IN MEMORY OF NOEL AMHERD

Noel A. Amherd, the prime mover at the Electric Power Research Institute (EPRI) for the development of the lithium blanket module (LBM), died December 24, 1985, in a swimming accident in San Diego. He is survived by his wife Charlene, children Alicia and Kevin, parents Frances and Lawrence, and sister Andre Crawford.

Noel began his professional career as a member of the aerospace and mechanical sciences faculty at Princeton University where he specialized in laser/matter interactions. Realizing the opportunity to support key fusion research, especially conceptual fusion reactor designs, which would identify critical path technical and engineering issues, he then spent the next 8 years as a fusion program manager at EPRI. Notable and pioneering projects that he sponsored include the first complete laser inertial fusion system design, low-activation materials investigations, and the LBM development. Two years ago, when EPRI began stressing work in near-term issues that were currently confronting its utility sponsors and began decreasing its long-term advanced technology research. Noel joined the TITAN Systems, Inc., Advanced Technology Division in the San Francisco Bay area. Here, until his untimely death, he specialized in technology assessments and R&D planning for various laser-, particle-, and microwave-directed energy sources for the Strategic Defense Initiative.

The development of the LBM was one of Noel's major technical achievements. Early in 1977, Daniel Jassby of Princeton Plasma Physics Laboratory pointed out the value of a blanket module on the upcoming Tokamak Fusion Test Reactor (TFTR). Noel seized upon the concept realizing that an LBM could serve three important functions in the development of fusion as an energy source: It would provide confirmatory technical data, it would start the fusion community thinking about the engineering aspects of fusion development, and it would afford the utilities a means to meaningfully participate in the national fusion program. A six-month planning study provided the justification and approach to the full-scale EPRI LBM program, which to date has expended approximately $3.5 million on a three-phase effort: (a) design: October 1977–June 1983, (b) construction: June 1983–March 1985, and (c) experimentation: March 1985–present. The latter began with the point source neutronics experiments at the LOTUS faciity of the Ecole Polytechnique Federale de Lausanne and will continue with neutrons from D_2 experiments in TFTR expected in 1987.

Those of us who have had the good fortune to work closely with Noel know how truly exceptional he was. His talents spanned the technical to the arts. His demand for excellence and dedication was high, and he personally set the example. He loved challenges, and the one afforded by an initially skeptical technical and institutional community to the LBM concept was perhaps the largest challenge that he encountered. The Tuesday afternoon session served as a testament to his success. We all truly miss him.