.	NRC – Allen Hiser
1630	Discussion	Participants
1645	Time Allowed for Public Comments	Public and NRC
1700	Adjourn Meeting	NRC

Abbreviations used in Agenda:

AM	Additive manufacturing
AM-RMC	Additive Manufacturing for Reactor Materials & Components
AMSC	Additive Manufacturing Standardization Collaborative
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BNCS	Board of Nuclear Codes and Standards (ASME)
BPTCS	Board on Pressure Technology Codes and Standards (ASME)
CTC	Concurrent Technologies Corporation
DOE- NE/ AMM	Department of Energy Office of Nuclear Energy Advanced Methods in Manufacturing
DRDC	Defence Research and Development Canada
EPRI	Electric Power Research Institute
EWI	Previously known as Edison Welding Institute
FAA	Federal Aviation Administration
GAIN	Gateway for Accelerated Innovation in Nuclear
GEH	General Electric Hitachi
ICME	Integrated Computational Materials Engineering
INL	Idaho National Laboratory
LPB-AM	Laser Powder Bed – Additive Manufacturing
LPBF	Laser Powder Bed Fusion
NASA	National Aeronautics and Space Administration
NASA-JSC WSTF	NASA – Johnson Space Center White Sands Test Facility
NASA-MSFC	NASA - Marshall Space Flight Center
NAVSEA	Naval Sea Systems Command
NDE	Nondestructive evaluation
NEI	Nuclear Energy Institute
NIST	National Institute of Standards and Technology
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NSWC	Naval Surface Warfare Center, Carderock Division
ORNL	Oak Ridge National Laboratory
PBF	Powder bed fusion
Q&C	Quality Control
UTK	University of Tennessee, Knoxville
WEC	Westinghouse Electric Company