

IOWA DNR DAM SAFETY RULES UPDATE

July 2019 Stakeholder Review Document

The Environmental Protection Commission hereby proposes to amend Chapter 50, “Scope Of Division—Definitions—Forms—Rules Of Practice,” Chapter 51, “Water Permit Or Registration—When Required,” Chapter 52, “Criteria And Conditions For Authorizing Withdrawal, Diversion And Storage Of Water,” Chapter 70, “Scope Of Title—Definitions—Forms—Rules Of Practice,” Chapter 71, “Flood Plain Or Floodway Development— When Approval Is Required,” Chapter 72, “Criteria For Approval,” Chapter 73, “Use, Maintenance, Removal, Inspections, And Safety Of Dams” , Iowa Administrative Code.

Legal Authority for Rule Making

This rule making is proposed under the authority provided in Iowa Code Section 455B.278.

State or Federal Law Implemented

This rule making implements, in whole or in part, Iowa Code Sections 455B.262, 455B.264, 455B.265, 455B.267, 455B.268, 455B.270, 455B.271, 455B.275, 455B.278.

Purpose and Summary

As part of an overall rules review schedule, the Iowa Department of Natural Resources is reviewing all rules associated with dam safety in the state. Dam approval, construction, maintenance and inspections are currently written across three different rule chapters and a rule referenced technical bulletin. Water storage permits also involve dam safety and are being incorporated into the amended rules. This rules review effort will focus on combining all rules regarding dam safety into one chapter. The rules review will also look at potential changes that bring the state closer to the national standards as well as clarify and simplify the criteria and processes.

Proposed Rule Updates include:

- Change in thresholds for what size dams fall under department regulation. The Department is proposing to align our regulatory thresholds with that of the National Inventory of Dams. This is consistent with what most states regulate.
- Requirement of Emergency Action Plans for High Hazard dams (dams where failure is likely to cause loss of life). This is important to ensure dam owners are prepared in the event of an emergency at their dam.
- Less prescriptive dam design requirements and allowing dam designers to use national standards as appropriate.
- Allows for reduced freeboard design flood in some situations. An inflow design flood based on an Incremental Consequence Analysis may be developed and submitted to the department for review as an alternative to the stated design floods stated in the amended rules. The design flood selected using incremental consequence analysis is the flood above which there is a negligible increase in downstream water surface elevation, velocity, and/or consequences due to failure of the dam when compared to the same flood without failure.

Low Head dams will continue to be in Chapters 71 and 72 as they are analyzed similar to other floodplain obstructions.

The following table is provided as a reference to map the new chapter 567-73 to existing rules:

Proposed Chapter 567-73	Chapter	Previous Rule Location or Reference	Comments
Division I: Scope and Definitions			
73.1: Scope and Applicability		70.1	Similar language used in 70.1 to introduce the scope of the dam safety program.
73.2: Definitions		70.2	Placed definitions only applying to dam safety in Chapter 73.
73.3: Regulated Dams		71.3	Moved and updated permit thresholds for dams from 71.3 to 73.3. Permit thresholds are proposed to change to align with national standards. Also clarifies when existing dams will need permits for work performed and when upgrades to the dam will be required.
73.4: Assignment of Hazard Class		73.3(2)	Intent of hazard classifications is the same, but language updated to clarify and match national language where possible.
Division II: Approval Process			
73.5: Review and Approval Process		70.5,72.30	Using application process consistent with floodplain permit applications as outlined in 70.5 with some modification to encourage a preliminary application packet for initial review and a final packet for permit issuance. Uses similar general conditions as outlined in 72.30.
73.6: Water Storage Permits		51.2, 52.20	Incorporating water storage permits into dam construction permit process.
Division III: Criteria for Approval			
73.7: General Criteria		72.3(1), 72.31	Similar language.
73.8: Lands, easements, and ROW		72.3(2)b.	Similar language. Previous 72.3(2)b(4) has been moved to 73.4(4)
73.9: Emergency Action Plans for Dams		New	New requirement for emergency action plans for high hazard dams. These plans prepare the owner and the county emergency manager on expected actions and downstream consequences in the event of the dam emergency.
73.10: Encroachment on a confinement feeding operation structure.		72.3(5)	Same language.

73.11: Hydrologic and hydraulic criteria	Technical Bulletin 16: Chapter III	Updated criteria based on current national standards and best practices. Design storms changed. Low hazard dams required to safely pass 100 year storm instead of 50 year storm. Significant hazard dams required to pass 1000 year storms instead of the ½ probable maximum flood (PMF) (the 1000 year flood is typically several inches of rain less than ½ PMF). No change to high hazard design storms.
73.12: Spillway design requirements.	Technical Bulletin 16: Chapter IV	Updated criteria for spillways to best practices and generally more performance based and less prescriptive criteria.
73.13: Embankment design requirements	Technical Bulletin 16: Chapter V	Updated criteria for embankment design to best practices and generally more performance based and less prescriptive criteria.
73.14: Operation plan	73.1, Technical Bulletin 16: Chapter IX	Similar language.
73.15: Removal and abandonment of dams.	73.10,73.11	Redefined abandonment to mean modification of the dam to prevent the storage of water, updated language for removal criteria.
Division IV: Dam ownership, inspections, and enforcement		
73.16: Dam Owner Responsibilities	73.22	Expanded rule language to outline dam owner responsibilities.
73.17: Dam Safety Inspection Program	73.20, 73.21	Similar language. Maintains department inspections of high hazard dams every 2 years and significant hazard dams every 5 years.
73.18: Raising or lowering of impoundment levels	73.2	Similar language. Clarification of approval process.
73.19: Unsafe dams	73.30, 73.31,73.32	Similar language with updated terminology (Department instead of Agency, etc).

