

October 17, 2000

MEMORANDUM TO: Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
Commissioner Merrifield

FROM: Janice Dunn Lee, Director /S/  
Office of International Programs

SUBJECT: VISIT OF VLADIMIR ASMOLOV, DIRECTOR FOR RESEARCH  
AND DEVELOPMENT OF THE RUSSIAN RESEARCH CENTER  
"KURCHATOV INSTITUTE", OCTOBER 23 and 24, 2000

Dr. Vladimir Asmolov, Director For Research and Development of the Russian Research Center (RRC, known also as the Kurchatov Institute) will meet on October 24, 2000, with Chairman Meserve and Commissioners Dicus, Diaz, and Merrifield. He will also meet with the EDO on October 23 and with the management officials in RES. Dr. Asmolov is in the U.S. to participate in the Water Reactor Safety Meeting.

Dr. Asmolov has long been associated with the NRC both as a member of the Joint Coordinating Committee on Civilian Nuclear Reactor Safety and as RRC program director for research work on severe accidents performed for NRC. In 1991, he spent six months on a training assignment in RES.

Gordon Fowler, OIP, and Thomas King, RES, will accompany Dr. Asmolov to his appointments.

Attachments: 1. Schedule for Dr. Asmolov's Visit  
2. Professional Biography  
3. Background and Talking Points

cc: SECY  
OGC  
EDO  
OPA  
OCA  
OCFO  
OCIO  
RES

CONTACT: G. Fowler, OIP  
415-2329

DISTRIBUTION:

ADAMS (IP-2A-42) JDLee, OIP EDoroshuk, OIP GFowler, OIP  
TKing, RES ASzukiewicz, RES RDHauber, OIP

DOCUMENT NAME: G:\GFJ\Asmolov Oct 00

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures

"N" = No copy

~~AL 103766102~~

OFFICE	OIP:Team A	OIP	DD:OIP	DAIR
NAME	GFowler	EDoroshuk	RDHauber	JDunnLee
DATE	10/17/00	10/17/00	10/17/00	10/17/00

OFFICIAL RECORD COPY

**SCHEDULE OF VLADIMIR ASMOLOV'S VISIT  
OCTOBER 23 and 24, 2000**

**OCTOBER 23**

9:30-10:00 am William Travers, EDO

**OCTOBER 24**

2:15-2:45 pm Commissioner Dicus

3:00-3:30 pm Chairman Meserve

3:45-4:15 pm Commissioner Merrifield

4:15-4:45 pm Commissioner Diaz

**PROFESSIONAL BIOGRAPHY: VLADIMIR ASMOLOV**

Vladimir Grigorievich Asmolov received his Master's Degree from the Moscow Power Engineering University in 1970, his PhD at the Kurchatov Institute of Atomic Energy in 1985, and his Doctor of Science degree in the Russian Academy of Sciences in 1995. He is currently Director for Research and Development of the Russian Research Center (RRC, known also as the Kurchatov Institute), and Director of the RRC Nuclear Safety Institute.

His articles have been published in a number of domestic and international scientific magazines and publications, including "Atomic Energy", "Nuclear Safety", "Nuclear Engineering and Design" as well as in the proceedings of international scientific and technical meetings and conferences. He is a member of the Board of Governors of the RRC and a member of the Russian Nuclear Society.

Dr. Asmolov was a member of the team at the RRC which designed the original "Sarcophagus" in the immediate aftermath of the Chernobyl accident. His first association with the NRC was as a member of the Joint Coordinating Committee on Civilian Nuclear Reactor Safety and subsequently as program director for the RRC of research work on severe accidents performed for NRC. In 1990, he spent six months on a training assignment in RES.

## **BACKGROUND AND SUGGESTED TALKING POINTS**

In a message, Dr. Asmolov suggested two topics for discussion with the Commissioners:

### **Status of NRC-Russian Cooperation in Nuclear Safety**

#### Background

Dr. Asmolov is program director for the RRC of research work on severe accidents performed for NRC. This work covers: 1) measuring mechanical properties of cladding from high-burn-up fuel and evaluating those results for applicability to the analysis of safety transients and 2) developing and demonstrating a 3-D reactor transient physics code. SECY-00-0072, STATUS OF NRC RESEARCH CONDUCTED BY THE RUSSIAN RESEARCH CENTER... discusses the current status of this work. (Work planned for 2000 is described in Attachment 1 and the benefits are described in Attachment 2. A complete description of the work is described in Attachment 1 to SECY-99-078.) Dr. Asmolov would like to discuss results to date and prospects for future work.

Supporting this severe accident work are tasks performed by the Nuclear Safety Institute (IBRAE) of the Russian Academy of Sciences, headed by Leonid Bolshov. Dr. Bolshov has visited the Commissioners on several occasions.

#### Suggested Talking Point

NRC has benefitted from your work on evaluating fuel cladding integrity and reactor transients. As you know, research budgets have been declining and it is necessary increasingly to "internationalize" support for safety research. The effort we are undertaking together is a good example of viability of this approach. NRC has found RRC's research results on postulated accidents to be useful for our codes, such as the FRAPTON fuel rod transient code.

### **Need to Update Safety Standards and Criteria Based on Recent Developments**

#### Background

(Dr. Asmolov did not elaborate on this topic in his message.)

#### Suggested Talking Point

NRC is addressing the issue of revising its regulations in an effort to move toward risk-informed, performance-based regulation. Probabilistic risk methodologies are important to this effort. Have you done work in this area?