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Sequence Number: 10-15-12
Rule ID(s): 5326-5327
File Date: 10/16/12
Effective Date: 1/14/13

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. T.C.A. § 4-5-205

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Revision Type (check all that apply):

___ Amendment
X New
X Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only **ONE** Rule Number/Rule Title per row)

Chapter Number	**Chapter Title**
0400-45-07	Rules and Regulations Applied to the Safe Dams Act of 1973
Rule Number	**Rule Title**
0400-45-07-.01	General
0400-45-07-.02	Definitions
0400-45-07-.03	Duties and Authority
0400-45-07-.04	Certifications of Construction, Operation and Alteration
0400-45-07-.05	Classification of Dams
0400-45-07-.06	Standards for Existing Dams
0400-45-07-.07	Design Standards for New Dams
0400-45-07-.08	Engineering Requirements
0400-45-07-.09	Fees
0400-45-07-.10	Emergency Action by Owner

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1200-05-07-.09	Fees
1200-05-07-.10	Emergency Action by Owner
1200-05-07-.11	Repealed

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to http://state.tn.us/sos/rules/1360/1360.htm)

Repeal

Chapter 1200-05-07 Rules and Regulations Applied to the Safe Dams Act of 1973 is repealed.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

New Rules

Chapter 0400-45-07
Rules and Regulations Applied to the Safe Dams Act of 1973

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0400-45-07-.01 General.

(1) Passed on May 1, 1973, "The Safe Dams Act of 1973", T.C.A. §69-11-101 et seq., provides that on or after July 1, 1973, no person shall construct, enlarge, repair, alter, remove, maintain, or operate a non-federal dam in the State of Tennessee without first obtaining a certificate. The Act further requires every owner of a dam file with the Commissioner of Environment and Conservation an application for a certificate.

(2) Under the Act, certain provisions and conditions are established for the issuance and continuance of said certificates, and authority is granted the Commissioner for the adoption of general rules and regulations which he deems necessary to accomplish the purpose of the Act. To safeguard the public by reducing the risk of failure of such dams, the following rules and regulations are made to (1) effect the orderly inventory and inspection of existing dams in Tennessee; (2) provide for pre-construction review and approval of all future dam construction and alteration of dams; and (3) allow for a program of regular inspection of dams within the State.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

1200-5-7-.02 Definitions.

For the purpose of these rules and regulations, the term:

"Abutment" means the bordering area of the dam site which functions as a support for the ends of the dam structure.

"Act" means "The Safe Dams Act of 1973", T.C.A. § 69-11-101 et seq., as amended.

"Alterations" means any repair, change to the structure, removal or change in use of a dam that may affect the safety of that dam.

"Applicant" means any owner of an existing or new dam who applies to the Division for a "Certificate" under the provisions of the Act.

"Appurtenant Works" means such structures as spillways, either in the dam or separate therefrom; the reservoir and its rims; water level outlet works; access bridges; and water conduits such as tunnels, pipelines or penstocks, either through the dam or its abutments.

"Certificate" means a "Certificate" as required by the Act for the construction, alteration, or operation of a dam.

"Commence Construction" means the actual start of on-site building but does not include preliminary surveying work or engineering plans preparation.

"Commissioner" means the Commissioner of the Department of Environment and Conservation, his duly authorized representatives and in the event of his absence or a vacancy in the office of Commissioner, the Deputy Commissioner.

"Conduit" means any closed waterway including but not limited to, a cast-in-place cut-and-cover culvert, a precast or prefabricated pipe embedded in the dam or foundation or a tunnel bored through the dam.

"Dam" means any artificial barrier, together with appurtenant works, which does or may impound or divert water, and which either (1) is or will be twenty (20) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier, as determined by the Commissioner, or (2) has or will have an impounding capacity at maximum water storage elevation of thirty (30) acre-feet or more. Provided, however, that any such barrier which is or will be less than six (6) feet in height, regardless of storage capacity, or which has or will have a maximum storage capacity not in excess of fifteen (15) acre-feet, regardless of height, shall not be considered a dam, nor shall any barrier, regardless of size, be considered a dam, if, in the judgment of the Commissioner, such barrier creates an impoundment used only as a farm pond. Diversion weirs, roadbeds, water tanks, and wastewater impoundment barriers as defined in this section are not dams.

"Days" means calendar days, including Sundays and holidays.

"Division" means the Division of Water Resources of the Tennessee Department of Environment and Conservation.

"Director" means the Director of the Division of Water Resources of the Department of Environment and Conservation of the State of Tennessee.

"Diversion Weir" means a structure substantially within the bed of a stream, designed to impound water only during low flow conditions, that would not cause substantial overflow of water onto the downstream floodplain in the event of failure, and meets the definition of a Category 3 dam in part (2)(b)3 of Rule 0400-45-07-.05.

"Easily Erodible" means any soil with a plasticity index of less than ten (10) or greater than forty (40).

"Emergency Spillway" means the spillway which conveys out of the reservoir any runoff in excess of that conveyed by the principal spillway.

"Engineer" means a professional engineer registered by the State of Tennessee.

"Erosion Resistant" means any soil not easily erodible.

"Existing Dam" means any dam complete and capable of impounding water prior to October 3, 1987.

"Enlargement" means any change in, or addition to, an existing dam or reservoir, which does or may raise the water storage elevation of the dam.

"Factor of Safety" means the ratio of the forces or moments resisting mass movement to the forces or moments tending to produce mass movement.

"Farm Pond" means any impoundment used only for providing water for agricultural and domestic purposes such as livestock and poultry watering, irrigation of crops, recreation, and conservation, for the

owner or occupant of the farm, his family, and invited guests, but does not include any impoundment for which the water, or privileges or products of the water, are available to the general public.

(a) General Public as used above means patrons, members, and customers of institutions and/or clubs such as but not limited to summer camps, schools, retirement facilities, churches, private clubs, communes, hunting clubs, and health care facilities.

(b) The following are some examples of impoundments which are not farm ponds:

Lakes owned or operated by a city, county, or the state, lakes that lie on three or more property parcels, residential subdivision lakes, industrial waste impoundments, industrial water supply impoundments, impoundments owned or used by hunting clubs, public water supply impoundments, commercial land development impoundments, and watershed district impoundments.

(c) The following are some examples of impoundments which are farm ponds:

1. Impoundments directly used in support of farming operations.

2. Impoundments used for agriculture, livestock watering, recreation or conservation solely by the owner and not available to the general public.

"Foundation" means the earth or rock on which the dam rests.