The following rule-making action proposed:

ITEM 1. Amend rule 567—50.4(1) as follows:

50.4(1) *Application form.*

a. *Application for approval of a new withdrawal, diversion or storage of water unrelated to*

the use of an agricultural drainage well. For withdrawals, or diversions, ~~or storage~~ of water unrelated to the use of an agricultural drainage well, a request for a new permit as distinguished from modification or renewal of an existing permit shall be made on Form ~~16 (542-3106)~~ 542-3106. An application form must be submitted by or on behalf of the owner, lessee, easement holder or option holder of the area where the water is to be withdrawn, diverted ~~or stored~~, and used. An application must be accompanied by a map portraying the points of withdrawal or diversion ~~and storage~~, and the land on which water is to be used oriented as to section, township, and range. One application normally will be adequate for all uses on contiguous tracts of land. Tracts of land involved in the same operation separated only by roads or railroads will be deemed contiguous tracts. For water storage permits, applications will be made in conjunction with dam construction permits as required in 567--73.5 (455B).

ITEM 2. Rescind and reserve rule **567—51.2(455B)**.

(Water Storage permit requirements incorporated in Item 9 below)

ITEM 3. Rescind and reserve rule **567—52.20(455B)**.

(Water Storage permit requirements incorporated in Item 9 below)

ITEM 4. Amend rule **567—70.2(455B,481A)** definition of “Dam” as follows:

“Dam” means ~~a barrier which impounds or stores water~~ the same as defined in 567-73.1.

ITEM 5. Rescind rule **567—70.2(455B,481A)** definitions of “Height of dam” and Major dam structure.

~~“Height of dam” means the vertical distance from the top of the dam to the natural bed of the stream or water source measured at the downstream toe of the dam or to the lowest elevation of the outside limit of the dam if it is not across a water source.~~

~~“Major dam structure” means a dam meeting any of the following criteria:~~

- ~~1. Any high hazard dam.~~
- ~~2. Any moderate hazard dam with a permanent storage exceeding 100 acre feet or a total of permanent and temporary storage exceeding 250 acre feet at the top of the dam elevation.~~
- ~~3. Any dam, including low hazard dams, where the height of the emergency spillway crest measured above the elevation of the channel bottom at the centerline of the dam (in feet) multiplied by the total storage volume (in acre feet) to the emergency spillway crest elevation exceeds 30,000. For dams without emergency spillways, these measurements shall be taken to the top of dam elevation.~~

ITEM 6. Amend subrule 567.71(455B), introductory paragraph, as follows:

This chapter contains administrative thresholds which implement the statutory requirement that approval from the department be obtained for any development including construction, maintenance and use of a structure, low head dam, obstruction, deposit, excavation or “flood control work” on a flood plain or floodway. These administrative thresholds are organized into categories such as “channel changes,” “levees or dikes,” “buildings,” etc. Any doubt concerning whether a project or activity requires approval under these thresholds should be resolved by a request for advice from the department. Dams other than low head dams are regulated in 567—Chapter 73.

The department may delegate regulatory authority to a local government by approving local flood plain regulations (see 567—Chapter 75). To determine whether the department has delegated regulatory authority over a specific category of project at a specific location, an inquiry should be made to:

State Coordinator

National Flood Insurance Program

Iowa Department of Natural Resources

Wallace State Office Building

Des Moines, Iowa 50319

Telephone: (515)725-8200

ITEM 7. Amend rule 567—71.3(455B) as follows:

567—71.3(455B) Low Head Dams. Approval by the department for construction, operation, or maintenance of a low head dam in the floodway or flood plain of any water source shall be required ~~when the dimensions and effects of such dam exceed the thresholds established by this rule. on a stream draining 2 or more square miles in an urban area, or 10 or more square miles in a rural area.~~

~~EXCEPTION: Public road embankments with culverts which impound water only in temporary storage are exempt from the requirements of this rule and shall be reviewed under rules 567—71.1(455B) and 567—72.1(455B). Approval required by this rule shall be coordinated with approval for storage of water required by 567—Chapter 51. Approval by the department shall be required in the following instances:~~

~~71.3(1) Rural areas. In rural areas:~~

~~_____ a. _____ Any dam designed to provide a sum of permanent and temporary storage exceeding 50 acre-feet at the top of dam elevation, or 25 acre-feet if the dam does not have an emergency spillway, and which has a height of 5 feet or more.~~

~~_____ b. _____ Any dam designed to provide permanent storage in excess of 18 acre-feet and which has a height of 5 feet or more.~~

~~_____ c. _____ Any dam across a stream draining more than 10 square miles.~~

~~_____ d. _____ Any dam located within 1 mile of an incorporated municipality, if the dam has a height of 10 feet or more, stores 10 acre-feet or more at the top of dam elevation, and is situated such that the discharge from the dam will flow through the incorporated area.~~

~~_____ 71.3(2) Urban areas. Any dam which exceeds the thresholds in 71.3(1)“a,” “b” or “d.”~~

~~71.3(3) Low head dams. Any low head dam on a stream draining 2 or more square miles in an urban area, or 10 or more square miles in a rural area.~~

~~71.3(4) Modifications to existing dams. Modification or alteration of any dam or appurtenant structure beyond the scope of ordinary maintenance or repair, or any change in operating procedures, if the dimensions or effects of the dam exceed the applicable thresholds in this rule. Changes in the spillway height or dimensions of the dam or spillway are examples of modifications for which approval is required.~~

~~71.3(5) Mill dams. Rescinded IAB 2/20/91, effective 3/27/91.~~

~~71.3(6) Maintenance of preexisting dams. Approval shall be required to maintain a preexisting dam as described in 567—Chapter 73 only if the department determines that the dam poses a significant threat to the well-being of the public or environment and should therefore be removed or repaired and safely maintained. Preexisting dams are subject to the water, air and waste management dam safety inspection program as set forth in 567—Chapter 73.~~

~~This rule is intended to implement Iowa Code sections 455B.262, 455B.264, 455B.267, 455B.275 and 455B.277.~~

ITEM 8. Amend rule 567—72.3(455B) as follows:

567—72.3(455B) Low Head Dams. The following criteria shall apply to low head dams which exceed the thresholds in 567—71.3(455B).

