May 27, 2015

Mark A. Satorius, Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

      SUBJECT: Lessons Learned Program

Dear Mr. Satorius:

I recall sitting in the Commission briefing room not too many years ago and listening to then EDO Luis
Reyes outline the concept that soon thereafter became the NRC's lessons learned program. It was, and
remains, a worthwhile effort. I have made a point of reading the publicly available reports issued by the
program for their useful insights.

In reading the most recent report on the lessons learned program (SECY-14-0101 dated September 26,
2014, ML14175A780), it seemed that the value of the effort was diminished by the scant documents
reviewed for lessons. That report examined merely seven documents: two Office of the Inspector General
reports, a Department of Energy report, a Nuclear Fuel Services report, and three internal NRC staff
reports. While it's good on one hand to have few incidents warranting further evaluation, it becomes more
challenging to extract lessons from so few data points.

Management Directive 6.8 (ML062220175) covers the NRC's lessons learned program. The procedure
implicitly assumes that only negative lessons exist. In other words, it seeks to identify things that could be
done differently in the future to avoid additional problems. That certainly is a laudable objective, but it
seems only part of the task. While it is desirable to know how to steer away from troubled seas, it's
equally desirable to know how to chart a course for calm seas. The NRC's lessons learned program would
be enhanced by identifying processes to emulate for repeated success in addition to processes to exorcise
to avoid recurrence of negative outcomes. There are good and bad lessons from which much can be
learned.

On way to tweak Management Directive 6.8 to obtain this enhancement would be to broaden the universe
of reports reviewed by the lessons learned program, expand the learnable items extracted from the reports,
and analyze the extracted items in a way that is comparable to the NRC's analysis of allegations.

Broaden the Universe of Reports Reviewed
Part II of the Management Directive 6.8 Handbook essentially limits the scope of reports reviewed by the
lessons learned program to those issued by the Office of the Inspector General (OIG), the U.S.
Government Accountability Office (GAO), and the NRC's Accident Review Groups, Incident Inspection
Teams, and formal Lessons Learned Task Forces.

OIG reports are included in this scope. The most recent lessons learned report listed only two OIG reports between August 2013 and May 2014. Yet the OIG webpage (see http://www.nrc.gov/reading-rm/doc-collections/insp-gen/index.html) lists 19 audit reports during that period. Similarly, the most recent lessons learned report listed a single GAO report. Yet the GAO webpage (see http://www.gao.gov/browse/a-z/Nuclear_Regulatory_Commission_[NRC],_Independent_Agencies) shows it issued four reports during that period covering the NRC.

The lessons learned program should review all OIG and GAO reports, not just a subset. And the scope should be broadened to include reports issued by the Congressional Research Service as well as non-profit organizations. For example, UCS respectively recommends that the lessons learned program review our annual reports on the NRC and nuclear power plant safety.. Our reports include two chapters specifically designed to identify ways to sustain and improve NRC's performance. One chapter describes positive outcomes achieved by the NRC and identifies the process features contributing to these successes. Another chapter describes negative outcomes and identifies the process shortcomings contributing to these outcomes. There are good and bad lessons that NRC can learn from, but only when it looks for them.

Extract Positive as well as Negative Lessons Learned
The review of documents by the lessons learned program should extract their positive and negative observations. This task should be simple extraction of the conclusions and recommendations made in the reports reviewed, whether positive or negative. The result would be a database or matrix of observations made about the NRC's performance.

Model Analysis on Method the NRC Uses to Analyze Allegations
No attempt should be made by the lessons learned program to analyze observations extracted from a single report. Instead, the lessons learned program should analyze the totality of observations extracted from reports issued during the prior period for emerging trends. A model for conducting this analysis could be the annual evaluation of allegation trends and statistics performed by the NRC staff (see http://www.nrc.gov/about-nrc/regulatory/allegations/guidedocs.html). Rather than examining a single allegation and trying to divine what it reveals about safety culture, the NRC staff evaluates all the allegations for both a single nuclear plant site and the entire fleet. That holistic analysis provides more meaningful insights on underlying trends. By applying a comparable analytical approach to the collective positive and negative observations, the lessons learned program would be able to identify common threads.

This annual analysis could be complemented by looking back at prior lessons learned program reports. Reviewing the prior reports would have two objectives: (1) to determine whether past positive observations have been replicated, perhaps broadened, and hopefully have not faded, and (2) to determine whether measures undertaken to redress past negative observations have achieved their expectations without unintended consequences.

The NRC's lessons learned program is a worthwhile effort. The return from that resource investment could be increased by expanding the program's scope to assess more reports and to extract positive lessons learned, and patterning the analysis after that employed by the NRC to analyze allegation statistics for emerging trends.

Sincerely,

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