"Freeboard" means the difference in elevation between the top of the dam and the maximum reservoir water surface that would result should the inflow design flood occur and should the outlet works function as planned.

"Impoundment" means the water or liquid substance that is or will be stored by a dam.

"Maximum Water Storage Elevation" means the elevation of the lowest point on the top of the dam, excluding any spillway structures.

"Maximum Storage Capacity" means the volume of water stored at the maximum water storage elevation.

"New Dam" means any dam that is not an existing dam.

"Normal Water Storage Elevation" means the normal elevation of water surface which is obtained by the reservoir when the intake and outlet works are operating as planned during periods of normal precipitation and runoff and not during periods of drought or flood.

"Owner" means any person who owns an interest in, controls, or operates a dam.

"Person" means any individual, firm, association, organization, partnership, business trust, corporation, company, county, municipal or quasi-municipal corporation, public utility, utility or other district, the State of Tennessee and its departments, divisions, institutions, and agencies, and the duly authorized officers, agents, and representatives thereof, or any combination of any of the above. Person does not include the United States government nor any agency owned by the United States or any agency thereof, nor those who own a dam or reservoir leased to or operated by the United States or any agency thereof, nor those dams licensed by the Federal Energy Regulatory Commission (previously the Federal Power Commission).

"Principal Spillway" means the spillway which conveys normal runoff out of the reservoir.

"Probable Maximum Precipitation" "(PMP)" means the greatest amount of rainfall of a six-hour duration which would be expected for a given drainage basin as determined by National Weather Service meteorological estimates. The PMP for 10 square miles shall be used for watersheds smaller than 10 square miles.

"Probable Maximum Flood" "(PMF)" means the flood that may be expected from the most severe

combination of critical meteorologic and hydrologic conditions that are reasonably possible in the region. The PMF is derived from the probable maximum precipitation (PMP).

"Removal" means altering a dam such that it is no longer a dam as defined in these rules.

"Reservoir" means any basin which contains or will contain the water impounded by a dam.

"Roadbed" means the earth support work of a road prepared for surfacing which is not intended to impound water and which does not impound water continuously.

"Spillway" means the feature of a storage or detention dam which is designed to release surplus water, and at diversion dams is a means to bypass flows exceeding those which are turned into the diversion system.

"Structural Height" means the height of the dam measured from the natural bed of the stream or watercourse at the downstream toe of the barrier to the low point in the top of the dam.

"Wastewater Impoundment Barrier" means an artificial barrier impounding a body of wastewater for the purpose of treatment and designed so that no surface runoff from areas adjacent to the barrier is introduced into the impoundment.

"Water Tank" means a vessel designed and used to hold water.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.03 Duties and Authority.

The general responsibility to administer and enforce the provisions of this Act and all rules and regulations thereunder shall be carried out by the Division of Water Resources of the Department of Environment and Conservation.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.04 Certificates of Construction, Operation, and Alteration.

(1) General Provisions for Certificates.

(a) Certificate applications shall be made on forms available from the Commissioner. Where there are multiple owners of a dam, each owner shall not be required to file an application if all owners are listed in the application filed by any one of them.

(b) Application for a Certificate shall be made on forms available from the Commissioner and shall include the following information:

1. The name of the dam.

2. The name of the owner.

3. The legal address of the owner and/or lessee.

4. The location of the dam.

5. The type, size and height of the dam.

6. The storage capacity and reservoir surface area for normal and maximum water surface elevation.

7. The purpose or purposes for which the dam or reservoir is to be used.

8. In the case of an application by an owner or lessee of a dam, the names and addresses

of all persons having a real property interest in the dam.

9. Such other plans and detailed information as the Commissioner may deem reasonable and necessary to fulfill his responsibilities hereunder.

(c) An owner making application for an Alteration or Construction Certificate shall engage a qualified professional engineer, practicing in accordance with the registration laws of Tennessee, to plan, to prepare designs and specifications, and to supervise construction. This engineer must be qualified and experienced in the design and construction of dams of the type proposed and may be required to present evidence of his qualifications to undertake the project.

(d) The Commissioner shall examine the application for a certificate of approval and cause an on-the-ground inspection to be made of the existing or proposed dam or reservoir and downstream floodplain. He shall then, within sixty (60) days of the receipt of the completed application for a certificate of approval, either grant the certificate or disapprove it in writing, stating the reasons for disapproval. In the case of applications for construction certificates, applicants who fail to submit, within 18 months from the date of the original application submittal, plans or other detailed information required by the Commissioner must refile an application and plans review fee to obtain a construction certificate.

(e) Certificates are not transferable from one person to another or from one dam to another.

(f) The Commissioner shall be notified of any proposed change in the operation of a dam.

(g) Certificates shall not be granted until all fees required by the provisions of the Act and these rules have been paid.

(h) It shall be a violation of the Safe Dams Act for any person to knowingly submit a false or inaccurate report, data, or information.

(2) Operating Certificate.

(a) No person shall operate a dam without an Operating Certificate.

(b) Application for an Operating Certificate for a new dam already having a Construction Certificate shall be made on forms available from the Commissioner within thirty (30) days of the completion of the dam. The application shall be accompanied by a history of the construction of the dam as maintained by the responsible engineer and by a statement signed by the responsible engineer certifying that the project was constructed in conformity with approved plans and specifications. The history of construction shall include but not be limited to:

1. A record of all geological and foundation data.

2. Date, location, and results of all material tests made.

3. Narrative of problems encountered during construction and changes in design. (Necessity for such changes shall be reported to the Division for approval before proceeding with construction.)

4. Photographs of completed foundations, critical features (such as construction and backfilling around conduits and low level outlet structures) and periodic stages of construction are desirable. These may be required for selected projects.

5. A record of permanent location points, benchmarks, and any instruments embedded in the structure.

6. Plans which show the actual construction of the dam after changes in the original design.

(c) Application for an Operating Certificate for a dam already having an Alteration Certificate shall be made within thirty (30) days from the completion of the alteration on forms available from the

Commissioner. The application shall be accompanied by a statement signed by the responsible engineer certifying that the project was constructed in conformity with the approved plans and specifications. Additional information about the construction, such as that listed in subparagraph (b) of this paragraph, must be included if the Commissioner determines that such information is needed to insure that the alteration is constructed properly.

(d) Any new dam or dam alteration must be constructed in accordance with the approved plans and specifications in order to receive an Operating Certificate.

(e) A new dam must not be allowed to impound water other than transient storage due to storm runoff until an Operating Certificate has been issued.

