



Senior Management Review of the Groundwater Task Force Report

Led by Martin J. Virgilio

**Deputy Executive Director for
Reactor and Preparedness Programs**

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Groundwater Task Force

Charles Casto

**Deputy Regional Administrator
for Construction**

Region II

Agenda

- **Overview of Task Force activities**
- **Findings of the Groundwater Task Force**
- **Conclusions and key recommendations**

Groundwater Task Force Activities

- **Completed review of charter items**
- **Determined facts and observations**
- **Developed conclusions and recommendations**
- **Identified four themes**
- **Identified 16 specific conclusions**
- **Identified four key recommendations**

Overall Finding

- **After a thorough review, the GTF determined that the NRC is accomplishing its stated mission of protecting public health, safety, and protection of the environment through its response to groundwater leaks/spills.**

Overall Finding

- **Within the current regulatory structure, NRC is correctly applying requirements and properly characterizing the relevant issues.**

Themes

- **Theme 1 – Reassess NRC’s regulatory framework for groundwater protection**
- **Theme 2 – Maintain barriers as designed to confine licensed material**

Themes

- **Theme 3 – More reliable NRC response**
- **Theme 4 – Strengthen trust**

Key Recommendations

- **Identify the policy issues associated with an assessment of the NRC's groundwater protection regulatory framework**

Key Recommendations

- **Once the policy issues are addressed, implement conforming changes to incorporate appropriate enhancements in the Reactor Oversight Program**

Key Recommendations

- **Consider development of specific actions to address the key themes and conclusions in this report**

Key Recommendations

- **Conduct a focused dialogue with EPA, States, and international regulators to develop a collaborative approach for enhanced groundwater protection strategy**

**Legal Authorities
Over Radionuclides
In Groundwater**

**Steven Crockett
Special Counsel
Office of the General Counsel**

NRC Authority

- **Under Atomic Energy Act:**
 - **General Design Criteria 60 and 64**
 - **100 mrem standard (10 CFR 20.1301(a)(1))**
 - **ALARA 3 mrem guide (10 CFR Part 50 App. I, § II)**

EPA Authorities

- **Atomic Energy Act (by way of Reorg. Plan 3)**
 - **25 mrem whole body (40 CFR 190.10)**
 - **Enforced by NRC (10 CFR 20.1301(e))**
- **Safe Drinking Water Act**
 - **20k pCi/L of tritium (40 CFR 141.66)**
 - **Applied by EPA to public water systems, at the tap**

State Authorities

- **Possible sources of authority**
- **Uncertainties**
- **NRC interaction with states**
 - **To ensure that state action protects plant safety**

Reassessing NRC's Regulatory Framework and Maintaining Barriers to Confine Licensed Material

**Eric Leeds, Director
Office of Nuclear Reactor
Regulation**

Groundwater Task Force Report

- **First two themes:**
 - **Reassess the NRC's Regulatory Framework for Groundwater Protection**
 - **Maintain Barriers as Designed to Confine Licensed Material**

Incorporating Voluntary Initiative into Regulatory Framework

- **Inspect implementation of Licensee's programs**
- **Evaluate long-term effectiveness**
- **Continue to track releases**
- **Re-evaluate the need for additional actions based on industry performance**

Participating in Consensus Standard Development

- **Working with ASME to address inspection of nonsafety-related piping**
- **Working with NACE International regarding nuclear-specific corrosion protection standards**

Participating in Consensus Standard Development

- **Monitoring industry efforts to develop more effective piping diagnostic evaluation methods**

Revising the Radiological Effluent Performance Indicator

- **Evaluate effluent performance indicator usefulness**
- **Provide the Commission with a recommendation in the annual ROP self-assessment paper**

Immediate Remediation of Spills

- **SRM for Decommissioning Planning (2007) directed staff to address remediation of residual radioactivity during operational phase in proposed rule**
- **Developing technical basis to address**

Immediate Remediation of Spills

- **Scheduled to provide
recommendation regarding
rulemaking in FY2011**

Initiatives for Improved Communication of Groundwater Incidents

**Charles Miller, Director
Office of Federal and State
Materials and Environmental
Management Programs**

Creating More Reliable Response and Strengthening Trust

- **NRC's communication of groundwater incidents can be improved**
- **Staff has undertaken a number of initiatives to improve communication, create more reliable response, and strengthen trust**

Creating More Reliable Response and Strengthening Trust

- **Near-Term Initiatives (1)**
 - **Establish a community of practice**
 - **Establish a Stakeholder Confidence working group**
 - **Improve factsheets**

Creating More Reliable Response and Strengthening Trust

- **Near-Term Initiatives (2)**
 - **Develop standard protocol for split samples**
 - **Improve effluent reports**

Creating More Reliable Response and Strengthening Trust

- **Initiatives for the Long-Term**
 - **Improve communication strategies**
 - **Enhance communication with States**
 - **Enhance international outreach**

ACRONYMS

- **ASME – American Society of Mechanical Engineers**
- **EPA – Environmental Protection Agency**
- **GTF – Groundwater Task Force**

ACRONYMS

- **NACE – formerly National Association of Corrosion Engineers**
- **ROP – Reactor Oversight Process**
- **SRM – Staff Requirements Memorandum**