

# **OUTLINE FOR OWNER'S DAM SAFETY PROGRAM**

## **TALE OF CONTENTS**

### **1. INTRODUCTION**

This Section should discuss the purpose for the Dam Safety Program and the Scope of the Program. The discussion of purpose should include, in general terms, who is covered by the Program (i.e. the owners employees, consultants, etc.), and what the Program is intended to accomplish. The discussion of scope should specifically state which dam(s) are covered by the Program.

### **2. TERMS and DEFINITIONS**

This Section should provide a glossary of terms and acronyms so that all parties who are covered by the Program have a clear and common understanding of the terms.

### **3. DAM SAFETY POLICY, OBJECTIVES AND EXPECTATIONS**

This Section should provide a summary of the policies defined in the Program, the objectives of the Program and the expectations of the owner for its employees, consultants and others involved in assuring dam safety. Each year the CEO or President or the highest person in the organization should issue a signed Company dam safety philosophy to the employees.

### **4. RESPONSIBILITIES FOR DAM SAFETY**

This Section should outline the responsibilities for each level and organizational group.

For instance, the responsibilities of the CEO and Board of Directors may include such items as: establishing the corporate safety philosophy; providing policies, directives and sufficient resources; understanding the Responsibilities and Liabilities that accompany ownership of a dam; understanding the life safety and financial risks associated with dam ownership; assuring safe and adequate design, construction, operation and maintenance of dams(s); assuring adequate emergency action planning is in place, and establishing appropriate decision-making process to assure dam safety.

Other people or organizations that have a role in assuring dam safety, such as: the Chief Dam Safety Engineer; dam safety managers and supervisors; others in the dam safety group; hydro plant managers; other hydro plant personnel; and other employees, agents, consultants and any other personnel, should have their responsibilities defined.

## **5. DAM SAFETY TRAINING PROGRAM**

This Section should include a discussion of the dam safety training provided to staff at all levels of the organization including management, operations, maintenance, engineering consultants and contractors as appropriate. Training of the on-site operators should be emphasized because they are the front line of defense. The content and frequency of training should be discussed

## **6. COMMUNICATIONS. COORDINATION, REPORTING & REPORTS**

This section should discuss internal and external communication requirements and protocols. Internal communication requirements and protocols should include the type of incidents that are to be reported to the Chief Dam Safety Engineer and the time frame in which those reports must be made. Communication requirements and protocols should also be established for the Chief Dam Safety Engineer to report to senior levels of management, up to and including the Chief Executive Officer and/or Chief Operating Officer.

External communication requirements and protocols should be established for communications to the FERC dam safety staff and other external stakeholders.

## **7. RECORD KEEPING AND DATABASES**

Procedures should be established to assure the retention of critical and other relevant documents and data related to design, construction operation and maintenance of the dam. Document types may include items such as design reports, drawings, specifications, construction reports, dam safety inspection reports, photographs, dam safety program audit reports, incident tracking, compliance and non-compliance history, commitment tracking, non-conformance tracking, training programs, etc.

The person or position responsible for assuring the retention of the records should be identified along with the storage location and the retention period.

## **8. SUCCESSION PLANNING**

Assuring the continuation of a qualified chief dam safety engineer and a qualified staff to assure dam safety is a critical element of a successful dam safety program. The procedures in place to assure a successful transition as positions become vacant should be described. At a minimum, succession planning procedures should be in place for the chief dam safety engineer, other dam safety group personnel, hydro plant personnel, and engineering and support group personnel.

## **9. CONTINUOUS IMPROVEMENT**

Assuring that the dam safety program is periodically reviewed to assure that it reflects the current staffing and organizational structure of the owner and incorporates the lessons learned from the ongoing implementation of the program, information gathered from dam safety inspections and operating history, changes in the state-of-

practice in dam safety, knowledge gained from training and the study of case histories of incidents and failures and findings from audits of the dam safety program.

#### **10. AUDITS AND ASSESSMENTS** *(Similar to Section 4.8 of Ameren ODSP)*

To assure that the dam safety program is being implemented in both the spirit of dam safety and in accordance with the written dam safety program, the chief dam safety engineer should routinely assess the organizations compliance with the written dam safety program and report the findings to the senior management of the organization.

To assure that the program is continuing to improve, as noted in Section 10, independent audits should be conducted periodically by a qualified dam safety expert. The time period between program audits should reflect the risk exposure of the organization. Owners with a large portfolio of dams or whose dams, either individually or collectively, present a significant risk to life safety, the environment or the financial health of the organization should have their dam safety program audited on a schedule not to exceed five years. The chief dam safety engineer should review the audit report and prepare a summary report for presentation to the senior management of the organization. A copy of the summary and audit reports should be submitted to the FERC.

#### **11. REFERENCES**

References to pertinent documents, policies, procedures, etc that support this dam safety program should be contained in this Section such as a detailed discussion of responsibilities, detailed procedures described in this document, training materials, operation and maintenance policies and procedures, etc .

#### **APPENDICES**

As appropriate – The appendices to include guidance details associated with each component of the program.