CHAPTER 73

USE, MAINTENANCE, REMOVAL, INSPECTIONS, AND SAFETY OF DAMS

[Prior to 7/1/83, INRC Ch 7] [Prior to 12/3/86, Water, Air and Waste Management[900]]

DIVISION I USE AND MAINTENANCE OF DAMS

567—73.1(109,455B) Operating plan for dams with movable structures.

73.1(1) When approval of operating plan required. An operating plan approved by the department shall be required for any dam exceeding the thresholds established in rule 567—71.3(455B) if the dam has movable structures which must operate during floods or to release a minimum downstream flow, or the impoundment water level is raised or lowered regularly or periodically.

73.1(2) Procedures for approval of operating plan.

- a. Form of review. Requests for approval of an operating plan shall be submitted and reviewed in the following manner:
- (1) Where operating plan is related to proposed construction. If an operating plan is required for a proposed new dam or because of proposed structural modification of an existing dam, the operating plan will be reviewed as part of the department review of construction plans which are required by 567—Chapters 70 to 72. Approval of the proposed operating plan will be made a part of the department permit, which approves the construction plans.
- (2) Where operating plan is not related to proposed construction. If an operating plan is required because of a change in use of a dam and is not related to proposed structural modification of the dam, the proposed operating plan should be submitted to the department in writing together with department application Form 36, described in rule 567—70.3(455B). The applicant should indicate on Form 36 that structural modification of the dam is not proposed.
- (3) *General review procedures*. Applications shall be reviewed in accordance with the procedures in 567—Chapter 70.
- b. Information required for review. An application for approval of an operating plan shall be supported by written information identifying personnel responsible for operation of the dam, the circumstance under which gates or other movable structures must operate, the method of operation, and the method of discharge measurement. These requirements are more fully described in department Bulletin No. 16.

73.1(3) *Criteria for approval.*

- a. Required findings. The department will approve a proposed operating plan only after the following findings are made:
- (1) The proposed operating plan complies with the statutory criteria set forth in Iowa Code section 455B.275, considering the purposes of regulation set forth in Iowa Code section 455B.262 and the effects to be considered under Iowa Code section 455B.264.
- (2) The proposed operating plan complies with the criteria in chapter IX of department Bulletin No. 16.
- b. Anticipation of changed circumstances. In applying the approval criteria in paragraph "a" of this subrule, consideration shall be given to both existing conditions and potential future conditions which can reasonably be anticipated at the time the application is reviewed.

567—73.2(109,455B) Raising or lowering of impoundment levels.

73.2(1) When approval required. A separate approval is required to temporarily or permanently raise or lower the level of water impounded by a dam which exceeds the thresholds of rule 567—71.3(455B) unless the raising and lowering has been authorized as part of an approved operating plan. Such approval shall be in the form of a letter authorizing the lowering or raising and may be conditioned upon various requirements.

- 73.2(2) Procedure for approval of raising or lowering impoundment water levels. Review procedure shall be as provided for operating plans in subrule 73.1(2) except that the applicant shall submit the following additional information:
- The date raising or lowering will be initiated, the level to which the impoundment will be raised or lowered, and, if temporary, the anticipated date when the normal water level will be restored.
- b. Evidence that during raising of the water level the required minimum downstream release rate will be maintained.
- Evidence that the discharge rate during lowering will not exceed the capacity of the stream channel below the dam.
- 73.2(3) Criteria for approval of raising or lowering impoundment water levels. The criteria for approval are the statutory criteria for approval of operating plans identified in subrule 73.1(3). In addition, as a condition of approving temporary or permanent raising or lowering of water levels, the applicant may be required to give prior notice to the director of the local county conservation board or local enforcement officer for the department and publicize the lowering locally in order to notify downstream users, persons who have boats or docks on the impoundment and other persons whose use of the impoundment might be affected.

567—73.3 to **73.9** Reserved.

DIVISION II ABANDONMENT AND REMOVAL OF DAMS

567—73.10(109,455B) Abandonment prohibited. The abandonment of a dam, or the intent to permanently cease or cause to cease all acts of construction, operation, and maintenance of a dam, is prohibited. If any person wishes to be relieved of the responsibilities inherent in the ownership or control of a dam structure, those responsibilities shall be undertaken by another person through sale, transfer or other means or the dam shall be removed.

567—73.11(109,455B) Removal of dams.

