

**OPENING REMARKS
BY
CHAIRMAN NILS J. DIAZ
U.S. NUCLEAR REGULATORY COMMISSION
AT THE
25TH ANNIVERSARY TMI-2 ACCIDENT PRESENTATION
9:30 A.M. WEDNESDAY, MARCH 3, 2004
NRC AUDITORIUM**

Good morning, ladies and gentlemen. I am pleased to welcome you to this special presentation marking the 25th anniversary of the accident at the Three Mile Island Unit 2 nuclear power plant near Harrisburg, Pennsylvania. Joining me on the platform this morning are my Commission colleagues Edward McGaffigan and Jeffrey Merrifield; Dr. William D. Travers, NRC's Executive Director for Operations; and NRC Historian J. Samuel Walker, whose book entitled "Three Mile Island - A Nuclear Crisis in Historical Perspective" has been published by the University of California Press. Our purpose this morning is take a retrospective look at some of the key events of the accident as seen through the eyes of a professional historian; to discuss some of the significant regulatory improvements that the NRC implemented following the accident from the perspective of the Commission and NRC senior staff; and ultimately to ensure that the lessons so painfully learned in the immediate aftermath of the accident remain in sharp focus 25 years later for members of the NRC staff, who share our continuing responsibility to protect the public health and safety and the environment from the potential hazards associated with the commercial uses of nuclear energy.

On the morning of March 28, 1979, no one, not even the employees of Metropolitan Edison Company on site at Three Mile Island who were trying to understand and address a series of confusing and anomalous alarms registering on their control room annunciators, recognized that a nuclear accident of historic proportions was well underway. Indeed, few experts thought that such a severe accident was ever likely to happen. Statistical analysis had estimated that the probability of a major accident was one in three thousand reactor-years of operation; the commercial nuclear power industry's safety record was perceived to be outstanding; and the Atomic Energy Commission, and its successor agency, the Nuclear Regulatory Commission, had put in place a regulatory program based on the concept of defense-in-depth, in which a series of redundant engineered safety features in theory would either prevent altogether a major accident or mitigate its consequences. Confidence in the technology was so high that the NRC, the industry, and State and local governments had devoted only minimal efforts to such important non-hardware issues as emergency planning, the potential for human error, operator training, and what we today call safety culture or safety management. Yet within a few days after the onset of the accident, it became clear that an unthinkable severe accident, in the form of a seriously damaged TMI core, had happened within the first few hours of the accident on March 28. A safety system can not perform its intended safety function if it is not allowed to operate. Defense-in-depth was seriously challenged; however, the

TMI containment, the third barrier of defense-in-depth, was called upon and performed its vital role.

Was the TMI-2 accident inevitable, given the complex technology involved in producing electricity from nuclear energy? In a very real sense, the answer is no - - subsequent investigation revealed that at various points as the accident unfolded, effective measures could have been taken to bring the reactor under control and break the accident sequence. That these measures were not taken had less to do with the technology than with human error driven by a lack of understanding, or, at times, a profound misunderstanding of what was taking place in the core during the first few hours of the accident. In another sense, however, the accident may have been initiated by the widespread overconfidence -- complacency was the word choice of the Rogovin report-- in both industry and government that the redundant engineered safety features would work as designed and that successful operating experience in the past signaled competent management at nuclear power plant sites. Neither assumption would prove to be true. The lessons were painful but we all did learn, and I am confident we learned well: "Trust, but verify." The work goes on, technology has improved, and so have we.

But, as the historian Arthur M. Schlesinger once noted, "Science and Technology revolutionize our lives, but memory, tradition, and myth frame our response...." Consequently, the 25th

anniversary of the TMI-2 accident offers a unique opportunity to revisit the causes and consequences of the accident. It is also a fitting point in time to renew our commitment to the NRC's primary objective -- the protection of the public health and safety -- and to remind ourselves once again that we have new challenges to meet and old promises to keep to the American people.

We begin our program this morning with a historical overview of the accident. As the author G.K. Chesterton suggested, "the disadvantage of men not knowing the past is that they do not know the present. History is a hill or high point of vantage, from which men see the town in which they live or the age in which they are living." Our man on the hill is Sam Walker, NRC's historian. I do not know what Sam as a child wanted to be when he grew up, but I can tell you what he has become -- one of the Nation's foremost experts in the history of nuclear regulation in general and the TMI-2 accident in particular. His new book represents the most comprehensive look at the historical impact of the TMI accident produced to date. Please join me in welcoming Dr. J. Samuel Walker.