(f) Application for an Operating Certificate shall be made on forms available from the Commissioner. Any dam owner who is notified by the Commissioner of the need to apply for an Operating Certificate shall submit such application within thirty (30) days.

(g) Whenever legal title to a dam, for which a certificate of approval has been issued, is modified to create real property interests, including leasehold interests, in persons not listed on the application for such certificate, the owner of such dam shall make application for a new certificate within ninety (90) days of the date such interests are created, other provisions of this chapter notwithstanding.

(h) An Operating Certificate shall be issued only on evidence satisfactory to the Commissioner that the requirements of Rule 0400-45-07-.06 are being met for an existing dam and the requirements of Rule 0400-45-07-.07 are being met for a new dam.

(3) Construction Certificate.

(a) No person shall commence construction on a new dam without first obtaining a Construction Certificate from the Commissioner.

(b) Application for a Construction Certificate shall be made at least 60 days prior to the commencement of construction on forms available from the Commissioner.

(c) The Commissioner shall issue a Construction Certificate for construction of a new dam only if the requirements of Rule 0400-45-07-.07 Design Standards for New Dams, Rule 0400-45-07-.08 Engineering Requirements, and Rule 0400-45-07-.09 Fees, are met.

(d) The owner or his agent shall provide written notice to the Commissioner within five days of the date that construction commences and shall include the name of the engineer's inspector. For dams which are to be greater than 30 feet high or which will impound more than 100 acre-feet at the maximum storage capacity, the engineer in charge of construction or his inspector shall be on site whenever construction is occurring. The Commissioner may require such full time inspectors on smaller dams as he deems necessary. During construction the Commissioner may make such inspections as are needed to ensure conformity with approved plans and specifications. The inspection by the Commissioner does not relieve the owner or the responsible engineer from providing adequate inspection of the construction in progress.

(e) If at any time during the progress of the work the Commissioner finds that the work is not being done in accordance with the approved plans and specifications or approved revisions, he shall serve written notice to that effect to the owner. Such notice shall state the particulars in which the approved plans and specifications have not been complied with and may request the suspension of work until such compliance has been effected. If, after due notice, the owner, or his duly authorized agents, fails to comply with the requirements of the above notice, the Certificate by which construction is authorized shall be subject to revocation by the Commissioner.

(f) The owner or his agent shall give written notice of the completion of the dam to the Commissioner within five (5) days of the completion or in time for the Commissioner's representative to be present at the final inspection with the engineer and the contractor, whichever occurs sooner.

(4) Alteration Certificate.

(a) No person shall make an alteration to a dam without first obtaining an Alteration Certificate.

(b) Application for an Alteration Certificate shall be made on forms available from the Commissioner at least 60 days prior to a planned alteration. The application shall identify the dam, state reasons why alteration, repair, or removal is necessary, give details of the proposed work, and provide an evaluation of the effects of the contemplated action. Plans and specifications will accompany the application along with a schedule for accomplishing the proposed project. The plans and specifications shall be submitted in conformance with Rule 0400-45-07-.08. The Commissioner may require full time inspection of any alteration construction by the responsible engineer or his inspector as he determines is necessary to ensure that the construction is performed properly.

(c) The owner or his agent shall provide written notice to the Commissioner within five days of the date that construction commences and shall include the name of the engineer's inspector if an inspector is required. The owner or his agent shall give written notice of the completion of the alteration to the Commissioner within five (5) days of the completion or in time for the Commissioner's representative to be present at the final inspection with the engineer and the contractor, whichever occurs sooner.

(d) In the event of an emergency where immediate repairs are necessary to safeguard life and property, such repairs shall be made immediately by the owner, or his duly authorized agents, and in accordance with Rule 0400-45-07-.10. In such events, the Commissioner shall be notified of the necessary emergency repairs and of work under way. The owner shall give written notice to the Commissioner within two days of learning of the emergency.

(5) Duration of Certificates.

(a) Construction and Alteration Certificates shall be for a single construction event. Construction Certificates shall be valid only for construction that begins within one year of issuance of the certificate.

(b) Alteration and Operating Certificates shall be valid for a definite period of time, not to exceed five (5) years, as determined by the Commissioner and stated on the certificate. In determining the period of approval, the Commissioner may take account of any circumstances pertinent to the situation, including, but not limited to, the size and type of dam, topography, geology, soil conditions, hydrology, climate, use of reservoir and the lands lying in the floodplain downstream from the dam, and the hazard category of the dam.

(6) Imposition of Additional Conditions - Hazard Categories.

(a) In granting a Certificate, the Commissioner may impose such conditions relating to the inspection, operation, maintenance, alteration, repair, use, or control of a dam or reservoir as he determines are necessary for the protection of public health, safety, or welfare.

(b) The Commissioner shall establish hazard categories for dams in accordance with paragraph (2) of Rule 0400-45-07-.05.

(7) Modification of certificates. The Commissioner may modify a Certificate or the conditions attached to it. Such modifications shall become effective ninety (90) days following issuance by the Commissioner of a revised Certificate, except when the Commissioner finds that a state of emergency exists, and that life or property would be endangered by delay. In case of an emergency declared by the Commissioner, the new conditions shall be effective immediately.

(8) Suspension, Revocation, or Modification. The Commissioner may revoke, suspend, or modify any Certificate issued pursuant to the Act or deny the issuance of a Certificate for cause including, but not limited to the following:

(a) Violation of any condition of said Certificate.

(b) Obtaining a Certificate by misrepresentation, or failure to disclose fully all relevant facts.

(c) Violation of any provision of the Act or any rule promulgated thereunder.

(9) Rights of Appeal. Any applicant aggrieved by the denial of a Certificate or any term or condition in a Certificate may appeal to the Commissioner for a hearing within sixty (60) days of the date of issuance of the Certificate or the denial of a Certificate. After sixty (60) days no such appeal may be filed. All appeals shall be conducted in accordance with T.C.A. § 69-11-118 and Uniform Administrative Procedures Act, T.C.A. §§ 4-5-301 et seq.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.05 Classification of Dams.

Dams will be classified in accordance to size, hazard potential, and design characteristics in order to formulate a priority basis for selecting dams to be scheduled in the inspection program and also to provide compatibility between guideline requirements and involved risks. When conditions at the dam or the hazard potential changes, the dam may be reclassified, and, if necessary, the dam must be upgraded to meet the standards of the new classification. The downstream conditions will be evaluated for hazard potential reclassification at least every 5 years.

