ORNL
FOREIGN TRIP REPORT

ORNL/FTR-3801

DATE: November 1, 1990

SUBJECT: Report of Foreign Travel of R. C. Kryter, ORNL Senior Development Specialist, Reactor Aging Studies, Instrumentation and Controls Division

TO: A. W. Trivelpiece

FROM: R. C. Kryter

PURPOSE: To lead technical paper review meeting of the International Program Committee for the Sixth Symposium on Nuclear Reactor Surveillance and Diagnostics (SMORN VI)

SITE VISITED: 10/22/90 O.E.C.D. International Program Committee Members
Headquarters
Paris, France

F. Akerhielm (Sweden)	A. Kossilov (IAEA, Vienna)	Y. Shinohara (Japan)
W. Bastl (Germany)	L. Lupton (Canada)	J. Runkel (Germany)
K. Behringer (Switzerland)	R. Martinelli (Italy)	E. Turkcan (Netherlands)
J. P. Girard (France)	P. Nagel (NEA, Paris)	J. Rosén (NEA, Paris)

ABSTRACT:

The International Program Committee for SMORN VI met in Paris to organize the contributed technical papers into sessions and to appoint session chairmen. These objectives were accomplished without controversy. SMORN VI has the makings of a successful venture, with 80 papers submitted by authors from 20 countries throughout Europe, Asia, and the Western Hemisphere. For the first time in this symposium series, papers were received from Cuba and the U.S.S.R.

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REPORT ON TRIP TO PARIS, FRANCE TO PARTICIPATE IN MEETING OF THE INTERNATIONAL PROGRAM COMMITTEE FOR THE SIXTH SYMPOSIUM ON NUCLEAR REACTOR SURVEILLANCE AND DIAGNOSTICS (SMORN VI)

A meeting of the International Program Committee for SMORN VI (to be held May 19-24, 1991, in Gatlinburg, Tennessee, and cohosted by Oak Ridge National Laboratory and The University of Tennessee) was conducted by the traveler who, along with B. R. Upadhyaya of The University of Tennessee, Knoxville, is cochairman of this forthcoming international symposium.

A total of 80 papers were contributed in response to the widely distributed call for papers. Of these, the Program Committee voted to reject and redirect one (to the Pittsburgh meeting on In-Core Instrumentation) and to assign the remainder to nine oral sessions, one poster session, and one issues/viewpoints and open forum session, as indicated in Appendix A.

The Committee also appointed chairmen to the aforementioned sessions (Appendix B). The duties of the chairmen include preparation of session summaries (which are incorporated into the symposium conclusions) in addition to the usual functions of introducing speakers and otherwise managing the sessions for which they are responsible.

The 20 countries participating in SMORN VI and the number of papers contributed by each are tabulated in Appendix C. The traveler's itinerary is given in Appendix D.

SMORN VI has the makings of a successful venture, with papers of high technical quality covering a broad spectrum of subject areas. The symposium will also be well balanced with respect to the nations represented and is expected to benefit the DOE Advanced Reactors Program, particularly in the areas of intelligent display systems and advanced diagnostic systems for future nuclear power plants.

The traveler's leading of this International Program Committee meeting was, in retrospect, absolutely essential to the success of the SMORN VI symposium.

Also, personal conversation with Dr. J. Rosén, head of the Nuclear Sciences Division of the OECD Nuclear Energy Agency, subsequent to the Committee meeting affirmed the financial support of that organization for SMORN VI.

APPENDIX A

SMORN VI Session Titles

Session 1	Operational Experience with Surveillance and Diagnostic Systems
Session 2	BWR Stability Monitoring: Theory and Practice
Session 3	Leak and Boiling Detection in Fast Reactors
Session 4	Modeling and Monitoring the Motion of PWR and BWR Structures
Session 5a	Surveillance and Diagnostic Issues/Viewpoints
Session 5b	Open Forum
Session 6	Advances in Signal Processing Methods
Session 7	Parameter Estimation Techniques
Session 8	Poster Presentations
Session 9	Application of Neural Networks and Pattern Recognition
Session 10	Sensor Monitoring and Signal Validation Methods
Session 11	Advances in Machinery Diagnostics and Loose-Part Monitoring
Session 12a	Summaries Prepared by Session Chairmen
Session 12b	Symposium Conclusions

APPENDIX B

SMORN VI Session Chairmen

<u>Session</u>	<u>Chairman</u>	<u>Affiliation</u>
1	J. Thie	Consultant, Knoxville, Tennessee, USA
2	W. Bastl	GRS, Garching, Germany
3	R. Martinelli	C.R.E. Casaccia, Rome, Italy
4	D. Wach	GRS, Garching, Germany
5	R. Uhrig	UT-K/ORNL, Knoxville/Oak Ridge, Tennessee, USA
6	M. Kitamura	Tohoku University, Sendai-shi, Japan
7	K. Behringer	P. Scherrer Institute, Würenlingen, Switzerland
8	O. Glockler	CRIP, Budapest, Hungary
9	P. Bernard	CEN Cadarache, France
10	F. Akerhielm	Studsvik Energitechnik, Nyköping, Sweden
11	E. Turkcan	NERF, Petten, Netherlands
12	R. Kryter B. Upadhyaya	Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA The University of Tennessee, Knoxville, Tennessee, USA

