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ORNL
FOREIGN TRIP REPORT
 ORNL/FTR-3785

DATE: October 10, 1990

SUBJECT: Report of Foreign Travel of J. D. White, ORNL Program Manager, Advanced Controls Program, Instrumentation and Controls Division

TO: A. W. Trivelpiece

FROM: J. D. White

PURPOSE: To attend the European Nuclear Conference (ENC'90)

SITES

VISITED: 9/24-27/90

Lyon Exhibition Center
Lyon, France

NOV 01 1990

ABSTRACT

While on vacation, the traveler attended the European Nuclear Conference in Lyon, France. This trip was part of an outside activity approved by DOE. The traveler is a consultant to Loyola College, serving as chairman of a panel to assess the state of the art in the controls and instrumentation technology in the European nuclear community. This study is being conducted by Loyola College under subcontract to the National Science Foundation. The traveler was surprised by the high level of automation claimed (by the company Siemens AG KWU) to be present in the German Konvoi nuclear power plants. The claim was that this was done to improve the safety of the plant by "keeping the operator out of the loop" for the first 30 minutes of some transients or accidents.

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REPORT ON TRIP TO LYON, FRANCE TO ATTEND THE EUROPEAN NUCLEAR CONFERENCE (ENC'90)

While on vacation, the traveler attended the subject conference. This conference was attended by approximately 2000 nuclear industry personnel. Approximately 400 exhibitors representing every major nuclear organization also attended. The traveler is a consultant to Loyola College to chair a panel to assess the state of the art in the controls and instrumentation technology in the European nuclear community. This is an outside activity for the traveler approved by DOE. The traveler made no presentation and conducted no business for DOE or Martin Marietta Energy Systems, Inc., during this period. There was no cost to DOE; all expenses were paid by Loyola College.

Summary of the Conference

The Conference was set up as plenary sessions, Technical presentations, poster sessions, and also exhibit booths portraying many technical product developments from every major European country. Unfortunately, many of the exhibits were manned by marketing people who could give only superficial explanations of their products in the I&C area or they were technical people with a limited technical perspective. The plenary sessions gave high-level overall views as to the present and future health of the nuclear industry. The technical presentations were not in areas of controls and instrumentation and were generally of little detail. Some of the poster sessions, however, were of considerable interest. They contained a lot of information about the subject of the assessment.

Recommendations

The traveler was surprised by the high level of automation claimed (by the company Siemens AG KWU) to be present in the German Konvoi nuclear power plants. The claim was that this was done to improve the safety of the plant by "keeping the operator out of the loop" for the first 30 minutes of some transients or accidents. This is contrary to the design goal of some nuclear plant concepts to get the operator intimately involved in the first part of any transient, giving him a myriad of information aids to ensure that he follows procedures. The traveler recommends that DOE programs associated with nuclear reactor design, operation, or analysis look further into the Siemens approach.

APPENDIX 1

Itinerary

September 21, 1990	Travel from Knoxville, Tennessee, to Lyon, France
September 22, 1990	Arrive Lyon, France
September 23, 1990	Registration and Reception at ENC'90
September 24-27, 1990	Attendance at ENC'90
September 28, 1990	Travel from Lyon, France, to Knoxville, Tennessee

APPENDIX B

Persons Contacted

No person-to-person meetings of any kind were arranged. During the poster sessions, however, the traveler did enter into technical discussions with the speakers listed below:

Mr. Kare Hannerz	ABB, Vasteras, Sweden
Mr. Werner Aleite	Siemens AG KWU, Erlangen, Federal Republic of Germany
Mr. Horst Hofmann	Siemens AG KWU, Erlangen, Federal Republic of Germany
H. Stimler	Siemens AG KWU, Offenbach, Federal Republic of Germany
Mr. Jean Peltier	CEA Institut de Protection et de Surete Nucleaire IPSN, France
Mr. A. Poujol	Commissariat a l'Energie Atomique CEN Cadarache, France
Mr. Robert Berglund	GE Nuclear Energy, U.S.A.
Mr. James Quinn	GE Nuclear Energy, U.S.A.

APPENDIX C

Document Received

The traveler received one copy of the ENC'90 ENS/ANS - FORATOM Conference Transactions. This consists of 2467 pages bound as four volumes.

- END -

DATE FILMED

11 / 20 / 90