(1) Size. The classification for size is based on the height of the dam and storage capacity in accordance with the table below. The height of the dam is established with respect to the maximum water storage elevation measured from the natural bed of the stream or watercourse at the downstream toe of the barrier, or if it is not across a stream or watercourse, the height from the lowest elevation of the outside limit of the barrier, to the maximum water storage elevation. For the purpose of determining project size, the maximum storage elevation will be considered equal to the top of dam elevation as defined in paragraph (26) of Rule 0400-45-07-.02. Size classification will be determined by either storage or height, whichever gives the larger size category. For size classification purposes, fractions of heights and storages shall be rounded down to the nearest whole number, e.g., 49.9 feet would be classified in the 20 to 49 feet category.

Size Classification

Category	Storage (Ac-Ft)	Height (Ft)
Small	30 to 999	20 to 49
Intermediate	1,000 to 49,999	50 to 99
Large	50,000 or greater	100 or greater

(2) Hazard Potential Category.

(a) Every dam will be assigned a hazard potential category to reflect the damage which might occur in the event of a dam failure, either structurally or operationally. The hazard potential will take into account a number of factors which will include, but not be limited to: the physical characteristics and degree of development of the site and valley downstream; the relationship of the site to industrial and residential areas; use of downstream properties throughout the danger reach; geological considerations; public and private uses of the impoundment or reservoir; and probable future downstream development.

(b) The hazard potential category of a dam may impose different standards at different sites for design and conditions for issuance of a Certificate and will have a bearing upon the frequency of inspections by the Commissioner. The following categories are established to permit the association of criteria with the damage that might result from such a failure.

1. Category 1 dams are located where failure would probably result in any of the following: loss of human life; excessive economic loss due to damage of downstream properties; excessive economic loss, public hazard, or public inconvenience due to loss of impoundment and/or damage to roads or any public or private utilities.

2. Category 2 dams are located where failure may damage downstream private or public property, but such damage would be relatively minor and within the general financial capabilities of the dam owner. Public hazard or inconvenience due to loss of roads or any public or private utilities would be minor and of short duration. Chances of loss of human life would be possible but remote.

3. Category 3 dams are located where failure may damage uninhabitable structures or land but such damage would probably be confined to the dam owner's property. No loss of human life would be expected.

(3) Removal of Dams. A dam shall be considered removed if it meets one of the following criteria.

(a) A portion of the dam is removed such that at the invert of the removed portion the dam is less than six feet high or has less than 15 acre-feet of storage capacity.

(b) A portion of the dam is removed or an open-channel spillway is built such that the invert of the removed portion is at the approximate elevation of the top of the tailings or sediment in the impoundment and the dam can no longer permanently impound water. In the case of embankment dams that receive surface runoff from areas adjacent to the impoundment, the open channel must be sufficiently large to preclude overtopping during the Freeboard Design Storm specified in subparagraph (3)(b) of Rule 0400-45-07-.06 or subparagraph (4)(d) of Rule 0400-45-07-.07, respectively.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.06 Standards for Existing Dams.

(1) Stability. All dams shall be stable. There shall not be excessive cracks, sloughing, seepage or other signs of instability or deterioration. In cases where the stability of the dam is questionable, it shall be the responsibility of the owner to either demonstrate to the Commissioner that the dam is stable or drain the reservoir and remedy the unstable condition prior to refilling the reservoir.

(2) Slope Protection

(a) Earth embankments shall be protected from surface erosion by appropriate vegetation or some other type protective surface such as riprap or paving and shall be maintained. Examples of appropriate vegetation include, but are not limited to, Bermuda grass and fescue. All inappropriate vegetation such as honeysuckle, briers, bushes, and trees shall be removed from the dam. Some trees may be allowed to remain on a dam if the Commissioner concurs with a justification from a qualified engineer for doing so. Such justification must satisfy the Commissioner that the number, size, location, root characteristics, etc., of such trees will not adversely affect the dam's structural integrity and safety nor impede inspection.

(b) The root mass of all trees larger than four (4) inches in diameter as measured at two feet above ground level shall be grubbed out and the hole backfilled with suitable fill material properly compacted. Smaller trees may either be cut at ground level or be removed as specified above. The Commissioner may require an engineer to oversee the tree removal.

(3) Emergency Spillway.

(a) All dams shall have an emergency spillway system with capacity to pass a flow resulting from a 6 hour design storm indicated in subparagraph (b) of this paragraph for a hazard classification appropriate for the dam. However, if the applicant's engineer provides calculations, designs, and plans to show that the design flow can be stored, passed through, or passed over the dam without failure occurring, or if he can successfully demonstrate to the Commissioner by engineering analysis that the dam is a safe structure and can certify that the dam is sufficient to protect against probable loss of human life downstream, said dam design may be approved by the Commissioner.

(b) Minimum Freeboard Design Storms.

Hazard Potential Category	Size	Freeboard Design Storm (6 Hours)
Category 3 (Low)	Small	100 year
	Intermediate	1/3 PMP
	Large	1/2 PMP
Category 2 (Significant)	Small	1/3 PMP
	Intermediate	1/2 PMP
	Large	PMP
Category 1 (High)	Small	1/2 PMP
	Intermediate	PMP
	Large	PMP

(c) No dam which is modified after original construction to increase its design storm to a 1/2 PMP or greater shall be required to pass a larger design storm unless the dam itself is enlarged or its normal or maximum storage volume is increased.

(4) Concrete and Masonry Dams. Concrete and/or masonry dams shall be structurally sound and shall have joints free of trees and other vegetation and shall show no signs of significant structural deterioration such as excessive cracks, spallation, efflorescence and exposed reinforcing steel.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.07 Design Standards for New Dams.

(1) Design of Dams. Designs of dams shall conform to accepted practices and procedures of the engineering profession. Design references developed by the U.S. Army Corps of Engineers, Soil Conservation Service, and the Bureau of Reclamation may be used although the limiting criteria must be in accordance with these rules.

(a) All dams will be considered on an individual basis and reviewed in accordance with prevailing practices that are currently accepted by the engineering profession.

(b) All structures other than Category 3 dams constructed before 2008 shall be designed to withstand seismic accelerations of the following intensities: Zone 1 = 0.025g, Zone 2 = 0.05g, Zone 3 = 0.15g. Zones refer to "Geologic Hazards Map of Tennessee" by Robert A. Miller, 1978. All dams constructed during or after 2008 shall be designed to withstand the peak ground acceleration for an earthquake with a 10% probability of exceedance in 50 years as determined by the United States Geological Survey at the time the construction permit is issued. A different peak ground acceleration may be used if site specific studies using accepted engineering practices determine that a different value is appropriate.

