

SECTION .0200 - OBTAINING APPROVAL FOR DAM CONSTRUCTION: REPAIR:OR REMOVAL

15A NCAC 02K .0201 APPLICATIONS

(a) Any person(s) who proposes to construct, repair, alter or remove a dam must file with the Director a statement concerning the location of the dam, including the name of the stream and county, height, purpose, and impoundment capacity, 10 days before start of construction. If the Director determines that the proposed dam is exempt from the law, the applicant will be notified and he may then proceed with the construction.

(b) If the Director determines that the proposed dam is not exempt from the Dam Safety Law of 1967, the applicant will be so notified within 10 days of receipt of the statement described in (a) of this Rule and construction may not commence until a full and complete application has been filed and approved. This application must be filed at least 60 days before the proposed start of construction:

- (1) When an application to construct a dam has been completed pursuant to Subsection (a) of this Rule, the department shall refer copies of the completed application papers to the Department of Human Resources, the Wildlife Resources Commission, the Department of Transportation, and such other state and local agencies as it deems appropriate for review and comment.
- (2) Before commencing the repair, alteration, or removal of a dam, application shall be made for written approval by the department, except as otherwise provided by this Subchapter or in accordance with G.S. 143-215.27(b). The application shall state the name and address of the applicant; shall adequately detail the changes it proposes to effect; and shall be accompanied by maps, plans, and specifications setting forth such details and dimensions as the department requires. The department may waive such requirements in accordance with G.S. 143-215.27(a). The application shall give such other information concerning the dam and reservoir required by the department concerning the safety of any change as it may require, and shall state the proposed time of commencement and completion of the work. When an application has been completed, it may be referred by the department for agency review and report as provided by G.S. 143-215.26(b) in the case of original construction.

(c) The application for any dam shall include a preliminary report. (Filing of the preliminary report prior to filing the final design report, early in the site investigation and design schedule, is encouraged to assure the state's concurrence with the hazard classification, site investigation, and design concept. This is especially encouraged for class C dams.) The preliminary report shall be filed with the application and shall include the following information:

- (1) a general description of the dam and appurtenances and a proposed classification as set forth in Rule .0105 of this Subchapter; The description shall include a statement of the purpose for which the dam is to be used;
- (2) a description of properties located below the dam including number of homes, buildings, roads, utilities, and other property that, as determined by the engineer, would be endangered should failure of the dam occur;
- (3) maps showing the location of the proposed structure that include the county, location of state roads, access to site, and outline of the reservoir; aerial photographs or USGS maps may be used;
- (4) preliminary drawings or sketches that include cross-sections, plans and profiles of the dam, proposed pool levels, and types of all spillways;
- (5) preliminary design criteria and basis for selection including a description of the size, ground cover conditions, and extent of development of the watershed, drainage area, spillway design storm, geology and geotechnical engineering, assumptions for the foundation and embankment materials, and type of materials to be used in the principal spillways(s).

(d) The Final Design Report. A "Certificate of Approval" to construct will not be issued until the final design report is received and approved. The preliminary report as described in (c) of this Rule and the final design report may be submitted as one document. The final design report shall include:

- (1) a report of the investigation of the foundation soils or bedrock and the borrow materials, including the location of borrow areas, that are to be used to construct the dam;
- (2) criteria to indicate that the dam will be stable during construction and filling and under all conditions of reservoir operations;
- (3) computations indicating that the dam is safe against overtopping during occurrence of the inflow design flood and wave action; Wave action need not be considered when the design flood is based on the probable maximum precipitation (pmp);

- (4) criteria, design data or references to indicate that seepage flow through the embankment, foundation, and abutments will be controlled so that no internal erosion will take place and so there will be no sloughing in the area where the seepage emerges;
 - (5) calculations and assumptions relative to design of the spillway(s);
 - (6) provision to protect the upstream slope, crest, and downstream slope of earth embankments and abutments from erosion due to wind and rain;
 - (7) other design data, assumptions, and analysis data pertinent to individual dams and site conditions;
 - (8) a proposed construction schedule;
 - (9) a proposed filling schedule for the reservoir;
 - (10) a maintenance and operation plan;
 - (11) the estimated design life of the dam and the reservoir;
 - (12) provision for maintaining minimum stream flow requirements.
- (e) The Plans and Specifications. Five sets of plans and specifications must be submitted. The plans shall be a detailed engineering design that consists of drawings and specifications and that include the following as a minimum:
- (1) Sheet one shall show the name of the project; name of owner; hazard classification of the dam; designated access to the project; and location with respect to highways, roads, streams, and any dam(s) that would affect or be affected by the proposed structure;
 - (2) Maps shall be included showing the drainage area and outline of the reservoir and the ownership of properties covered by the reservoir or flood pool;
 - (3) Geologic investigation, cross-section, profiles, logs of borings, location of borrow areas, drawings of principal and emergency spillways, and other additional sheets shall be included and drawn in sufficient detail to clearly indicate the extent and complexity of the work to be performed; The degree of detail required shall be determined by the applicable provisions of Rules .0204 through .0212 of this Section;
 - (4) The technical provisions, as may be required, to describe the method of construction and quality control for the project;
 - (5) Special provisions, as may be required, to describe technical provision needed to ensure that the dam is installed according to the approved plans and specifications;
 - (6) General provisions that specify the rights, duties, and responsibilities of the applicant, applicant's engineer and builder and the prescribed order of work.
- (f) The Director, within 60 days following receipt of a completed application, shall notify the applicant, by mail, that the application is either approved or disapproved. An approved application shall conform to the requirements of Rule .0202 of this Section.

*History Note: Authority G.S. 143-215.26, 143-215-2; 143-215.31;
Eff. June 15, 1980;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017.*