APPENDIX C

SMORN VI First Authors, Identified by Country

<u>COUNTRY</u>	<u>No. of Papers</u>	
<u>ARGENTINA</u> J. Sidelnik	1	Comision Nacional de Energia Atomica, Buenos Aires
<u>AUSTRALIA</u> L. G. Kemeny	1	University of New South Wales, Kensington
<u>AUSTRIA</u> A. Kossilov	1	International Atomic Energy Agency, Vienna
<u>CUBA</u> O. D. Aguilar	2	Institute for Nuclear Science & Technology, Havana
<u>CZECHOSLOVAKIA</u> O. Matal J. Vavrin	2	Institute for Specialized Technique Research and Application, Brno Nuclear Research Institute, Rez
<u>GERMANY</u> B. J. Olma J. Prock R. Sunder D. Wach J. Voss A. Lattka A. Husemann J. Runkel D. Stegemann A. Vortriede U. Kunze P. Liewers	12	Gesellschaft für Reaktorsicherheit mbH, Garching Gesellschaft für Reaktorsicherheit mbH, Garching Gesellschaft für Reaktorsicherheit mbH, Garching Gesellschaft für Reaktorsicherheit mbH, Garching Interatom, Bergisch-Gladbach Siemens AG, Karlsruhe Universität Hannover, Hannover Universität Hannover, Hannover Universität Hannover, Hannover Universität Hannover, Hannover KKW Greifswald Zentralinstitut für Kernforschung Rossendorf, Dresden
<u>FINLAND</u> J. M. Eklund	1	Imatran Voima Oy, Vantaa
<u>FRANCE</u> B. Papin A. Trenty E. Bacconnet J.-C. Carre M. J. Martinez	5	Centre d'Etudes Nucleaires de Cadarache, Saint Paul lez Durance Electricite de France, Centre de Chatou Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette

<u>SWEDEN</u>	2	
F. Akerhielm		Studsvik AB, Nykoeping
J. Lorenzen		Studsvik AB, Nykoeping
<u>TURKEY</u>	1	
O. Ciftcioglu		Technical University of Istanbul, Istanbul
<u>U.S.S.R.</u>	2	
W. Dzwinel		Joint Institute for Nuclear Research, Moscow
Y. Pepyolshev		Joint Institute for Nuclear Research, Moscow
V.V. Tokarevsky		Ukranian Academy of Sciences, Kiev
<u>UNITED KINGDOM</u>	1	
P. J. Thomas		Risley Laboratories, Risley
<u>UNITED STATES</u>	22	
H. M. Hashemian		Analysis & Measurement Services Corporation, Knoxville, Tenn.
I. Kim		Brookhaven National Laboratory, Upton, N.Y.
M. L. Kantrowitz		ABB Combustion Engineering Nuclear Power, Windsor, Conn.
S. Abbey		Duke Power Company, Charlotte, N.C.
R. DeMuro		Duke Power Company, Charlotte, N.C.
M. Presnell		Duke Power Company, Charlotte, N.C.
J. Weiss		Electric Power Research Institute, Palo Alto, Calif.
S. Arndt		U. S. Nuclear Regulatory Commission, Washington D.C.
J. A. Mullens		Oak Ridge National Laboratory, Oak Ridge, Tenn.
T. Weir		ECAD Division, Pentek Inc., Coraopolis, Pa.
R. Walsh		Science and Engineering Associates, Albuquerque, N.M.
G. Zigler		Science and Engineering Associates, Albuquerque, N.M.
J. C. Robinson		Technology for Energy Corporation, Knoxville, Tenn.
I. E. Alguindigue		University of Tennessee, Knoxville, Tenn.
K. Korsah		University of Tennessee, Knoxville, Tenn.
L. F. Miller		University of Tennessee, Knoxville, Tenn.
B. R. Upadhyaya		University of Tennessee, Knoxville, Tenn.
R. E. Uhrig		University of Tennessee, Knoxville, Tenn.
J. R. Thomas		Virginia Polytechnic Institute and State University, Blacksburg, Va.
W. Bogard		Westinghouse Electric Corporation, Pittsburgh, Pa.

APPENDIX D

Itinerary

Saturday, 10/20/90	Travel from Oak Ridge, Tennessee to Paris, France
Sunday, 10/21/90	Arrive Paris
Sunday, 10/21/90	Day of rest
Monday, 10/22/90	Meeting of International Program Committee for Sixth Symposium on Nuclear Reactor Surveillance and Diagnostics (SMORN VI): select papers to be presented, organize topical sessions, and select session chairmen.
Tuesday, 10/23/90	Travel from Paris, France to Oak Ridge, Tennessee

END

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