(c) A complete engineering report, plans, and specifications shall be submitted for each dam.

(d) A complete geotechnical report shall be submitted as an integral part of the engineering report for all Hazard Potential Category (HPC) 1 and 2 dams (defined in Rule 0400-45-07-.05). For HPC 3 dams, sufficient investigation will have to be made to determine if the site and the fill material to be used are suitable, and this information will have to be included in the engineering report.

(e) A hydrologic/hydraulic analysis shall be submitted as an integral part of the engineering report for all dams. A breach analysis shall be submitted for all HPC 1 and HPC 2 dams and, for the former, shall be included in the Emergency Action Plan. The breach analysis must use surveyed cross sections at all stations where homes or other structures may be flooded. A sunny-day breach shall be modeled with the impoundment at the elevation of the emergency spillway invert when the failure begins, or, if there is no emergency spillway, at the elevation of the inlet of the principal spillway. Breach modeling under sunny-day, overtopping, or any other conditions, is site specific.

(f) All Category 1 dams shall submit to the Commissioner an Emergency Action Plan. This plan shall include, but not be limited to, the following:

1. Inundation information and an inundation map based on the breach analysis.

2. Procedures for notification of people downstream and law enforcement and other government agencies.

3. Resources for emergency actions such as contractors, equipment supply businesses, etc.

(g) Design calculations for all major components of the structure, i.e., spillways, pipes, etc., shall be included in the engineering report.

(2) Principal Spillways.

(a) All component parts of the principal spillway except attached gates and trash racks will be of equal durability. The structural design criteria and detailing of such spillways will conform to recognized standards and codes of practice.

(b) In requiring the capacity of the principal spillway, the Commissioner may consider: (1) the benefits that accrue to the reduction of the discharge rate, (2) damages that may result from prolonged storage in the reservoir, (3) damages that may result from prolonged outflow, (4) the possibility of occurrence of significant runoff from two or more consecutive storm events within the time required to empty the reservoir, and (5) limitations in water rights or other legal requirements.

1. All conduits under a dam shall support the external loads imposed with an adequate factor of safety. They must withstand the internal hydraulic pressures without leakage under full external load and settlement. They must convey water at the design velocity without damage to the interior surface of the conduit.

2. Principal spillway conduits under earth dams shall be designed to support fill heights greater than the original constructed height where there is a reasonable possibility that it may become desirable to raise the embankment height at a later date to incorporate additional storage.

3. Principal spillway conduits shall be of reinforced concrete pipe, cast-in-place reinforced concrete, ductile iron pipe, or plastic pipe. Fill height and foundation conditions require special considerations for ductile iron pipe and plastic pipe so that each use will be checked on an individual basis; cradling or encasement in concrete may be required. Welded steel pipe is not acceptable for Category 1 and Category 2 dams, and corrugated metal pipe is not acceptable for any class of dam.

4. Principal spillway conduits shall be field tested for watertightness before backfilling. This requirement as well as the method of testing shall appear on the plans or in the specifications.

5. Rigid principal spillway conduits shall be designed as positive projecting conduits.

6. All reinforced concrete water pipe - steel cylinder type - prestressed, all reinforced concrete water pipe - steel cylinder type - not prestressed, and all reinforced concrete water pipe - noncylinder type - not prestressed, shall meet the AWWA specifications effective at the time of application.

7. Elliptical or other systems of reinforcement requiring special orientation of pipe sections are not permitted in pipe drop inlet barrels.

8. Reinforced concrete pipe, with or without cradles, shall be designed to support at least 12

feet of earth fill above the pipe at all points along the conduit.

(c) The minimum inside diameters of pipes shall be as follows:

1. Category 3 dams: The minimum diameter of the principal spillway barrel will be 18 inches for fill heights up to 50 feet and 24 inches for greater heights; or

   Where the drop inlet is designed hydraulically in such a way that the flow in the barrel under all possible conditions of discharge and foundation consolidation is positively known to be open channel flow with the water surface in the conduit subject to atmospheric pressure only, the minimum diameter shall be 18 inches; or

   Where welded steel pipe is used, the principal spillway shall be designed in accordance with conditions presented in subparagraph (e) of this paragraph.

2. Category 2 dams: The minimum diameter of the principal spillway barrel shall be 24 inches.

3. Category 1 dams: The minimum diameter of the principal spillway barrel shall be 30 inches.

4. Smaller conduits may be used if detailed calculations show them to be hydraulically and structurally adequate and all other requirements of this rule 1200-5-7-.07 are met.

(d) Where the barrel and cradle or bedding are to rest directly on firm bedrock thick enough so that there is essentially no foundation consolidation under the barrel, the cradle under the pipe need not be articulated.

(e) Principal spillways of welded steel pipe may be used for Category 3 dams under the following conditions, all of which must be met:

1. The minimum diameter of the barrel will be 18 inches.

2. The height of fill over the pipe will be less than 35 feet.

3. Welded steel pipe conduits are to conform to American Society of Testing Materials (ASTM) specifications A53, A120, A135, A139, or A134 and are to be structurally designed as rigid pipe. A joint extension safety margin of 1.5 inches is to be provided for conduits on yielding foundations. Welded pipe is to be protected by an approved exterior coating.

(f) Conduit joints will be designed and constructed to remain water tight under maximum anticipated hydrostatic head and maximum probable conditions of joint opening, including the effects of joint rotation, and must have a margin of safety where required.

(g) Trash racks will be designed and built to provide positive protection against clogging of the spillway at any point. The average velocity of flow through a clean trash rack will not exceed 2.5 feet per second with the water elevation in the reservoir five feet above the top of the trash rack or at the crest of the emergency spillway, whichever is lower. Velocity will be computed on the basis of the net area of opening through the rack.

   For dry dams, a trash rack may be used in lieu of a ported concrete riser. The principal spillway trash rack will extend sufficiently above the anticipated sediment elevation at the inlet to provide full design flow through the spillway with velocities through the net area of the trash rack above the sediment elevation not in excess of two feet per second when the water surface in the reservoir is five feet above the top of the trash rack.

(h) All closed conduit principal spillways designed for pressure flow will have an anti-vortex device.

(3) Drawdown Facilities.

(a) All new dams shall have a drawdown facility. This facility shall be capable of draining the reservoir in ten (10) days or less. It may be assumed that this requirement has been met if seventy-five (75) percent of the liquid volume from the normal water storage elevation has been evacuated in the ten (10) day period. The use of a longer period must be justified.