~~72.3(1) General criteria for all regulated dams.~~

~~a. Required findings. The department will approve the construction, operation or maintenance of a dam or modification of a dam or appurtenant structure only after finding that the project is designed in accordance with accepted engineering practice and methods and in a manner consistent with the applicable criteria and guidelines in department Bulletin No. 16, “Design Criteria and Guidelines for Iowa Dams,” December 1990.~~

~~b. Anticipation of changed circumstances. In applying the approval criteria in subrule 72.3(1), paragraph “a,” consideration shall be given to both existing conditions and potential future conditions which can reasonably be anticipated at the time the application is reviewed.~~

~~c. Landowner notification. The department staff engineering review of the plans and specifications for a dam project shall determine whether there are lands upstream, downstream, or adjacent to the impoundment whose use apparently would be potentially adversely affected by maintenance of the dam and appurtenant structures, spillway discharges, temporary ponding of floodwater behind the dam, or failure of the dam. It is the applicant’s responsibility to submit sufficient information with the application and on request to enable the staff to accurately identify the owners and occupants of affected lands. The staff shall notify all known affected owners and occupants that the project may affect use of land in which they have an interest and advise them~~

~~of their opportunity to be heard on the application. The project shall not be approved unless it appears that notice reasonably calculated to advise all owners and occupants has been given and that they have had an opportunity to be heard.~~

72.3(1) General criteria:

a. The location and design of a low head dam shall not adversely affect the fisheries or recreational use of the stream.

b. The pool created by a low head dam shall not adversely affect drainage on lands not owned or under easements by the applicant.

c. The structure shall be hydraulically designed to submerge before bankfull stage is reached in the stream channel in order that increased or premature overbank flooding does not occur. Where this cannot be reasonably accomplished in order for the structure to fulfill its intended purpose, the applicant shall demonstrate that any increased flooding will affect only lands owned or controlled by the applicant.

d. For projects which include significant appurtenant structures or works outside the stream channel, the combined effect of the total project shall not create more than 1 foot of backwater during floods which exceed the flow capacity of the channel, unless the proper lands, easements, or rights-of-way are obtained.

e. The structure shall be capable of withstanding the effects of normal and flood flows across its crest and against the abutments, and adjacent channel or bank areas shall be protected against erosion as needed.

~~**72.3(2) Dams other than low head dams. The following criteria shall apply to all dams other than low head dams:**~~

~~a. — Assignment of hazard class. Dams shall be assigned a hazard class based on the potential consequences of failure. Anticipated future land and impoundment use shall be considered in the determination of hazard class. The criteria in this subrule shall be used to determine hazard class regardless of the methodology used in engineering design of a dam. The hazard class shall determine the design requirements of the structure as outlined in department Bulletin No. 16. The hazard class shall be evaluated using the following criteria:~~

~~—— (1) — Low hazard. A structure shall be classified as low hazard if located in an area where damages from a failure would be limited to loss of the dam, loss of livestock, damages to farm outbuildings, agricultural lands, and lesser used roads, and where loss of human life is considered unlikely.~~

~~—— (2) — Moderate hazard. A structure shall be classified as moderate hazard if located in an area where failure may damage isolated homes or cabins, industrial or commercial buildings, moderately traveled roads or railroads, interrupt major utility services, but without substantial risk of loss of human life. In addition, structures where the dam and its impoundment are of themselves of public importance, such as dams associated with public water supply systems, industrial water supply or public recreation, or which are an integral feature of a private development complex, shall be considered moderate hazard for design and regulatory purposes unless a higher hazard class is warranted by downstream conditions.~~

~~—— (3) — High hazard. A structure shall be classified as high hazard if located in an area where failure may create a serious threat of loss of human life or result in serious damage to residential, industrial or commercial areas, important public utilities, public buildings, or major transportation facilities.~~

~~—— (4) — Multiple dams. Where failure of a dam could contribute to failure of a downstream dam or dams, the minimum hazard class of the dam shall not be less than that of any such downstream structure.~~

~~—— b. — Lands, easements, and rights of way. An application for approval of a dam project shall include information showing the nature and extent of lands, easements, and rights of way which the applicant has acquired or proposes to acquire to satisfy the following criteria:~~

~~—— (1) — Ownership or perpetual easements shall be obtained for the area to be occupied by the dam embankment, spillways, and appurtenant structures, and the permanent or maximum normal pool;~~

~~—— (2) — Ownership or easements shall be obtained for temporary flooding of areas which would be inundated by the flood pool up to the top of dam elevation and for spillway discharge areas;~~

~~—— (3) — Easements covering areas affected by temporary flooding or spillway discharges shall include provisions prohibiting the erection and usage of structures for human habitation or commercial purposes without prior approval by the agency;~~

~~—— (4) — In locating the site of a dam and in obtaining easements and rights of way, the applicant shall consider the impacts which anticipated changes in land use downstream of a dam or adjacent to the impoundment could have on the hazard class of the dam, the operation of the dam, and the potential liability of the dam owner;~~

~~—— (5) — The applicant may be required to acquire control over lands downstream from the dam as necessary to prevent downstream development which would affect the hazard class of the dam.~~

~~_____ c. _____ Other approvals required. The applicant shall comply with all applicable provisions of 567 Chapters 51, 52 and 73 concerning water storage permits, operating permits, and inspections.~~

~~_____ d. _____ Additional requirements for major dam structures. Dams which are major dam structures as defined in 567 Chapter 70 must satisfy additional criteria set forth in Chapter VI of department Bulletin No. _____ 16. Reserved.~~

72.3(3) Low head dams. The following criteria shall apply to low head dams:

~~_____ a. _____ The location and design of a low head dam shall not adversely affect the fisheries or recreational use of the stream.~~

~~_____ b. _____ The pool created by a low head dam shall not adversely affect drainage on lands not owned or under easements by the applicant.~~

~~_____ c. _____ The structure shall be hydraulically designed to submerge before bankfull stage is reached in the stream channel in order that increased or premature overbank flooding does not occur. Where this cannot be reasonably accomplished in order for the structure to fulfill its intended purpose, the applicant shall demonstrate that any increased flooding will affect only lands owned or controlled by the applicant.~~

~~_____ d. _____ For projects which include significant appurtenant structures or works outside the stream channel, the combined effect of the total project shall not create more than 1 foot of backwater during floods which exceed the flow capacity of the channel, unless the proper lands, easements, or rights of way are obtained.~~

~~_____ e. _____ The structure shall be capable of withstanding the effects of normal and flood flows across its crest and against the abutments, and adjacent channel or bank areas shall be protected against erosion as needed. Reserved.~~

72.3(4) Operating plan. For any low head dam with movable structures which must operate or be operated during times of flood or to provide minimum downstream flow, or where the impoundment level is raised or lowered on a regular basis, an operating plan must be submitted for approval. The plan shall be in accordance with ~~department Bulletin No. 16 and~~ rules in 567—Chapter 73.