- 73.11(1) When approval required. Agency approval is required to remove any dam which exceeds the thresholds in rule 567—71.3(455B).
 - **73.11(2)** *Procedures for approving removal of dams.*
- Information required. To request approval to remove a dam the applicant shall submit a written statement including the following:
 - (1) Identification of the structure by name and location.
- (2) Identification of the owner and, if the applicant is not the owner, evidence of authority to act for the owner.
 - (3) The purpose for removal of the dam.
- (4) Methods to be used in drainage of the impoundment and removal of the structure and appurtenances.
 - (5) Proposed final disposition of the impoundment site.
- (6) Names, mailing addresses and location of the immediate upstream, downstream and adjacent landowners and occupants and, in addition, names and mailing addresses of other landowners and occupants who the director or council, after reviewing the proposal, believes will have a substantial interest in or will be substantially affected by removal of the dam.
- b. Form of review. Agency review process shall be as provided for review of operating plans in 73.1(2) "a"(2) and (3).
- c. Criteria for approval. Criteria for approval of removal of a dam are the statutory criteria for approval of operating plans identified in 73.1(3).
- Waiver of procedures for requesting approval to remove certain small dams. If a dam to be removed is classified as "low hazard" and is not a "major structure" as defined in 567—Chapter 70, the department may waive the requirements of paragraphs "a" and "b" of this subrule and approve removal by letter in response to oral or written notice of intent to remove the dam.

567—73.12 to 73.19 Reserved.

DIVISION III INSPECTION OF DAMS

567—73.20(109,455B) Scope and purposes of dam safety inspection program.

- **73.20(1)** Scope of dam safety inspection program. Dams subject to inspection under these rules are all dams which exceed the thresholds in rule 567—71.3(455B) and certain preexisting dams as described in 73.21(3). The scope of department staff field inspections normally is limited to visually observable features of dams and their appurtenant structures.
- **73.20(2)** Purposes of dam safety inspection program. The general purposes of inspections are as follows: to evaluate the construction, operation, and maintenance of dams; to identify observable deficiencies in dams or appurtenant structures; and to identify other flood plain structures or uses which may affect the hazard class of a dam or use of an associated impoundment. Inspection reports will be used by the department in determining whether a proposed dam project complies with applicable criteria, and to determine whether the following conditions exist:
 - a. A permit violation;
 - b. A violation of law which requires that a permit be obtained;
- c. A condition which constitutes a public nuisance by causing unacceptable risk of injury to the public health, safety or welfare.

567—73.21(109,455B) Types of inspections; when inspections are made.

73.21(1) *Inspections of major dam structures.*

- a. Inspection prior to construction. A field inspection shall be made by agency staff to determine the hazard class and verify the location and plan information upon receipt of an application for approval of construction or modification of a major dam structure under 567—Chapters 70 to 72.
- b. Inspection during construction. Construction or modification of a major dam structure shall be supervised and inspected as provided in Chapter VI of department Bulletin No. 16.
- c. Acceptance inspections. When construction of a major dam structure or modifications thereto is essentially completed, and as-built plans and a construction report have been submitted, the agency staff shall make a field inspection to determine whether visually observable features of the dam and appurtenant structures are consistent with the approved plans and the conditions of the agency approval order. The department shall thereafter issue a letter stating that the dam is accepted or that additional work is required for acceptance of construction. Filling of the impoundment shall not begin until the department has issued the letter of acceptance.
 - d. Periodic inspections after acceptance.
- (1) Inspections by department personnel. All major structures shall be inspected by agency staff on a regular basis. The department staff shall notify the dam owner or agent before each inspection. High hazard structures shall be inspected at least once every two years. Major structures not classified as high hazard shall be inspected at least once every five years. Structures in poor condition shall be inspected more frequently until required repairs are completed. Each inspection shall assess the condition of the dam and appurtenant structures and the adequacy of operation and maintenance practices. If warranted, the inspection may include reevaluation of the ability of the dam and appurtenant structures to adequately withstand the hydraulic loadings and pass the appropriate design floods.
- (2) Maintenance inspections by owner. The owner of a major structure shall be responsible for annual inspections and submission of written inspection reports as provided in Chapter VI of department Bulletin No. 16.
 - **73.21(2)** Inspections of dams other than major structures.
- a. Preliminary site evaluation. Department personnel may evaluate the site of a proposed dam other than a major structure from maps and aerial photographs in lieu of a field inspection.
- b. Inspection during construction. The applicant shall be responsible for providing supervision of construction by a person experienced in the type of construction involved. The applicant shall

submit written notification of the name and business address of the person responsible for supervising construction.