(b) The necessary drawdown facility for any dam shall be made an integral part of the principal spillway structure if the principal spillway configuration warrants it, but in no case will the drawdown facility be valved on the downstream side of the embankment. Siphon facilities will be accepted after proper engineering justification.

(c) Subparagraph (b) of this paragraph does not apply in the case of a water supply line through the dam, but in such cases provision must be made for a positive shutoff on the upstream side of the structure.

(d) Drawdown systems shall be maintained in an operable condition. Drawdown valves shall be opened and closed at least annually to ensure operability.

(4) Emergency Spillways.

(a) An emergency spillway shall be provided for each structure, unless the principal spillway is large enough to pass the routed freeboard hydrograph discharge and the debris that comes to it. A conduit type principal spillway having a barrel with a cross-sectional area of 20 square feet or more, an inlet which will not clog, and an elbow designed to facilitate the passage of debris, is the minimum size and design that may be utilized without an emergency spillway. If a principal spillway of this type and size is not provided, danger from clogging requires the use of an emergency spillway regardless of the volume of storage provided.

(b) A single uncontrolled open channel spillway may be used for all purposes provided it is designed to accommodate all discharges, including the freeboard storm, without damage to the structure. However, a positive means to drain the reservoir must also be provided.

(c) Emergency spillways shall be proportioned so that they will pass the freeboard hydrograph at the safe velocity determined for the site. They shall have sufficient capacity to pass the freeboard hydrograph with the water surface in the reservoir at or below the maximum storage elevation.

(d) Minimum Freeboard Design Storms

Size	Freeboard Design Storm (6 Hour)
Small	½ PMP
Intermediate	PMP
Large	PMP

(e) All dams shall have an emergency spillway system with capacity to pass a flow resulting from a 6 hour design storm indicated in subparagraph (d) of this paragraph for the size corresponding to the dam. Any new dam constructed between October 3, 1987, and February 19, 2001, shall be required to pass the Freeboard Design Storm specified in subparagraph (3)(b) of Rule 0400-45-07-.06. However, if the applicant's engineer provides calculations, designs, and plans to show that the design flow can be stored, passed through, or passed over the dam without failure occurring, or if he can successfully demonstrate to the Commissioner that the dam is a safe structure and can certify that the dam is sufficient to protect against probable loss of human life downstream, said dam design may be approved by the Commissioner. The establishment of the criteria in subparagraph (d) of this paragraph does not eliminate the need for sound engineering judgment but only establishes the lowest limit of design considered acceptable.

(f) The relationship between the water surface elevation in the reservoir and the discharge through the emergency spillway shall be evaluated by computing the head losses in the inlet channel upstream of the control section, or if a control section is not used, by computing the water surface profile through the full length of the spillway. Manning's formula will be used to evaluate friction

losses and determine velocities.

(g) The freeboard hydrograph shall be routed through the reservoir starting with the water surface at the elevation of the principal spillway inlet.

(h) A vegetated earth or unlined emergency spillway shall be approved when computations indicate that it will pass the design storm without jeopardizing the safety of the structure. The risk of recurring storms, excessive erosion, and inadequate vegetative cover will be considered acceptable in such a spillway when its average frequency of use is predicted to be not more frequent than once in 25 years for Category 3 dams, once in 50 years for Category 2 dams, and once in 100 years for Category 1 dams.

1. Vegetated and earth emergency spillways may be open channels and may consist of an inlet channel, a control section and an exit channel. Subcritical flow exists in the inlet channel and the flow may be supercritical in the exit channel.

2. Vegetated emergency spillways may be trapezoidal in cross-section and shall be protected from damaging erosion by a grass cover. They shall be used at sites where a vigorous grass growth can be sustained by normal maintenance without irrigation.

3. Earth spillways may be used in those areas where vegetative growth cannot be maintained. They are similar to vegetated spillways but are designed for lower permissible velocities and less frequent use. The needed maintenance after a flow occurs is the responsibility of the certificate holder.

4. Earth and vegetated emergency spillways are designed on the basis that some erosion or scour is permissible if its occurrence is infrequent, if maintenance facilities are provided, and if damage from a severe storm, as represented by the freeboard inflow hydrograph, will not endanger the structure.

5. A Manning's "n" of 0.040 may be used for determining the velocity and capacity in vegetated spillways. Permissible velocities in earth spillways may be based on an "n" value of 0.020 but the capacity of earth spillways will be based on an appraisal of the roughness condition at the site.

6. When the anticipated average use of a vegetated emergency spillway is more frequent than once in 50 years, the maximum permissible velocity will be in accordance with the values given below. The values may be increased 10 percent when the anticipated average use is not more frequent than once in 50 years or 25 percent when the anticipated average use is not more than once in 100 years. The maximum velocity limitations given below for vegetated or earth emergency spillways apply to the exit channel.

7. The values given will be the upper limit for all grasses. Values for grasses or grass mixtures will be determined by comparison with the values shown, with due consideration given to the growth characteristics and density attained in the local area by the species under consideration.

8. Where bona fide studies or investigations have been made to determine the permissible velocity for a specific soil and site, these values may be used in lieu of those shown below.

9. Maximum Permissible Velocities for Vegetated Earth Spillways.

Grasses or Grass Mixtures

Maximum

Soil Type	Slope	Permissible Velocity
Erosion Resistant	0-5 %	8.0 fps
	5-10%	7.0 fps
Easily Erodible	0-5 %	6.0 fps
	5-10%	5.0 fps

(5) Earth Embankments.

(a) Sufficient freeboard shall be provided to prevent overtopping with the passage of the freeboard hydrograph plus the additional freeboard required by the site for wave action.

(b) The top width of earth embankments will not be less than the value given by the following equation:

$$W = \frac{H + 35}{5}$$

where H = height of embankment in feet.

W = minimum top width of embankment in feet.

(c) The earth embankment will be riprapped or have other wave erosion protection provided over the full range in stage between three feet above and below the normal pool elevation.

(d) All dams shall be designed and constructed to prevent the development of instability due to excessive seepage forces, uplift forces, or loss of materials in the embankment, abutments, spillway areas, or foundation. Seepage analysis for design and inspection during construction shall be in sufficient detail to prevent the occurrence of critical seepage gradients. All dams permanently impounding water shall be constructed with an embankment toe drain with drain pipes installed to discharge the seepage.

(e) All dams shall have a permanent bench mark monument located near the embankment in undisturbed soil or in bedrock. This bench mark shall be detailed in the plans and specifications.