72.3(5) Encroachment on a confinement feeding operation structure. A low head dam shall not be constructed or modified so that the ordinary high water of the lake, pond or reservoir created by the dam is closer than the following distances from a confinement feeding operation structure unless a secondary containment barrier according to 567—subrule 65.15(17) is in place. Measurement shall be from the closest point of the confinement feeding operation structure to the water edge of the lake, pond or reservoir for a pool level at the elevation of the crest of the emergency spillway or at the top of dam elevation should the dam not have an emergency spillway.

a. Minimum separation between a water source other than a major water source and a confinement feeding operation structure is 500 feet.

b. Minimum separation between a major water source and a confinement feeding operation structure is 1,000 feet or such distance that the structure is not located on land that would be inundated by Q100, whichever is greater.

This rule is intended to implement Iowa Code sections 455B.262, 455B.264, 455B.270, 455B.275 and 455B.277.

ITEM 9. Rescind 567—Chapter 73 and adopt the following **new** chapter in lieu thereof:

CHAPTER 73

APPROVAL, CONSTRUCTION, USE, MAINTENANCE, REMOVAL, INSPECTIONS, AND

SAFETY OF DAMS

DIVISION I: SCOPE AND DEFINITIONS

567—73.1(455B, 481A) Scope and applicability. The department regulates the storage of water and the construction and maintenance of dams. Any person who desires to construct, repair, modify, abandon or remove a dam has a responsibility to contact the department to determine whether approval is required from the department.

567—73.2((455B) Definitions.

“Abandonment” means to render a dam non-impounding by dewatering and filling the reservoir created by that dam with solid materials and by diverting the natural drainage way around the site.

“Acre-feet” means a volume of water that would cover one acre of land one foot deep, equal to 43,560 cubic feet of water.

“Adverse Consequences” means negative impacts that may occur upstream, downstream, or at locations remote from the dam. The primary concerns are loss of human life, economic loss (including property damage), public damages, disruption of public utilities, and environmental impact.

“Appurtenant structures” means structures such as spillways, either in the dam or separate therefrom; the reservoir and its rim; low level outlet works; and water conduits such as tunnels, pipelines or penstocks, either through the dam or its abutments.

“Auxiliary Spillway” means any secondary spillway that is designed to be operated infrequently.

“Confinement feeding operation” means as defined in 567—65.1(455B).

“Dam” means a barrier which impounds or stores water.

“Dam Owner” means any person who owns, controls, operates, maintains, manages, or proposes to construct a dam.

“Hazard Potential” means the possible adverse incremental consequences that result from the release of water or stored contents due to a failure or mis-operation of the dam or appurtenances. The hazard potential classification of a dam does not reflect in any way on the current condition of the dam and its appurtenant structures (e.g., safety, structural integrity, flood routing capacity).

“Height of dam” means the vertical distance from the top of the dam to the natural bed of the stream or water source measured at the downstream toe of the dam or to the lowest elevation of the outside limit of the dam if it is not across a water source.

“Incremental Consequence” means under the same conditions (e.g., flood, earthquake, or other event), the difference in impacts that would occur due to failure or mis-operation of the dam over those that would have occurred without failure or mis-operation of the dam and appurtenances.

“Person” means any individual, proprietorship, partnership, association, corporation, municipality, county, or public agency.

“Probable” means more likely than not to occur; reasonably expected; realistic.

“Probable Maximum Flood” means as defined in 567-70.2.

“Q100,” “Q50,” “Q25,” “Q15,” “Q10,” means as defined in 567- 70.2.

“Public damages” means as defined in 567-70.2.

567—73.3(455B) Regulated dams.

73.3(1) Thresholds. Dams meeting any of the following thresholds shall be regulated by the department: Exception: Public road embankments with culverts are exempt unless such structure serves, either primarily or secondarily, a purpose commonly associated with dams such as the temporary storage of water for flood control.

a. A dam with a height of at least 25 feet and has a storage of 15 acre-feet or more at top of dam elevation; or

b. A dam with a storage of 50 acre-feet or more at top of dam elevation and a height of at least 6 feet; or

c. A dam that is assigned a hazard potential of high hazard.

73.3(2) New construction. Approval is required for construction of any dam meeting the thresholds of a regulated dam before construction begins. The proposed dam will be required to meet the criteria outlined in this chapter.

73.3(3) Existing dams. Approval is required for modification, alteration, breach, abandonment or removal of any existing dam or appurtenant structure beyond the scope of ordinary maintenance or repair, or any change in operating procedures, if the dimensions or effects of the dam exceed the applicable thresholds in this rule. Spillway reconstruction, changes in normal water level, and modification of the dam embankment or spillway are examples of modifications for which approval is required. The dam will be required to meet the criteria outlined in this chapter.

73.3(4) Required upgrades. Improvements may be required for existing dams in order to reduce the risk of a dam failure.

a. Existing high and significant hazard potential dams that have been inspected or analyzed and found not to meet the criteria in this chapter will be required to meet the requirements outlined in this chapter for their appropriate hazard potential.

b. Existing dams rated as low hazard potential dams that have been inspected or analyzed and found to be significant or high hazard potential shall be required to upgrade to meet the requirements outlined in this chapter for the appropriate hazard potential.

c. Existing low hazard potential dams will be required to be maintained, or upgraded and maintained per their permit on file with the department unless the hazard classification changes to high or significant.

567—73.4(455B) Assignment of hazard potential. All existing and proposed dams reviewed by the Department shall be assigned a hazard potential based on the potential consequences of failure. Anticipated future land and impoundment use shall be considered in the determination of hazard potential. The hazard potential shall be determined using the following criteria:

73.4(1) *Low hazard.* A structure shall be classified as low hazard if failure of the dam results in no probable loss of human life, low economic losses, and low public damages.

