

May 17, 2000

MEMORANDUM TO: Eric Leeds, Acting Chief
Licensing and International
Safeguards Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

THRU: Charles W. Emeigh, Chief */RA/*
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FROM: Harry Felsher */RA/*
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SUBJECT: TRIP REPORT: APRIL 25 THROUGH MAY 5, 2000, ANS-8.19
WORKING GROUP MEETING AND LANL ADVANCED CRITICALITY
EXPERIMENTS COURSE

During the last week of April 2000, Harry Felsher of the Licensing and International Safeguards Branch attended the ANSI/ANS-8.19 Working Group meeting in Santa Fe, New Mexico. During the first week of May 2000, he attended the LANL Advanced Criticality Experiments course in Los Alamos, New Mexico. The purpose of the trip was to resolve comments on the proposed revision to ANSI/ANS-8.19, "Administrative Practices for Nuclear Criticality Safety" and attend the LANL course.

ANSI/ANS-8.19 Working Group Meetings on April 26 through 27, 2000

The Chairman of the Working Group, Bill Carson (BWXT), met with two current members of the Working Group, Jim Baker (LANL) and Harry Felsher (NRC), and the previous Chairman of the Working Group, Dave Smith (LANL, Retired). The meetings took place at the residence of Dave Smith in Santa Fe, New Mexico to facilitate his participation. During the meetings, the participants resolved the comments from the ANS-8 ballots and gained insight from Dave Smith regarding the reasons for the original language in the standard. Based on the meetings, a revised draft of the standard will be sent to ANS-8 for balloting after the proposed revisions are reviewed by the rest of the Working Group through e-mail communications. In addition, Harry Felsher will assist Bill Carson in preparing for the ANS Criticality Safety Division poster session at the ANS Meeting to be held in Washington, D.C., in the Fall of 2000.

LANL Advanced Criticality Safety Experiments Course on May 1 through 5, 2000

The instructors in the course were members of the LANL nuclear criticality safety staff and criticality experiments facility staff. The ten students in the class were from DOE sites, DOE area offices, and the NRC. The course consisted of two parts. The mornings consisted of lectures and discussions on a variety of topics, including a tour of operations, while the afternoons consisted of hands-on criticality safety experiments and demonstrations. The topics discussed included ANS standards, double contingency principle, hand-calculations, nuclear criticality process accidents, and nuclear criticality safety evaluations. The experiments and demonstrations included remote uranium foil experiments with the PLANET machine, solution experiment with the SHEBA machine, and demonstrating the effects of adding moderating material around fissile material.

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