(f) All dams shall be protected from surface erosion by appropriate vegetation or some other type of protective surface such as rip-rap or paving and shall be maintained. Examples of appropriate vegetation include, but are not limited to, Bermuda grass and fescue. All inappropriate vegetation such as honeysuckle, briers, bushes and trees shall be kept off the dam by routine mowing.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.08 Engineering Requirements.

(1) Engineering Standards. The design engineer shall take into consideration the standards and recommendations made in accepted publications concerning dams, and also the current practices of the various agencies that may be concerned with the design and construction of dams.

(2) Engineering Drawings. All drawings shall be submitted in the form of permanent type drawings of a standard and uniform size. Drawings that do not conform to standard practices and drawings that are not easily legible will not be reviewed.

(3) Engineering Plans. At least four (4) complete sets of construction plans and specifications shall be submitted to the Commissioner. Upon approval, each submitted copy shall be stamped accordingly, two copies retained for the Division's file, and the remaining copies returned to the applicant. An approved copy bearing the stamp of approval must be kept at the construction site during all times of construction.

(4) Engineering Report. The engineering report shall be submitted for review prior to or along with the submittal of the plans and specifications. The engineering report is the basis of the design and shall

include, but not be limited to, the data and analyses required by Rule 0400-45-07-.07 for new dam construction or by Rule 0400-45-07-.06 for alterations to existing dams.

(5) Plans and Specifications. The plans and specifications shall provide the details of the structure designed in the engineering report, the construction materials, the construction methods, and shall include, but not be limited to, the following:

(a) Standard and uniform paper. Preferably 24" x 36".

(b) Cover sheet.

(c) Site plan.

(d) Embankment plan and profile views.

(e) Spillways plan and profile views.

(f) Seepage control detail including collection system.

(g) Wave protection detail.

(h) Service spillway outfall structure and energy dissipator details.

(i) Location of permanent bench mark.

(j) Location sketch.

(k) Actual mean sea level (MSL) elevations of the dam and its appurtenant works.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

0400-45-07-.09 Fees.

(1) Project Review Fee. A project review fee will be charged by the Commissioner for all new dam and reservoir construction. The fee is to accompany the application for a Construction Certificate. New dams will not be charged for the inspection fee for the initial Operating Certificate. The fee will be based upon the size categories shown below, but in no case shall the total project review fee exceed one percent (1%) of the total estimated cost of the dam.

Schedule of Charges

Height of Dam	Charge for Project Review
6 - 40 feet	$1000
41 - 60 feet	$1500
greater than 60 feet	$2000

If a construction certificate expires without construction having begun, the certificate holder may re-apply for a new construction certificate within one year of the expiration date of the original certificate and pay a project review fee of only $500, provided that no substantial changes have been made to the plans and specifications.

(2) Safety Inspection Fee. Fees will be charged for Safety Inspections by the Division. The fee is to accompany the application for an Operating Certificate. The fee will be $500 per inspection. All fees and charges shall be payable only by check or money order to the State of Tennessee.

(3) No fees shall be imposed for inspections of dams which are constructed, operated, or maintained by a watershed district pursuant to T.C.A. § 69-7-101 et seq.

Authority: T.C.A. §§ 69-11-101 et seq., 68-203-101 et seq. and 4-5-201 et seq.

1200-5-7-.10 Emergency Action by Owner.

Nothing in T.C.A. § 69-11-117, whereby the Commissioner has the authority to act under a state of emergency requested of and declared by the Governor, nor any provisions or requirements for Certificates, shall be construed to relieve or prevent an owner or operator of a dam of the legal duties, obligations, or liabilities incident to the ownership or operation of the dam. In the event of an emergency where immediate repairs are necessary to safeguard life and property, such repairs shall be made immediately by the owner or his duly authorized agents. In such events, the Commissioner shall be promptly notified of the necessary emergency repairs and of work under way, if any, and such work shall conform to such requirements as specified by the Commissioner.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Commissioner on _____ (mm/dd/yyyy), and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 10/18/11

Rulemaking Hearing(s) Conducted on: (add more dates). 12/13/11, 12/14/11 and 12/16/11

Date: 8/30/12

Signature: [signature]

Name of Officer: Robert J. Martineau, Jr.

Title of Officer: Commissioner

BETH B. SMITH STATE OF TENNESSEE NOTARY PUBLIC DAVIDSON COUNTY, TENN.
My Commission Expires JULY 6, 2015

Subscribed and sworn to before me on: August 30, 2012

Notary Public Signature: [signature]

My commission expires on: July 6, 2015

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

[signature]
Robert E. Cooper, Jr.
Attorney General and Reporter

10-7-12
Date

Department of State Use Only

Filed with the Department of State on: 10/16/12

Effective on: 1/14/13

[signature]
Tre Hargett
Secretary of State

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2012 OCT 16 PM 1:55
SECRETARY OF STATE
ADMINISTRATIVE PROCEDURES DIV.

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

There were no comments on the rule changes.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

(1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

The rule changes will have no impact. The purpose for the rule amendments were to perform re-numbering to Chapter 0400-45-07 from Chapter 1200-05-07 and to make editorial/citation corrections.

(2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

There should be no additional costs associated with the rule compliance.

(3) A statement of the probable effect on impacted small businesses and consumers.

The rule changes will have no impact. The purpose for the rule amendments were to perform re-numbering to Chapter 0400-45-07 from Chapter 1200-05-07 and to make editorial/citation corrections.

(4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

There should be no effect on small businesses or consumers.

(5) A comparison of the proposed rule with any federal or state counterparts.

There is no comparable federal rule.

(6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

Exemption of small businesses from the Safe Dams Act would put public safety at risk from dam failures on unregulated dams.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 "any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (http://state.tn.us/sos/acts/106/pub/pc1070.pdf) of the 2010 Session of the General Assembly)

The Department does not anticipate an impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

(A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

These rule amendments move the rules to Chapter 0400-45-07 from Chapter 1200-05-07 and make editorial/citation corrections.

(B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

The rules were promulgated under the Tennessee Safe Dams Act, T.C.A. §§ 69-11-101 et seq. There is no comparable federal law.

(C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Persons who own dams that are not farm ponds. Federal dams are exempt.

(D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Department is not aware of any.

(E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars ($500,000), whichever is less;

There should be no impact.

