UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

ACRSR-2218

October 23, 2006

Mr. Luis Reyes
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

SUBJECT: DRAFT REVISION 1 TO REGULATORY GUIDE 1.200 (DG-1161), "AN APPROACH FOR DETERMINING THE TECHNICAL ADEQUACY OF PROBABILISTIC RISK ASSESSMENT RESULTS FOR RISK-INFORMED ACTIVITIES," AND SRP SECTION 19.1, "DETERMINING THE TECHNICAL ADEQUACY OF PROBABILISTIC RISK ASSESSMENT RESULTS FOR RISK-INFORMED ACTIVITIES"

Dear Mr. Reyes:

During the 536th meeting of the Advisory Committee on Reactor Safeguards, October 4-6, 2006, we met with representatives of the NRC staff to discuss draft Revision 1 to Regulatory Guide 1.200 (DG-1161), "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-informed Activities," and a draft revision to Standard Review Plan (SRP) Section 19.1, "Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-informed Activities." We also had the benefit of the documents referenced.

RECOMMENDATIONS

1. Revisions to Regulatory Guide 1.200 and SRP Section 19.1 should be issued for use after reconciliation of public comments.

2. A regulatory guide on how to perform sensitivity and uncertainty analyses should be developed.

DISCUSSION

Regulatory Guide 1.200 and the associated SRP Section 19.1 describe an acceptable approach for determining whether the quality of a probabilistic risk assessment (PRA) that is used to support regulatory decisionmaking is sufficient to provide confidence in the results. In addition to their use in the regulation of operating reactors, the revised documents will support new

reactor licensing activities and are planned to be issued by March 2007. They are intended to reflect guidance provided by standard setting and nuclear industry organizations and to be consistent with Regulatory Guide 1.174.

We reviewed the original version of Regulatory Guide 1.200 in September 2003. That version of the Guide was issued for trial use in February 2004. Together with industry, the staff conducted five pilot applications and has incorporated lessons learned into Revision 1 of the Guide. The revised documents were posted for public comment in mid-September. Because the staff has already had numerous interactions with the public regarding this Guide, it does not expect many additional comments. We would like to be informed of any significant changes made to this Guide and the associated SRP Section as a result of public comments.

In addition to a number of wording and other minor changes, Regulatory Guide 1.200 has been revised to include explicit definitions of core damage frequency and large early release frequency; additional information for internal flood, internal fire, and external hazard technical elements; and additional clarification of the regulatory position regarding consensus PRA standards. The revised SRP Section now includes descriptions of historical events in addition to a number of clarifications consistent with Regulatory Guide 1.200. We agree with these changes. The revised Regulatory Guide 1.200 and associated SRP Section 19.1 should be issued for use after reconciliation of public comments.

In our report dated September 22, 2003, we stated that we agreed with the staff's position that it would be more appropriate to discuss methods for performing uncertainty and sensitivity analyses in a separate regulatory guide than to include such a discussion in Regulatory Guide 1.200. In its November 7, 2003 response to our report, the EDO stated that the staff expected to provide a draft of such a Guide for our review in early 2004. We continue to believe that there is a need for guidance on acceptable methods for performing uncertainty and sensitivity analyses. The staff should develop a regulatory guide to provide such guidance in a timely manner.

Sincerely,

/RA/

Graham B. Wallis
Chairman

References:

1. Memorandum from Jimi T. Yerokun, Chief, Risk Applications and Special Projects Branch, Division of Risk Assessment and Special Projects, Office of Nuclear Regulatory Research, to John T. Larkins, Executive Director, Advisory Committee on Reactor Safeguards, "Request for ACRS Review of Regulatory Guide 1.200 (DG-1161), 'An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities,' and SRP 19.1, 'Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities'," September 1, 2006.

2. Report from Mario V. Bonaca, Chairman, Advisory Committee on Reactor Safeguards, to Nils J. Diaz, Chairman, U.S. Nuclear Regulatory Commission, "Draft Final Regulatory Guide x.xxx, 'An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities' (formerly DG-1122)," September 22, 2003.

3. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," November 2002.

4. Letter from William D. Travers, Executive Director for Operations, U.S. Nuclear Regulatory Commission, to Mario V. Bonaca, Chairman, Advisory Committee on Reactor Safeguards, "Draft Final Regulatory Guide x.xxx, 'An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities' (Formerly DG-1122)," November 7, 2003.