73.4(2) *Significant hazard.* A structure shall be classified as significant hazard if failure of the dam results in no probable loss of human life but may damage residential structures, industrial, commercial or public buildings, impact important public utilities or moderately traveled roads or railroads, or result in significant economic losses or significant public damages.

73.4(3) *High hazard.* A structure shall be classified as high hazard if located in an area where failure results in probable loss of human life.

73.4(4) In locating the site of a dam and in obtaining easements and rights-of-way, the applicant shall consider the impacts which anticipated changes in land use downstream of a dam

or adjacent to the impoundment could have on the hazard potential of the dam, the operation of the dam, and the potential liability of the dam owner.

DIVISION II: APPROVAL PROCESS

567—73.5(455B) Review and approval process for dam construction, modification, abandonment or removal.

73.5(1) *Application process.* The application shall be submitted by or on behalf of the person or persons who have or will have responsibility by reason of ownership, lease, or easement for the property on which the project site is located. The application shall be signed by the applicant or a duly authorized agent. Application materials are provided by the department. Completed applications along with supporting information shall be submitted to the department through an online application system; e-mailed to JointApplication@dnr.iowa.gov, or mailed to Iowa DNR, Attn: Joint Application, 502 E 9th Street, Des Moines, IA 50319. For dam repairs, abandonment, or removal, the department may waive the requirements of the application process outlined in this section if the requirements are unnecessary for the application approval, or the dam has been designated as unsafe and immediate actions are required to protect the public welfare.

73.5(2) *Preliminary application packet.* The preliminary application packet includes the joint application form and preliminary design data prepared by or under supervision of a professional engineer licensed in the State of Iowa. The preliminary design data packet shall contain a report summarizing the preliminary design, hydrologic data and reservoir routing, a hazard potential analysis, preliminary design drawings, the soils and geotechnical engineering analysis and a list of the engineering references used as the basis for design and construction.

73.5(3) Final submittal. After review and concurrence of the preliminary submittal by the department, the engineering plans and other engineering information shall be certified by a professional engineer licensed in the State of Iowa and submitted with the following information:

- a.* One complete set of certified construction plans;
- b.* One complete set of construction specifications;
- c.* Operating plan, if required;
- d.* Easements, if required;
- e.* Emergency Action Plan for High Hazard Dams; and
- f.* An engineering design report documenting all aspects of the design of the dam and how the design of the dam meets the criteria outlined in this chapter. The engineering design report shall include the following: hazard potential analysis, hydrology and hydraulic calculations, embankment design and foundation analysis, and structural calculations where applicable.

73.5(4) Project Review. The department shall review a project for which an application is submitted. The following are standard procedures for project review:

a. Inspection. The department may make one or more field inspection of the project site when necessary to obtain information about the project. Submission of the application is deemed to constitute consent by the applicant for the department staff and its agents to enter upon the land on which the proposed activity or project will be located for the sole purpose of collecting the data necessary to process the application unless the applicant indicates to the contrary on the application.

b. Technical review. The department shall conduct a technical review to determine if the project meets criteria for approval outlined in this chapter.

c. Public Notice. Public notice shall be issued by the department to inform persons who may experience adverse consequences by the permitted project. Adverse consequences may occur through maintenance of the dam and appurtenant structures, spillway discharges, temporary ponding of floodwater behind the dam, or failure of the dam. It is the applicant's responsibility to submit sufficient information with the application and on request to enable the department to accurately identify the owners, occupants and the addresses of affected lands.

73.5(5) *Project approval or disapproval.*

a. Approval. Issuance of a dam construction permit shall constitute approval of a project. The permit may include one or more special conditions when reasonably necessary to implement relevant criteria.

b. Disapproval. A letter to the applicant denying the application shall constitute disapproval of a project.

c. Notice of decision. Copies of the decision shall be mailed or electronically transmitted to the applicant and any person who commented.

73.5(6) *Appeal of decision.* Any person aggrieved by a decision issued under these rules may file a notice of appeal as governed by Chapter 567-7.

73.5(7) *General conditions.* Department approvals of a project shall be subject to the following conditions:

a. Change in ownership. The dam owner and any successor in interest to the real estate on which the project or activity is located shall be responsible for notifying the department of change in ownership.

b. Maintenance. The applicant has a responsibility to maintain the dam and appurtenant structures in a safe condition. Maintenance shall include keeping earthen portions of the dam well

vegetated, keeping trees and brush off the dam, preventing and repairing erosion, keeping the spillway free of obstructions, repairing deteriorated structural elements, and performing required maintenance on mechanical appurtenances such as gates.

c. Responsibility. No legal or financial responsibility arising from the construction or maintenance of the approved works shall attach to the state of Iowa or the department due to the issuance of an approval or administrative waiver.

d. Lands. The applicant shall be responsible for obtaining such government licenses, permits, and approvals, and lands, easements, and rights-of-way which are required for the construction, operation, and maintenance of the authorized works.

e. Change in plans. No material change from the plans and specifications approved by the department shall be made unless authorized by the department.

f. Revocation of permit. A department permit may be revoked if construction is not completed within the period of time specified in the department permit.

g. Performance bond. A performance bond may be required when necessary to secure the construction, operation, and maintenance of approved projects and activities in a manner that does not create a hazard to the public's health, welfare, and safety. The amount and conditions of such bond shall be specified as special conditions in the department permit.

h. Construction inspection. For high and significant hazard dams, construction shall be inspected by or under supervision of a professional licensed engineer in the state of Iowa. The engineer shall prepare and certify as-built plans after completion and a report documenting that the dam was constructed per the approved plans (or approved changes) and outlining unusual circumstances encountered during construction. The Water Storage Permit shall not be issued until the department accepts the as-built plans and report.

i. Post-construction department inspections. A department approval which authorizes construction or modification, operation and maintenance of a dam for which ongoing inspections are required by these rules shall include a condition stating that department shall have access to the dam site for such inspections.

j. Owner inspections. For high and significant hazard dams, the owner is responsible for annual inspections and submission of written inspection reports to the department as required in subrule 567-73.16(4).

