

Lewis report recommendations would have an impact on Fiscal Year 1979 and 1980 NRC programs.

► Send a copy of the Lewis report to the 3000 to 3500 prior recipients of WASH-1400.

In the longer term, Hendrie said that NRC is "trying to familiarize more of its staff with the techniques used in risk assessment in order to be able to make some application of this in due time in the licensing process," as the Lewis report recommends. "Even where the data base is not really adequate to give you any sort of decent precision in the final probability number or consequence number it is a very useful technique for looking at relative risks." Hendrie also added that the NRC's risk-assessment group in its office of research, which has existed since WASH-1400 was published, has been active in the development of risk-assessment methodology. This effort is expected to be amplified now.

Some feel the "damage" of the Rasmussen report has already been done. "It was widely used as a propaganda item by AEC and NRC," said Lewis. The study was timed, for example, to come out during the Congressional review of the Price-Anderson Act in 1975, which sets a limit of liability for owners of nuclear reactors in case of an accident. William Anders, then chairman of the NRC, wrote to Congress at that time, "The Commission believes that the Reactor Safety Study report provides an objective and meaningful estimate of the public risks associated with the operation of present-day light-water reactors in the United States." Rasmussen himself also appeared before the Congress to plead his case.

Other responses. The reaction to the Lewis report outside the NRC is mixed. Rasmussen generally agrees with the findings of the Lewis group, but feels that some of the conclusions may have been "overstated" and attributes the few areas where he actually disagrees with the report to individual judgement.

The most outspoken critic of the Rasmussen study is the Union of Concerned Scientists, a Cambridge-based antinuclear organization. The UCS published a 200-page critique of the Reactor Safety Study last year and was given the opportunity to address the Lewis committee several months ago. At that time Daniel Ford, executive director of UCS, asked that the committee look into certain documents in the Rasmussen study files that he believes support his claim that the Reactor Safety Study was systematically designed and performed to reach the predetermined conclusion of reactor safety. During the course of his testimony Ford singled out as an example the charge that the Rasmussen study team considered a dishonest approach to the treatment of the quality-assurance/quality-control problem and then su-

pressed a controversial chapter on the subject that had been intended for inclusion in the final report. The Lewis committee dismissed these charges saying that this incident was atypical of the general level of integrity of the Rasmussen study and that there was insufficient evidence to support the claim that the omitted chapter was, in fact, suppressed.

The NRC currently has no plans to redo the Reactor Safety Study, mainly because it was the conclusion of the Lewis group that a new study would not be much more useful than WASH-1400. Frank von Hippel, a Princeton University physicist who served on the review team, went beyond this and expressed doubt that the risk-assessment technique could yield a credible upper bound on the probability of a reactor-core meltdown that is any more reliable than experience has shown.

Exactly what effect the publication of the Lewis report will have on present attitudes toward nuclear reactor safety is unclear. John Lamarsh, head of the department of nuclear engineering at Polytechnic Institute of New York, where he teaches a course on reactor safety, feels that WASH-1400 was a valuable first effort, and that criticizing it in the light of our present knowledge is like finding fault with the Wright brothers' airplane. "The study of reactor safety is an ongoing effort," he said. At the other extreme, Ford believes that it is like taking the bible away from the religion. Lewis himself feels that "the entire [nuclear] industry and the entire policy-making apparatus has been influenced by the results of the [Rasmussen] report." And yet, asked whether he can learn if reactors are acceptably safe from WASH-1400, he responded, "I can't; I don't learn it from WASH-1400." —MEJ

Leon Lederman to be director of Fermilab

Leon Lederman of Columbia University, a noted high-energy experimenter, is to be the new director of Fermilab. Because of previous commitments, Lederman will not be at Fermilab full time until 1 June 1979. Meanwhile, he will be Director Designate and expects to be involved in major policy questions right away.

Lederman succeeds Robert R. Wilson, who resigned in February (PHYSICS TODAY, March 1978, page 102) because he felt Fermilab funding was inadequate. Wilson had served as director from the beginning of the lab. He intends to continue active participation in Fermilab while at the same time holding an appointment at the University of Chicago where he was recently named the first Peter B. Ritzma Professor in the College. Wilson says he expects to devote his efforts as Ritzma professor "to the search for a deeper understanding of the human



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origins and relationships of science." At Fermilab Wilson will continue to work on the design and construction of the Energy Doubler/Saver (also known as the "Tevatron;" see PHYSICS TODAY, October 1977, page 23).

Philip V. Livdahl will continue to serve as Acting Director of Fermilab until Lederman joins Fermilab full time.

Lederman is the Higgins Professor of Physics at Columbia and director of Nevis Laboratories in Irvington, N.Y. In 1977 he and his collaborators, working at Fermilab, reported the discovery of the T particle and T' particles (PHYSICS TODAY, October 1977, page 17); their existence suggests the existence of a fifth kind of quark. This year, both the T and T' have been observed at the DORIS storage ring at DESY in Hamburg. One of Lederman's commitments for this winter and the following spring is to prepare a new experiment to be run at the new Cornell storage ring (expected to operate next summer); the equipment now being built at Nevis is designed to search for excited states of the T .

Lederman is also involved in maintaining the vitality of the Nevis lab, which until this year had large efforts in medium- and high-energy physics. With the shutting down of the Nevis synchrotron last July, Lederman told us that Nevis is suffering from a certain lack of flexibility in supporting its operations. However some funds have been requested for medium-energy physics from NSF, and NSF support for high-energy physics is continuing at essentially the same level it has been. —GBL

Soviet dissidents' mail fails to go through

Growing concern over the fate of dissident scientists in the Soviet Union has prompted many American scientists to