- c. Inspections after construction.
- (1) Dams with approved operating plans shall be inspected by department personnel at least once every five years. Any problems noted shall be reported to the owner in writing.
- (2) All other dams which exceed the thresholds in rule 567—71.3(455B) may be periodically inspected by department personnel to determine their condition. Any serious problems noted shall be reported to the owner in writing.
 - (3) Rescinded IAB 2/20/91, effective 3/27/91.
- **73.21(3)** *Preexisting dams.* Preexisting dams are dams whose dimensions exceed the thresholds in rule 567—71.3(455B) but which were constructed and most recently modified before enactment of law requiring that approval be obtained for construction or modification.
- a. Inventory and classification of certain preexisting dams. The U.S. Army Corps of Engineers, in cooperation with the department engineering staff, under the authority of the National Dam Safety Act, P.L. 92-367, have compiled an inventory of all known dams in Iowa having a permanent storage capacity in excess of 50 acre-feet. The inventory process included assignment of hazard classifications consistent with the hazard classifications in 567—subrule 72.3(2).
 - b. Inspection of preexisting dams.
- (1) Major structures. Preexisting dams which are on the National Dam Safety Inventory and have dimensions which exceed the thresholds for major structures as defined in 567—Chapter 70 will be inspected by department personnel as provided in 73.21(1)"d."
- (2) Other preexisting dams. Preexisting dams not classified as major structures are subject to inspection in the circumstances described in 73.23(1) to 73.23(3).
- **567—73.22(109,455B) Duty of dam owner to maintain, investigate, inspect and report.** The owner of a dam has a responsibility to maintain the dam and appurtenant structures in a safe condition. The owner should perform regular inspections to identify potential maintenance problems. The owner of a dam which exceeds the thresholds in rule 567—71.3(455B) will be required by the department to arrange for performance of engineering investigations when needed to evaluate potential safety problems. In any case where the department determines the need for follow-up inspections, the dam owner may be required to have a qualified person make inspections and prepare written inspection reports at specified intervals.
- **567—73.23(109,455B) Special inspections and investigations.** Special inspections and investigations shall be made by department personnel in the following instances:
 - **73.23(1)** Upon notice or evidence of unauthorized construction;
- **73.23(2)** Upon notice or evidence that a dam has failed or is in a condition where failure appears likely, and public damages would result from such failure;
- **73.23(3)** Upon notice or evidence that the hazard classification of a dam may no longer be valid due to changed downstream conditions;
- **73.23(4)** At the time renewal of a storage permit is being considered if the dam has not been inspected within the previous year.
- **567—73.24(109,455B) Inspection by others.** At the discretion of the department, an inspection report submitted by a qualified individual may be accepted in lieu of an inspection and report by the agency staff.
- **567—73.25(109,455B)** Access for inspections a condition of construction approval. An agency order which authorizes construction or modification, operation and maintenance of a dam for which postconstruction inspections are required by these rules shall include a condition stating that agency personnel shall have access to the dam site for such inspections.

567—73.26(109,455B) Inspection reports. Agency personnel shall prepare a report of each inspection and provide a copy to the owner of the dam. An annual summary report of all dams inspected during the year shall be presented to the department.

567—73.27 to 73.29 Reserved.

DIVISION IV DESIGNATION OF UNSAFE DAMS

567—73.30(109,455B) Procedures for designation of a dam as unsafe.

73.30(1) Agency staff report. If after inspection and other investigation the agency staff determines that a dam is unsafe, the staff shall prepare a report and provide copies to the owner of the dam and any other person whom the report identifies as responsible for the unsafe condition of the dam. The staff report shall identify the problems which cause the dam to be unsafe and recommend action to remedy the unsafe condition.

73.30(2) Opportunity for comment. The department shall provide the owner or other responsible person with a reasonable opportunity to comment on the staff report considering the degree and imminence of hazard identified in the staff report.

567—73.31(109,455B) Criteria for designating a dam as unsafe. Designation of dam as unsafe may be based on one or more of the following findings:

73.31(1) The dam has serious deficiencies in its design, construction, use, maintenance, or physical condition which would contribute to failure or otherwise increase flood damages.

73.31(2) The design, construction, operation, or maintenance of the dam is such that its anticipated performance during flooding conditions is incompatible with an applicable, approved local flood plain regulation or zoning ordinance adopted prior to the time the dam or its deficiencies were in existence.

73.31(3) The dam has inadequate spillway capacity for the size and hazard class of the dam.

567—73.32(109,455B) Agency action concerning an unsafe dam. After completion of the procedures in 73.30(109,455B), the department shall issue an initial decision which may order remedial work depending on the degree and imminence of hazard caused by the unsafe condition. Remedial work may include draining of the impoundment or removal of any structure determined to constitute a public nuisance. Procedures for appealing an initial decision are the procedures in 567—70.6(455B). If the initial decision requires emergency remedial work to abate an imminent danger of failure which would cause significant public damages as defined in 567—Chapter 70, the director may request the assistance of the attorney general to seek an appropriate judicial order compelling performance of emergency remedial work.

The rules in this chapter are intended to implement Iowa Code sections 109.15, 455B.275, 455B.277, 455B.264 and 17A.12.

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