

The Under Secretary of Energy
Washington, DC 20585

February 27, 1997

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004

Dear Mr. Chairman:

The Department of Energy is committed to developing a Design Considerations Reference for nonreactor nuclear applications. This Reference will serve as non-mandatory guidance for the Department and its contractors, and will be developed using lessons learned and best practices from the Department and industry experience. We have already formed a working group of engineering practitioners and "design experts" from Department contractors, architect-engineer firms supporting the Department, Field Offices, and Headquarters personnel to draft sections of the Reference.

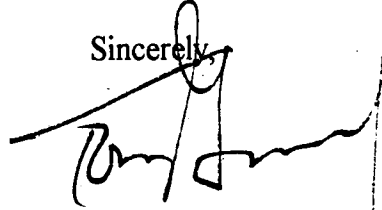
The Department committed at the December 12, 1996, public meeting, to provide the Board an outline of topics to be included in the subject document. Topics are organized into the following sections:

- Introduction (Section I)
- Systems (Section II)
- Discipline Specific Items (Section III)
- Special Facilities & Activities (Section IV)

Section I will include a discussion of the objectives and limitations of the Design Considerations Reference, as well as a description of the various ways in which a designer might use the document during design activity. Section II will provide a clear discussion of design considerations that would be applicable to the design of systems that are typically included in nonreactor nuclear facilities. Section III will include a discussion of topics that do not fit into any particular system. Section IV will provide a discussion of unique features of the system in a particular facility type.

The Department's goal is to complete as much of the Reference as possible by the end of CY1997. Drafting assignments have been identified for several of the topics as listed in the enclosed Table of Contents. The working group is available to meet with the Board Staff to discuss this ongoing effort.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Grumbly', written over a horizontal line. The signature is stylized and cursive.

Thomas P. Grumbly

Enclosure

Table of Contents

Writing Assignments (funding source)

| | |
|--|-------------------|
| I. <u>Introduction</u> | (EH) |
| Objectives | |
| Limitations | |
| Usage Guide | (ER) |
| Interface with requirements and guidance documents | |
| - Security | |
| - Fire Protection | |
| - Criticality | |
| - Natural Phenomenon | |
| II. <u>Systems</u> | |
| Confinement Systems | (DP) |
| Radiation Protection | TBD + (EH) |
| Effluent Control & Monitoring | (EM) |
| - Mechanical Systems | (EM) |
| - Piping | |
| - HVAC | |
| - Air Pollution Controls | |
| Electrical | (EM) |
| Instrumentation & Controls | (EM) |
| III. <u>Discipline Specific Items</u> | |
| Plant Architectural (layout, egress, etc.) | (EM) |
| RAM | (EH)/(DP) |
| Civil, Structural & Architectural | (EM) |
| Materials | (EM) |
| Coatings & Finishes* | (DP) |
| Conveyor Systems | TBD |
| Waste Minimization | (DP)/(EM) |
| IV. <u>Special Facilities & Activities</u> | |
| Environmental Restoration | (EM) |
| Nuclear Material Processing, Handling and Storage | |
| - Tritium | (EH) |
| - Plutonium | (EH/DP) |
| - Highly Enriched Uranium | TBD |
| - Beryllium | (DP/EH/EM) |

* This section may be covered as a subpart of each of the other sections if specific discussion of coatings and finishes is able to be developed by the authors of those sections.

D&D Considerations (include Deactivation)

(EM)

- Temporary Construction
- Permanent Construction

Explosive Facilities

(EH)

Solid & Liquid Waste Handling and Storage
(Receiving, Processing, Storage, Disposal)

(EM) et al

TBD

- Vitrification
- HLW (Spent Fuel)
- LLW
- TRU
- Mixed Waste
- Drum Storage
- Incineration
- Evaporators
- Calcinors
- Tank Farms
- Solidification
- Waste Compaction
- Molten Metals

Reprocessing Facilities

(DP)

Hot Laboratory Facilities

TBD

Bold underlined names indicate phase 2 effort to be done later. Individuals named in these sections may provide a further commitment as part of the first phase following this first meeting if funding and/or availability issues are resolved.