567—73.6(455B) Water storage permits.

73.6(1) A water storage permit shall be required for all regulated dams in order to legally impound water. No water shall be impounded by a dam or reservoir prior to issuance of a water storage permit.

73.6(2) Application for a dam construction permit shall constitute application for a water storage permit if the appropriate fee (as stated in subrule 567-50.4(2)) is received with the application.

73.6(3) A water storage permit shall be issued upon a finding by the department that the dam and reservoir are safe to impound water within the conditions prescribed in the construction permit and the project meets the following conditions:

a. The proposed storage is for a specified beneficial use such as human or livestock water supply, recreation, aesthetic value, erosion control, or low-flow augmentation.

b. The impounding structure can be operated in a manner which will not adversely affect any applicable protected flow in the impounded stream.

c. For high and significant hazard dams, the water storage permit will not be issued until as-built plans and a construction report have been submitted documenting that the dam has been

constructed consistent with the approved plans and conditions of the dam construction permit, and the department has conducted a field inspection.

73.6(4) A water storage permit may be modified, cancelled, or suspended pursuant to Iowa Code section 455B.271. Conditions of cancellation or suspension of water storage permits shall include draining the lake with any available low level drain and may include dewatering with other methods or breaching of the dam.

DIVISION III: CRITERIA FOR APPROVAL

567—73.7(455B) General criteria.

73.7(1) Required findings. The department will approve the construction, operation and maintenance of a dam or modification, abandonment or removal of a dam or appurtenant structure only after finding that the project is designed in accordance with accepted engineering practice and methods and in a manner consistent with the applicable department criteria in this rule.

73.7(2) Variance. A request for a waiver or variance to this chapter shall be submitted in writing pursuant to 561-Chapter 10. The contents of a petition for waiver or variance shall include information pursuant to 561-10.9(17A, 455A).

567—73.8(455B) Lands, easements, and rights of way. An application for approval of a dam project shall include information showing the nature and extent of lands, easements, and rights-of-way which the applicant has acquired or proposes to acquire to satisfy the following criteria:

73.8(1) Ownership or perpetual easements shall be obtained for the area to be occupied by the dam embankment, spillways, and appurtenant structures, and the permanent or maximum normal pool.

73.8(2) Ownership or easements shall be obtained for temporary flooding of areas which would be inundated by the flood pool up to the top of dam elevation and for spillway discharge areas.

73.8(3) Easements covering areas affected by temporary flooding or spillway discharges shall include provisions prohibiting the erection and usage of structures for human habitation or commercial purposes without prior approval by the department.

73.8(4) As a condition of granting approval of a dam rated less than high hazard, the applicant may be required to acquire control over lands downstream from the dam as necessary to prevent downstream development which would affect the hazard class of the dam

567—73.9(455B) Emergency action plans for high hazard dams.

73.9(1) *Emergency action plan required.* All high hazard rated dams shall be required to have an Emergency Action Plan on file with the department. The plan shall include the following:

- a.* emergency notification plan with flowchart;
- b.* statement of purpose;
- c.* project description;
- d.* emergency detection, evaluation, and classification;
- e.* general responsibilities;
- f.* preparedness; and
- g.* inundation maps or other acceptable description of the inundated area.

73.9(2) *Emergency action plan maintenance.* The owner of the dam shall keep the emergency action plan up-to-date. Contact information shall be verified in the plan at least once a year, and an exercise shall be performed at least every 5 years. The owner of the dam shall keep

an up-to-date copy of the emergency action plan on file with the department and with the local county emergency manager.

567—73.10(455B) Encroachment on a confinement feeding operation structure. A dam shall not be constructed or modified so that the ordinary high water of the lake, pond or reservoir created by the dam is closer than the following distances from a confinement feeding operation structure unless a secondary containment barrier according to 567—subrule 65.15(17) is in place. Measurement shall be from the closest point of the confinement feeding operation structure to the water edge of the lake, pond or reservoir for a pool level at the elevation of the crest of the auxiliary spillway or at the top of dam elevation should the dam not have an auxiliary spillway.

73.10(1) Minimum separation between a water source other than a major water source and a confinement feeding operation structure is 500 feet.

73.10(2) Minimum separation between a major water source and a confinement feeding operation structure is 1,000 feet or such distance that the structure is not located on land that would be inundated by Q100, whichever is greater.

567—73.11(455B) Hydrologic and hydraulic criteria.

73.11(1) *Hydrology and hydraulic calculations.* Hydrology and hydraulic calculations shall be submitted documenting the methods and analysis followed in modeling software selection, inflow design hydrograph determination, and reservoir routing. The report shall include design references, inflow hydrograph, reservoir stage-storage and stage discharge curves and clearly identify peak inflows, peak discharges, and reservoir elevations for the design floods.

73.11(2) *Design floods.* The specified freeboard design floods in the table below shall be passed without overtopping of the dam or the dam shall be designed to withstand such overflow. The specified spillway design flood in the table below shall be passed by the principal spillway

without need for operation of an auxiliary spillway unless the auxiliary spillway is designed such that erosion is not expected during operation.

Hazard Potential	Freeboard Design Flood	Spillway Design Flood
Low Hazard	Q100	Q10
Significant Hazard	Q1000	Q50
High Hazard	Probable Maximum Flood	Q100

73.11(3) *Precipitation amounts.* NOAA Atlas 14, Precipitation Atlas of the United States, Volume 8, Version 2.0, dated 2013 shall be used for the Q10-Q1000 frequency storm events. NOAA Hydrometeorological Report No. 51, Probable Maximum Precipitation Estimates, United States, East of the 105th Meridian, dated 1978, shall be used for the Probable Maximum Precipitation.

73.11(4) *Spatial and temporal rainfall distributions and storm durations.* The design report shall document the sources and methodologies for inflow hydrograph development. Distributions and durations that produce the highest impoundment water level shall be used for design.

73.11(5) *Spillway discharge capacity.* The spillway discharge capacity shall be sufficient to evacuate at least 80% of the volume of water temporarily stored during the principal spillway design flood within 10 days. If this cannot be accomplished, the auxiliary spillway and freeboard design flood routings shall be made beginning with the impoundment level at the 10 day drawdown elevation.

