

**§ 214.11 Costs.**

Costs incurred by the Corps of Engineers in furnishing emergency supplies of clean drinking water are chargeable to Pub. L. 84-99 funds, 96X3125, Code 910-400 and repayment by the community generally will not be required. Costs of necessary measures for the decontamination of the water supply source are the responsibility of local governments and are not authorized under Pub. L. 84-99.

**PART 220—DESIGN CRITERIA FOR  
DAM AND LAKE PROJECTS**

**§ 220.1 Low level discharge facilities for drawdown of impoundments.**

(a) *Purpose.* This regulation states the policy, objectives, and procedures in regard to facilities for drawdown of lakes to be impounded by Civil Works projects.

(b) *Applicability.* This regulation is applicable to all Divisions and Districts having responsibility for design of Civil Works projects.

(c) *Policy.* It is the policy of the Chief of Engineers that all future lakes impounded by Civil Works projects be provided with low level discharge facilities to meet the criteria for drawdown set forth in this ER. Low level discharge facilities, capable of essentially emptying the lake, provide flexibility in future project operation for unanticipated needs, such as, major repair of the structure, environmental controls or changes in reservoir regulation. The criteria set forth in this ER will govern in the majority of impoundment projects. However, it may be impracticable to provide the drawdown capability to meet the criteria for certain projects because of their size (unusually small or large) or because of their unique function. Such projects may be exempt from the criteria upon presentation of information in accordance with paragraph (e) of this section.

(d) *Design criteria.* As a minimum, low level discharge facilities will be sized to reduce the pool, within a period of four months, to the higher of the following pool levels: (1) A pool level that is within 20 feet of the pre-project "full channel" elevation, or (2) a pool level

which will result in an amount of storage in the reservoir that is 10 percent of that at the beginning pool level. The beginning pool level for drawdown will be assigned at spillway crest for uncontrolled spillways and at top of spillway gates for controlled spillways. Inflow into the lake during the drawdown period will be developed by obtaining the average flow for each month of the year. The drawdown period inflow will then be assumed equivalent to the average flow of the highest consecutive four-month period.

(e) *Design Study and Report Requirements.* Feasibility (survey) reports and subsequent pertinent design memoranda should include the results of studies made to determine facilities required for drawdown of impoundments. The discharge capacity required to satisfy project purposes and diversion requirements during construction may be sufficient to meet the drawdown criteria set forth in paragraph (d) of this section. Where additional capacity is required, studies will be made to determine the most practical and economical means of increasing the capacity to meet the drawdown criteria. A synopsis of the alternatives considered and details of the recommended plan should be included in the Phase II General Design Memorandum or a feature design memorandum. The reporting should include the effects of the required discharge capacity on project costs, on existing downstream projects, and on the potential for downstream damage. When, due to specific project conditions, a drawdown capacity is recommended which does not meet the criteria set forth in paragraph (d) of this section, the following information should be presented:

(1) The drawdown period using the maximum drawdown capability of the proposed project facilities, under the situation described in paragraph (d) of this section. Information should be included on the pool elevation and corresponding storage volume at end of the period.

(2) Information on facilities that would be required to meet the design criteria for drawdown, including the estimated first cost and annual cost of these facilities. If the estimated cost for such facilities is significantly