3.1 What is the purpose of this chapter? This chapter describes policies, procedures, and responsibilities for emergency action planning for Service high and significant hazard dams (see 361 FW 2.2).

3.2 Who is responsible for emergency action planning for Service high and significant hazard dams?

A. Regional Directors are responsible for ensuring the safe operation and maintenance of dams in their Regions.

B. The **Service Dam Safety Officer (SDSO)** is responsible for:

(1) Developing Emergency Action Plans and Standing Operating Procedures (SOPs) for all high and significant hazard dams.

(2) Assisting Regional Dam Safety Officers in implementing Emergency Action Plans.

(3) Performing periodic Emergency Action Plan exercises (also see 361 FW 2).

(4) Updating Emergency Action Plans and SOPs for major repairs and rehabilitation to high and significant hazard dams.

C. Regional Dam Safety Officers (RDSO) are responsible for:

(1) Assisting the SDSO in developing Emergency Action Plans for high and significant hazard dams.

(2) Providing technical and decisionmaking support to field staff during unusual or emergency events.

(3) Annually reviewing Emergency Action Plans.

(4) Annually updating and distributing revisions to Emergency Action Plans and SOPs.

(5) Annually testing, verifying, and certifying Emergency Action Plans.

D. Regional Engineers, at the discretion of the Regional Director, assist the RDSOs and SDSO in developing and implementing Emergency Action Plans.

E. Project Leaders are responsible for:

(1) Implementing and performing the actions described in the Emergency Action Plans.

(2) Ensuring adequate staff and training to implement the Emergency Action Plans.

(3) Working with RDSOs to annually test, verify, and certify Emergency Action Plans.

(4) Maintaining current copies of the Emergency Action Plans and SOPs.

(5) Ensuring the safety of employees and visitors who may be impacted by dam failure or misoperation.

increase in property damage versus the potential frequency of floods must be clearly identified in a management decision chart.

(b) The RDSO or the SDSO must provide the proposed Inflow Design Flood using an incremental damage assessment or risk-based analysis to the affected State dam safety office for review and discussion.

(c) The minimum Inflow Design Flood for high and significant hazard dams must at least meet the 100-year flood frequency.

B. Freeboard Requirements. Freeboard is the vertical distance from the water surface to the top of the dam. Freeboard should meet the requirements of ACER TM No. 2, Freeboard Criteria and Guidelines for Computing Freeboard Allowances for Storage Dams, BOR 1992 or the latest revision.

C. Low-Level Outlets. All inventory dams must have a low-level outlet that can evacuate the major portion of the reservoir storage volume by gravity flow.

(1) Only the SDSO may approve waivers to this requirement.

(2) Criteria for reservoir draining should recognize site-specific conditions, economic aspects, and project needs to provide an acceptable balance between costs and rates of draining and filling. Draining times established for a dam reflect downstream channel capacity, level of risk to the dam, and hazard potential to the downstream areas. A low-level outlet works, in conjunction with other release facilities, should meet the requirements in Criteria and Guidelines for Evacuating Storage Reservoirs and Sizing Low-level Outlet Works, ACER TM No. 3, the Department of the Interior, BOR 1990 or the latest revision.

(3) For small low-hazard inventory dams, the low-level outlet works, in conjunction with other release facilities, should be located and sized to draw down the reservoir within 1 to 4 months, at a minimum, to the lower of the following levels:

(a) The reservoir level commensurate with a storage capacity that is 10 percent of that at the normal reservoir level, or

(b) The reservoir level with less than 50 percent of the hydraulic height.

D. Risk Analyses: The Division of Engineering may use risk assessments to identify appropriate repair criteria. The assessments predict the annual probability of loss of life and failure probabilities of the structure over a projected 50-year period.

(1) The average annual loss of life probability must be less than or equal to 1 in 1,000.

(2) The annual failure probability of the structure must be less than or equal to 1 in 10,000.

Acting DIRECTOR

Date: September 12, 2008

3.3 What are the requirements for Emergency Action Plans?

A. All high and significant hazard dams must have an Emergency Action Plan.

B. Emergency Action Plans must include, at a minimum:

(1) Names, addresses, and telephone numbers of personnel and public officials responsible for public safety and media contacts;

(2) Actions required under specific hydrologic situations and other events that threaten the safety of the dam, such as earthquakes, seepage, or sabotage; and

(3) Actions required to mitigate a dam failure.

C. The RDSO must annually:

(1) Review Emergency Action Plans for high and significant hazard dams in the Region in accordance with procedures outlined in the Emergency Action Plans.

(2) Test, verify, and certify Emergency Action Plans by November 1st of each year.

(3) Submit a verification statement, in accordance with the SOPs, along with any revisions to the Emergency Action Plans, to the SDSO, on or before November 30th.

(4) Distribute revisions to Emergency Action Plans to the plan holders.

D. The SDSO must perform a periodic test of the Emergency Action Plans every 6 years concurrent with Formal SEED inspections and tabletop exercises concurrent with Intermediate SEED inspections in accordance with procedures in the Emergency Action Plans (see 361 FW 2 for more information about SEED inspections).

Acting DIRECTOR

Date: SEP 12 2008