



Sodium Fast Reactor Technology Seminar February 18, 2015

**NRC Headquarters
Three White Flint
Conference Rooms C-03 and C-05**

<i>Time</i>	<i>Topic</i>	<i>Presenter(s)</i>
9:00 am	Introduction (FR concepts, advantages and challenges)	G. Flanagan, Oak Ridge National Laboratory (ORNL)
9:15 am	SFR Technology Overview <ul style="list-style-type: none"> • Neutronics, Sodium Coolant, Fuels • Reactor Design • Configurations (Pool, Loop) • Major Systems and Components • Reactor Core and Core Restraint System • Reactivity Control and Shutdown System • Reactor and Guard Vessels • Heat Transport Systems (Primary and Intermediate) • Decay Heat Removal Systems • Containment, I&C, and Other Systems 	T. Fanning, Argonne National Laboratory (ANL)
10:30 am	Break	
10:45 am	SFR Technology Overview - Cont	
11:30 am	Past and Present SFR Designs (EBR-II, FFTF, PRISM, TWR-P, 4S)	T. Sofu, Argonne National Laboratory (ANL)
12:15 pm	Lunch Break	
1:15 pm	SFR Safety <ul style="list-style-type: none"> • Safety Principles and Approach • Inherent Safety and Reactivity Feedback Mechanisms • Response to AOOs, Postulated Accidents, Local Faults, Sodium Accidents 	T. Sofu, Argonne National Laboratory (ANL)
1:45 pm	Past SFR Safety Testing Programs <ul style="list-style-type: none"> • EBR-II, FFTF, FBTA/WPF and TREAT tests 	T. Sofu, Argonne National Laboratory (ANL)
2:15 pm	U.S. SFR Licensing Experience (FFTF, CRBR, PRISM)	G. Flanagan, Oak Ridge National Laboratory (ORNL)



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2:45 pm	Factors that Impact Design Criteria for SFR <ul style="list-style-type: none">• Protection by Multiple Fission Product Barriers• Protection and Reactivity Control Systems• Fluid Systems• Containment• Additional Criteria	G. Flanagan, Oak Ridge National Laboratory (ORNL)
3:15 pm	Adjourn	