

DEPARTMENT OF THE ARMY
Office of the Chief of Engineers
Washington, D.C. 20314

ETL 1110-2-231

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Engineer Technical
Letter No. 1110-2-231

30 March 1979

Engineering and Design
INITIAL RESERVOIR FILLING PLAN

1. Purpose. The purpose of this ETL is to furnish guidance for preparing a surveillance plan for the initial filling of Corps reservoirs.

2. Applicability. This ETL is applicable to all Divisions and Districts having Civil Works responsibilities.

3. References.

- a. ER 1110-2-1150
- b. ER 1130-2-419

4. Discussion. The "initial reservoir filling" is defined as a deliberate impoundment to meet project purposes and is a continuing process as successively higher pools are attained for flood control projects. The initial reservoir filling is the first test of the dam to perform the function for which it was designed. In order to monitor this performance, the rate of filling should be controlled to the extent feasible to allow as much time as needed for a predetermined surveillance program including the observation and analysis of instrumentation data. Information furnished in the filling plan should generally be concerned with action that can be taken without a significant impact on project purposes, provided no unsafe conditions are observed. The filling plan should be prepared by the Engineering Division in cooperation with the Construction and Operations Division.

5. Action.

a. A design memorandum which outlines an initial reservoir filling plan will be prepared for all new Corps reservoir projects prior to the initiation of reservoir filling for operational purposes. Attached as inclosure 1 is an example of such a plan which was prepared for Lost Creek Lake in the North Pacific Division (NPD). ER 1110-2-1150 is presently under revision and published in draft form to be used for interim guidance until finalized. The revised ER includes the requirements for preparing the Design Memorandum. The design memorandum should be prepared after all pertinent hydrologic, hydraulic, structural and geotechnical information has been developed during design and construction.

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b. Existing projects that are operational, where the maximum pool has not been experienced, should be reviewed and the O&M manual modified, if necessary, to include the information delineated in paragraph 6.

6. Design Memorandum Content. The design memorandum should include but not be limited to the following:

a. Preferred filling rate and the available options to control the rate of filling as well as the consequences of operation with prime objective of controlling the rate of reservoir rise.

b. The most likely type of problem that might develop during initial filling and the surveillance necessary to detect those problems.

c. A plan for reading the instruments and evaluating the data with regard to the filling plan.

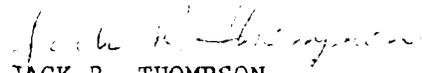
d. A plan for inspecting the dam and downstream areas prior to and during filling, including the relationship between frequency of inspection and rate of pool rise.

e. Instructions for observers on conditions that require immediate attention of personnel authorized to make emergency decisions. Clearly identify who is responsible for decisions and how they can be contacted. Alternate decision makers should also be identified.

f. An emergency plan listing responsibilities, name and/or positions, telephone numbers and radio frequencies to be used. (See ER 1130-2-419.)

FOR THE CHIEF OF ENGINEERS:

1 Incl
Initial Filling Plan


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