



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200

Washington, D.C. 20555-0001

E-mail: opa.resource@nrc.gov

Site: <http://www.nrc.gov>

No. S-09-021

**PREPARED REMARKS OF
NRC COMMISSIONER DALE E. KLEIN
FEDERAL AVIATION ADMINISTRATION
RENAISSANCE WASHINGTON HOTEL
AUGUST 13, 2009**

Thank you, and good morning everyone. I am pleased to be with you this morning for the opening day of your 2009 Leadership Conference and honored to be asked to be your plenary session speaker for this session of the conference.

I confess that it is also a delight to be speaking to a whole room full of fellow regulators. We are a unique and relatively rare breed that, by the nature of our work, most often comes to the forefront of national attention following a disaster, accident, near-accident, or other unwished for consequences, while our successes go unnoticed and are often taken for granted. I regret to say that I have no cure to offer for this phenomenon. That statement probably doesn't surprise you, but my next one might – that as regulators we may need to endure periods of intense public criticism to improve our regulatory performance and the performance of the industries we regulate. What I hope to do this morning is to share some insights with you from the NRC experience that might be helpful to you as FAA regulators. Then I will address any questions you may want to ask.

Both of our organizations use essentially the same tools – inspection, enforcement, rulemaking – to achieve our regulatory objectives. Although we regulate totally different industries, maintaining an appropriate relationship between the regulator and the regulated is an issue for both of us. And the important role of “safety culture” in the industry, and in our own organizations, is a concern we share in common.

One term that does not appear in our mission statements that I believe is vital to successful regulation is public confidence. Being the recognized world leaders in our respective regulatory fields does not help either of us much if the public has lost confidence in either the regulator or the regulated. For our two organizations, an accident anywhere in the world is, in effect, an accident everywhere given the impact it has on public confidence.

For the NRC, the greatest blow to public confidence was, of course, the 1979 accident at the Three Mile Island nuclear power plant... which nearly crippled the entire nuclear power industry and brought significant changes to the NRC. TMI is important because it revealed some of the regulatory and industry weaknesses that are inherent in a regulatory environment. More importantly, it showed that accidents can be an opportunity to focus on improvements in performance.

As a result of the accident, public criticism of the NRC and the industry reached unprecedented levels and the industry cancelled many of its plans to build new reactors in the U.S. It is only now, more than three decades later, that applications for new plants are being submitted. But there were useful lessons that we learned from that accident that still resonate today not just for the NRC but for other regulatory entities.

The most important lesson from TMI was that success breeds complacency, and complacency is the primary enemy of an effective regulatory program. Several decades of accident-free industry performance and a set of engineered safety features, including the use of concrete containment vessels, redundant safety systems, and other features, created the false impression that a serious accident was unlikely. Both the regulator and the regulated industry had become overconfident in the technology itself, and in technology's ability to provide safety automatically. The NRC also assumed that the mere existence of industry training programs ensured that plant operators had all the necessary information to operate the plant successfully. TMI would show that all of these assumptions were unfounded.

All of this may have a familiar ring to you in your own experience of regulating the airline industry. Accidents can happen, they tend to have multiple causes, human performance is almost always an issue, and even the best equipment can fail under certain conditions. The question remains how to prevent these things from occurring over and over again. And I believe that two of the essential ingredients in addressing this question involve the strength of the regulator, and the ability of both the regulated and the regulator to coordinate action to improve performance and prevent accidents.

The NRC responded initially to the TMI accident with a blizzard of new prescriptive regulatory requirements. Our regulatory emphasis shifted heavily toward maintenance and training, and we sought effective ways to address safety culture issues. In the late 1990's, we began to adopt what we called a "risk-informed and performance-based" approach to regulation, where we sought to focus our regulatory attention on the most safety-significant issues and relaxing, whenever warranted, the very conservative prescriptive rules adopted in the immediate aftermath of TMI. Plants that had performance issues were subject to more frequent inspection. In general, the NRC has consistently sought to be a tough, firm, but fair and predictable regulator ever since the TMI accident, but has also sought to be flexible enough in its regulatory approaches to respond to developments in the nuclear industry.

The nuclear industry also responded effectively to the TMI accident. It recognized that a safe plant was also most likely to be a reliable plant in terms of electrical generating capacity. Ever since 1979 and particularly since the 1990's, the industry has achieved steady improvement in plant performance, a remarkable achievement for an industry once considered to have no

future. One important measure of the industry's desire to improve was the creation of an organization called the Institute of Nuclear Power Operation, or INPO. This organization is a private entity funded by the utilities that own and operate individual nuclear power plants to promote excellence and a strong safety culture industry-wide. INPO is, in effect, an instrument for industry self-regulation that relies on peer pressure as its most compelling regulatory tool. I attribute much of the industry's improvement to INPO's efforts. I don't know whether this is something that could be replicated by the airlines, but I mention it as something that you and the industry you regulate might consider.

One other point I want to make about accidents, near accidents, and other regulatory mishaps is the opportunity they provide to assess the internal strengths and weaknesses of our own organizations. After an accident, agency morale may sag, and it is important that the agency's leadership recognize and address the problem. At the NRC, for example, we constantly emphasize the professionalism of the NRC staff, the agency's high standing in the world of nuclear regulation, and the importance of our mission goals of safety and security in our internal communications.

We encourage feedback, even disagreement, from the staff and have encouraged communication up, down, and across the organization. The NRC Chairman, Commissioners, and senior agency staff participate directly in agency-wide and office All Hands meetings, email announcements, and other agency-wide events. I believe that these efforts have kept agency morale high and contributed directly to NRC's selection twice in the last four years as the "Best Place to Work in the Federal Government."

Communication, of course, may have other purposes than simply promoting better morale or generating a team spirit. It can also serve to remind our employees that the American people are counting on them to remain vigilant and to perform their regulatory roles at the highest level of quality. Recently, the NRC observed the 30th anniversary of the TMI accident. It may seem odd to you that we would give such prominence to an event that had such a devastating impact on public confidence in the NRC and the nuclear industry. We wanted to do more than just acknowledge that TMI was a major turning point in the history of nuclear regulation in this country. We were also very concerned that with the retirement of many of our most experienced staff and the hiring of hundreds of new employees, most of whom were born long after the TMI event, that we were in danger of losing our corporate memory of this most significant event in our history. So we held a seminar featuring the key personnel who were on the scene to share their first-hand experiences and perspectives on the accident and to bring the event back to life, so to speak, for our newest employees.

As I noted at the beginning, accidents, near accidents, and loss of public confidence can be an opportunity to improve performance by both the regulator and the regulated. I hope that I have shared with you some of our experiences that might be useful to you as fellow regulators.

Thank you for the opportunity to speak at your conference. I look forward to your questions.

