

Module 9

HIERARCHY OF DOCUMENTS

OBJECTIVES:

After completing this module you will be able to:

- 9:1 a) Categorize the following documents under a three-tier hierarchy consisting of external boundaries, internal boundaries and operating procedures:
- Approved work practices
 - OP&P
 - Verbal instructions from a work group supervisor
 - Reactor Operating License
 - Radiation Protection Regulations
 - Work plans
 - Quality Assurance Manual
 - Safety Report
 - Operating and Maintenance Procedures
 - Standards and Laws
 - Radiation Protection Procedures.
- b) Explain the order of precedence in case of a conflict between documents from differing tiers.

⇔ *Page 2*

⇔ *Page 3*

Hierarchy of Documents—External Boundaries

Figure 9.1 depicts a three-tier hierarchy of documents which governs NPP siting, design, construction, operation, maintenance, and decommissioning. The top tier consists of externally imposed boundaries, including applicable Federal and Provincial legislation, the Reactor Operating License, and applicable Codes and

NOTES AND REFERENCES

Standards. Several examples of applicable Federal and Provincial laws were discussed in Module 2 under *Role of Government in Nuclear Safety*. Examples of applicable codes and standards are the ASME code for the design and construction of plant pressure vessels, and the various CSA standards pertaining to the design, construction, operation, maintenance and decommissioning of a NPP (see Module 13 for further details). These are *external boundaries* inasmuch as the laws, license, codes and standards are imposed by groups external to the Utility.

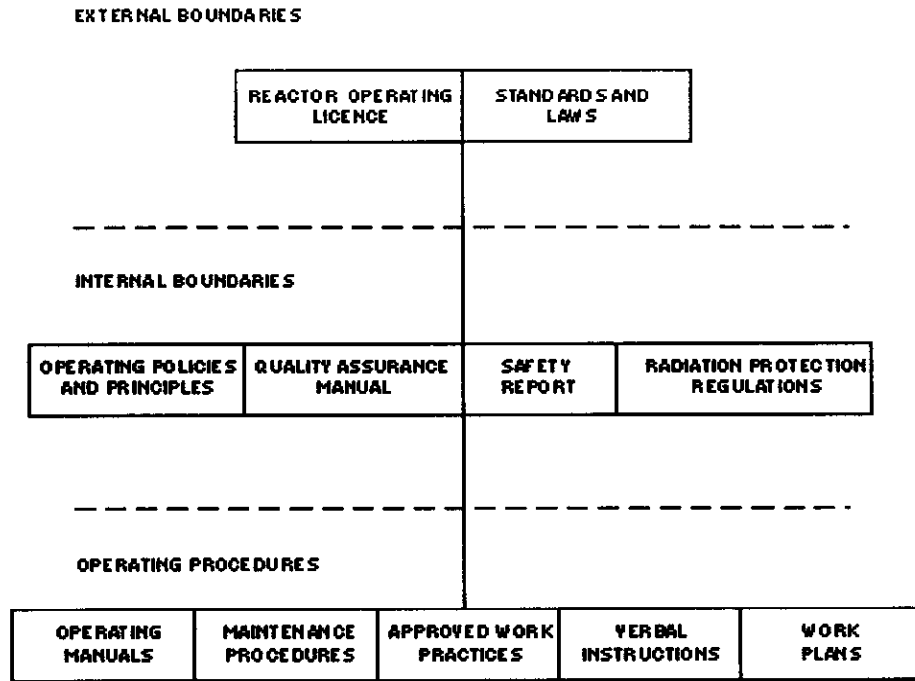


Figure 9.1: Hierarchy of Documents

Obj. 9.1 a) ⇔

Internal Boundaries

The second tier *Internal boundaries* are prescribed by high-level documents prepared by staff within the Utility. They include the OP&P, Safety Report, QA Manual, and Radiation Protection Regulations. These documents specify the internal boundaries for safe operation of the plant, and are derived to be compatible with the above-described externally imposed boundaries. In some cases, changes to internal boundaries require AECB approval—eg, changes to the OP&P and Radiation Protection Regulations.

Operating Procedures

The third tier, working level procedures include the Operating Manual, maintenance procedures, radiation protection procedures, approved work practices, verbal instructions, and work plans. The SS has authority over the implementation of these operating procedures. The SS can originate and approve such procedures, and can authorize deviations from procedures approved by others, except where Operations Manager's approval is required.

Conflicts Between Documents

⇔ *Obj. 9.1 b)*

In the case of conflicts between documents from differing tiers, the higher tier document prevails. For example, if an operating manual procedure (third tier) conflicts with the OP&P (second tier), then the OP&P override the operating procedure, which would have to be revised to be consistent with the OP&P.

The external boundaries take precedence over the internal boundaries, simply because the Utility is a law-abiding corporate citizen, committed to both nuclear safety and conventional health and safety. In fact, the internal boundaries are typically set tighter than the external boundaries, so that a violation of an internal boundary doesn't necessarily imply a violation of an external boundary. Similarly, the high-order documents comprising internal boundaries take precedence over all operating procedures. In fact, the boundaries defined by working level procedures are frequently set tighter than those defined by the internal boundaries, so that procedural violations don't necessarily imply violations of internal boundaries.

ASSIGNMENT

1. Carefully prepare detailed answers to the Module 9 learning objectives.
2. An apparent conflict between OP&P and the Safety Report is brought to the attention of the duty SS. The more operationally restrictive document would require a substantial unit derating. Describe and give the rationale for a typical response from the SS, depending on which of the two documents is the more restrictive.