73.11(6) *Incremental consequence analysis.* An inflow design flood based on an Incremental Consequence Analysis may be developed and submitted to the department for review as an alternative to the design floods stated in 73.12(2). The design flood selected using incremental consequence analysis is the flood above which there is a negligible increase in

downstream water surface elevation, velocity, and/or consequences due to failure of the dam when compared to the same flood without failure. If the department concurs with the analysis, the freeboard design storm may be reduced. The minimum design flood for a high hazard potential dam shall be the 500 year flood. The minimum design flood for low and significant hazard potential dams shall be the 100 year flood.

73.11(7) *Changes in hazard potential.* Any future changes in downstream land use, development, impoundment use or critical hydraulic structures shall require a re-evaluation of the hazard potential. If the hazard potential of the dam changes, the dam shall be required to meet all applicable criteria for that hazard potential. This may require additional increases in spillway capacity for the dam. The owner and any other persons responsible for the construction and operation of the dam shall assume all risks for future costs to upgrade a dam in the event there is a change in hazard potential.

567—73.12(455B) Spillway design requirements.

73.12(1) Spillways shall be designed to operate safely for the life of the structure and at the discharges and pressures which would be experienced under all flow conditions including the freeboard design flood.

73.12(2) Spillways shall be provided with a means of piping and seepage control (e.g., drainage diaphragms), anti-vortex devices, trash racks or other inlet debris control measures, and stable outlets capable of handling design exit flow velocities.

73.12(3) When a conduit is proposed to be used in a high hazard or significant hazard dam, detailed hydraulic, hydrologic, and structural computations supporting selection of the size and type of pipe to be used shall be provided by the applicant.

73.12(4) Detailed drawings and specifications relating to the installation of the pipe shall include, but are not be limited to: construction measures that adequately address critical load bedding, backfill, compaction, joints, and seepage precautions related to installation of the pipe.

73.12(5) Structural computations and drawings shall be submitted for all proposed concrete structures. Drawing details, as necessary, shall be provided showing reinforcement, cut offs, under drains/filters, waterstops, construction joints, control joints, and any other details necessary to construct.

73.12(6) If an auxiliary spillway is proposed, it shall be analyzed, designed and constructed adequately to establish and maintain stability during the passage of design flows without blockage or breaching. Open channel auxiliary spillways shall have a minimum depth of 2 feet and minimum width of 10 feet and be designed with appropriate curvature and slopes to prevent excessive erosion.

73.12(7) A gated low level outlet shall be provided for high hazard and significant hazard dams. The gated low level outlet shall be capable of draining at least 50 percent of the permanent storage behind the dam within 10 days. The pipe conduit shall be designed so that negative pressures will not occur at any point.

567—73.13(455B) Embankment design requirements.

73.13(1) The applicant shall document the engineering standards and design references used for dam embankment design. Drawing details, as necessary, shall be provided showing embankment slopes, required additional fill for anticipated settlement, top width, foundation preparation, core trench or cutoff wall, fill materials and methodology, internal seepage controls, and embankment erosion protection.

73.13(2) A geotechnical report shall be submitted for high and significant hazard dams documenting the evaluation of slope stability requirements, anticipated vertical settlement and horizontal elongation, seepage and under-seepage potential, whether cathodic protection is needed for metal pipes, and proper construction practices for the soil types and conditions encountered. A stability evaluation shall include end of construction, steady state seepage and sudden drawdown conditions.

567—73.14(455B) Operation plan. For any dam with gates or other movable structures which must operate or be operated during times of flood or to provide a minimum downstream release rate, a written operating plan shall be prepared. Development of such plan is considered part of the design process. An operation plan shall include, at a minimum, the following items:

73.14(1) Responsibility The plan shall outline and identify the necessary personnel who will be present to operate the equipment, or, in the case of automatic equipment, to monitor it and insure it is functioning properly. The plan shall provide a means to assure the necessary personnel are present when needed.

73.14(2) Operating Circumstances. The circumstances under which operation must occur shall be clearly defined, and a means shall be provided to ensure that operating personnel are present when necessary.

73.14(3) Method of Operation. The means and methods by which operation is to be conducted shall be clearly defined and shall include, at a minimum, the following items: rates and sequences for opening or closure of gates, target water levels, and target flow rates.

73.14(4) Flood capacity. The operating plan shall allow for safe passage of all floods up to and including the freeboard design flood. Flood discharges through the dam greater than the design peak flood inflows into the impoundment shall not be permitted.

73.14(5) *Low flow.* The plan shall address low flow situations and shall specify a minimum release rate if required by the department and how it will be provided and maintained.

73.14(6) *Equipment.* Consideration shall be given to and allowance made for the possible failure of or malfunctioning of the equipment.

73.14(7) *Discharge Measurement.* A means shall be provided to determine the discharge through the control structures, especially where operation is to maintain a minimum downstream flow. Stage-discharge tables, streamflow gages or other means of obtaining discharge readings shall be provided. The settings of control structures shall be easily read.

567—73.15(455B) Removal and abandonment of dams. Removal is the draining of the impoundment and removal of all or a significant portion of the embankment. A dam may be abandoned by rendering a dam non-impounding by dewatering and filling the reservoir with solid materials and by diverting the natural drainage around the site.

73.15(1) *Removal requirements.* A dam removal project shall meet all of the following requirements:

a. The dam removal plan shall clearly show removal limits and shall render the dam height and storage below thresholds and no longer pose any downstream hazard;

b. An impoundment dewatering plan shall be submitted that documents how the water will be released in a controlled manner and not cause upstream erosion or pose a flooding risk downstream;

c. A dam breach plan shall be submitted that does not pose an increased risk compared to the existing structure; and

d. A sediment disposition plan shall be submitted that provides for stabilization, release, or removal of stored sediment and shall not have a significant adverse consequences on fish and wildlife habitat downstream.

73.15(2) *Abandonment requirements.* An abandonment plan shall be submitted documenting the final site stabilization, evidence that the structure will no longer impound water or water borne materials that would be released in the event of a dam failure, and evidence that the structure will not store water above the thresholds outlined in this chapter.

DIVISION IV: DAM OWNERSHIP, INSPECTIONS, AND ENFORCEMENT

567—73.16(455B) Dam owner responsibilities.

73.16(1) *Operation and maintenance required.* 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.

73.16(2) *Dam maintenance.* The dam owner shall be required to maintain the dam and appurtenant structures in a safe condition. Maintenance shall include, but not be limited to, keeping earthen portions of the dam well vegetated, keeping trees and brush off the dam, preventing and repairing erosion, keeping spillways and drains free of obstructions, repairing structural deterioration, and performing required maintenance on mechanical appurtenances such as gates. The dam owner shall perform regular inspections to identify potential maintenance problems.

73.16(3) *Dam repairs.* The dam owner shall arrange for performance of engineering investigations when needed to evaluate potential safety problems. The dam owner shall perform

any required repairs. When 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.

73.16(4) *Maintenance inspections by dam owner.* The dam owner of a high or significant hazard structure shall be responsible for annual inspections and submission of written inspection reports. Annual inspection reports are due to the department on or before December 1st. Inspection reports shall include:

- a. Maintenance work done since the previous annual report;
- b. Deficiencies observed on the dam or appurtenant structures;
- c. Remedial measures necessary and the method and schedule the applicant proposes to correct the deficiencies found; and
- d. Changes in land use downstream of the dam.

567—73.17(455B) Dam safety inspection program.

73.17(1) *Scope of dam safety inspection program.* Dams subject to inspection under these rules are regulated dams as defined in this chapter. The scope of department staff field inspections normally is limited to visually observable features of dams and their appurtenant structures.

73.17(2) *Purpose 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 potential of a dam or use of an associated impoundment. Inspection reports shall be used by the department in determining whether a proposed dam project complies with applicable criteria, and to determine whether any of the following conditions exist:

- a. A permit violation;
- b. A violation of law which requires that a permit be obtained; or
- c. A condition which constitutes a public nuisance by causing unacceptable risk of injury to the public health, safety or welfare.

73.17(3) *Inspections of significant and high hazard dam structures.*

a. *Inspection prior to construction.* A field inspection may be made by the department to determine the hazard potential and verify the location and plan information upon receipt of an application for approval of construction or modification of a dam.

b. *Inspection during construction.* Construction or modification of a dam structure shall be inspected by an engineer licensed in the State of Iowa or by a trained inspector under the supervision of the engineer. After completion, the engineer shall prepare and submit a construction report, as-built plans, and a statement that in their professional opinion the work was conducted in general conformance with the approved plans and specifications.

c. *Acceptance inspections.* When construction of a dam or modifications thereto is completed, and as-built plans and a construction report have been submitted, the department 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 dam construction permit. The department shall thereafter issue the water storage permit or a letter stating that additional work is required for acceptance of construction. Closure of the low level outlet gate shall not begin until the department has issued the water storage permit.

d. *Periodic inspections after acceptance.* High hazard structures shall be inspected at least once every two years by the department. Significant hazard structures shall be inspected at least once every five years by the department. Structures poorly maintained or having had needed

repairs identified shall be inspected more frequently until required maintenance and repairs are completed. The department shall notify the dam owner or agent before each inspection. 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.

73.17(4) Inspections of low hazard dams.

a. Preliminary site evaluation. The department may evaluate the site of a proposed dam 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.

c. Dams with approved operation plans shall be inspected by the department at least once every five years. Any problems noted shall be reported to the owner in writing.

d. All other dams which exceed the thresholds may be periodically inspected by the department to determine their condition. Any serious problems noted shall be reported to the owner in writing.

73.17(5) *Special inspections and investigations.* Special inspections and investigations shall be made by department personnel in the following instances:

a. Upon notice or evidence of unauthorized construction;

b. 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; or

c. Upon notice or evidence that the hazard classification of a dam may no longer be valid due to changed downstream conditions.

73.17(6) *Inspections 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 Department.

73.17(7) *Inspection reports.* The department shall prepare a report of each inspection and provide a copy to the owner of the dam. The report shall state the deficiencies observed during the inspection. If appropriate, the report shall detail the actions required to improve the noted deficiencies.

567—73.18(455B) Raising or lowering of impoundment levels.

73.18(1) *When approval is required.* A separate approval is required to temporarily or permanently raise or lower the level of water impounded by a regulated dam 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.

73.18(2) *Information required for approval.* The applicant shall submit the following information:

a. 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; and

b. Evidence that the discharge rate during lowering will not exceed the capacity of the stream channel below the dam.

73.18(3) *Criteria for approval.* The department's review of the raising or lowering of the impoundment includes determining the effects on flooding or flood control for any proposed works and adjacent lands and property, on the wise use and protection of water resources, on the quality

of water, on fish, wildlife and recreational facilities or uses and on all other public rights and requirements.

73.18(4) Conditions. Conditions of approving temporary or permanent raising or lowering of water levels may include: giving prior notice to the director of the local county conservation board or local enforcement officer for the department; publicizing 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; and maintaining a minimum release rate as determined by the department during refilling.

567—73.19(455B) Unsafe dams.

73.19(1) Procedures for designation of a dam as unsafe.

a. Department report. If after inspection and other investigation the department determines that a dam is unsafe, a report shall be prepared. Copies of the report shall be provided to the owner of the dam and any other person whom the report identifies as responsible for the unsafe condition of the dam. The report shall identify the problems which cause the dam to be unsafe and recommend action to remedy the unsafe condition.

b. 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.

73.19(2) Criteria for designating a dam as unsafe. Designation of a dam as unsafe shall be based on one or more of the following findings:

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

b. 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; or

c. The dam has inadequate spillway capacity for the size and hazard potential of the dam.

73.19(3) *Department action concerning an unsafe dam.* After completion of the procedures for designating an unsafe dam, the department shall issue a 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. If the initial decision requires emergency remedial work to abate an imminent danger of failure which would cause significant public damages the director may request the assistance of the attorney general to seek an appropriate judicial order compelling performance of emergency remedial work.

These rules are intended to implement Iowa Code chapter 455B, division III, part 4.