(F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Tom Moss
Division of Water Resources
6th Floor L & C Tower
Nashville, Tennessee

(G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Alan M. Leiserson
Legal Services Director
Office of General Counsel

(H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Tennessee Department of Environment and Conservation
20th Floor L & C Tower
Nashville, Tennessee 37243-1548
(615) 532-0131
Alan.Leiserson@tn.gov

(l) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Department is not aware of any.

Department of State
Division of Publications
312 Rosa L. Parks Avenue, 8th Floor Snodgrass/TN Tower
Nashville, TN 37243
Phone: 615-741-2650
Fax: 615-741-5133
Email: register.information@tn.gov

For Department of State Use Only

Sequence Number: _____
Rule ID(s): _____
File Date: _____
Effective Date: _____

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. T.C.A. § 4-5-205

Agency/Board/Commission:	Environment and Conservation
Division:	Water Supply
Contact Person:	Tom Moss
Address:	6th Floor, L & C Tower 401 Church Street Nashville, Tennessee
Zip:	37243-1549
Phone:	615-532-0170
Email:	Tom.Moss@tn.gov

Revision Type (check all that apply):

___ Amendment
X New
X Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only **ONE** Rule Number/Rule Title per row)

Chapter Number	**Chapter Title**
0400-45-07	Rules and Regulations Applied to the Safe Dams Act of 1973
Rule Number	**Rule Title**
0400-45-07-.01	General
0400-45-07-.02	Definitions
0400-45-07-.03	Duties and Authority
0400-45-07-.04	Certifications of Construction, Operation and Alteration
0400-45-07-.05	Classification of Dams
0400-45-07-.06	Standards for Existing Dams
0400-45-07-.07	Design Standards for New Dams
0400-45-07-.08	Engineering Requirements
0400-45-07-.09	Fees
0400-45-07-.10	Emergency Action by Owner

Chapter Number	**Chapter Title**
1200-05-07	Rules and Regulations Applied to the Safe Dams Act of 1973
Rule Number	**Rule Title**
1200-05-07-.01	General
1200-05-07-.02	Definitions
1200-05-07-.03	Duties and Authority
1200-05-07-.04	Certifications of Construction, Operation and Alteration
1200-05-07-.05	Classification of Dams
1200-05-07-.06	Standards for Existing Dams
1200-05-07-.07	Design Standards for New Dams

1200-05-07-.08	Engineering Requirements
1200-05-07-.09	Fees
1200-05-07-.10	Emergency Action by Owner
1200-05-07-.11	Repealed

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to http://state.tn.us/sos/rules/1360/1360.htm)

Repeal

Chapter 1200-05-07 Rules and Regulations Applied to the Safe Dams Act of 1973 is repealed.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

New Rules

Chapter 0400-45-07
Rules and Regulations Applied to the Safe Dams Act of 1973

Table of Contents

0400-45-07-.01 General
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0400-45-07-.07 Design Standards for New Dams
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0400-45-07-.09 Fees
0400-45-07-.10 Emergency Action by Owner

~~1200-5-7-.01~~ 0400-45-07-.01 General.

(1) Passed on May 1, 1973, "The Safe Dams Act of 1973", T.C.A. §69-11-101 et seq., provides that on or after July 1, 1973, no person shall construct, enlarge, repair, alter, remove, maintain, or operate a non-federal dam in the State of Tennessee without first obtaining a certificate. The Act further requires every owner of a dam file with the Commissioner of Environment and Conservation an application for a certificate.

(2) Under the Act, certain provisions and conditions are established for the issuance and continuance of said certificates, and authority is granted the Commissioner for the adoption of general rules and regulations which he deems necessary to accomplish the purpose of the Act. To safeguard the public by reducing the risk of failure of such dams, the following rules and regulations are made to (1) effect the orderly inventory and inspection of existing dams in Tennessee; (2) provide for pre-construction review and approval of all future dam construction and alteration of dams; and (3) allow for a program of regular inspection of dams within the State.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

1200-5-7-.02 Definitions.

For the purpose of these rules and regulations, the term:

~~(1)~~ "Abutment" means the bordering area of the dam site which functions as a support for the ends of the dam structure.

~~(2)~~ "Act" means "The Safe Dams Act of 1973", T.C.A. § 69-11-101 et seq., as amended.

~~(3)~~ "Alterations" means any repair, change to the structure, removal or change in use of a dam that may affect the safety of that dam.

~~(4)~~ "Applicant" means any owner of an existing or new dam who applies to the Division for a "Certificate" under the provisions of the Act.

~~(5)~~ "Appurtenant Works" means such structures as spillways, either in the dam or separate therefrom; the reservoir and its rims; water level outlet works; access bridges; and water conduits such as tunnels, pipelines or penstocks, either through the dam or its abutments.

~~(6)~~ "Certificate" means a "Certificate" as required by the Act for the construction, alteration, or operation of a dam.

~~(7)~~ "Commence Construction" means the actual start of on-site building but does not include preliminary surveying work or engineering plans preparation.

~~(8)~~ "Commissioner" means the Commissioner of the Department of Environment and Conservation, his duly authorized representatives and in the event of his absence or a vacancy in the office of Commissioner, the Deputy Commissioner.

~~(9)~~ "Conduit" means any closed waterway including but not limited to, a cast-in-place cut-and-cover culvert, a precast or prefabricated pipe embedded in the dam or foundation or a tunnel bored through the dam.

~~(10)~~ "Dam" means any artificial barrier, together with appurtenant works, which does or may impound or divert water, and which either (1) is or will be twenty (20) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier, as determined by the Commissioner, or (2) has or will have an impounding capacity at maximum water storage elevation of thirty (30) acre-feet or more. Provided, however, that any such barrier which is or will be less than six (6) feet in height, regardless of storage capacity, or which has or will have a maximum storage capacity not in excess of fifteen (15) acre-feet, regardless of height, shall not be considered a dam, nor shall any barrier, regardless of size, be considered a dam, if, in the judgment of the Commissioner, such barrier creates an impoundment used only as a farm pond. Diversion weirs, roadbeds, water tanks, and wastewater impoundment barriers as defined in this section are not dams.

~~(11)~~ "Days" means calendar days, including Sundays and holidays.

~~(12)~~ "Division" means the Division of Water ~~Supply~~ Resources of the Tennessee Department of Environment and Conservation.

~~(13)~~ "Director" means the Director of the Division of Water ~~Supply~~ Resources of the Department of Environment and Conservation of the State of Tennessee.

~~(14)~~ "Diversion Weir" means a structure substantially within the bed of a stream, designed to impound water only during low flow conditions, that would not cause substantial overflow of water onto the downstream floodplain in the event of failure, and meets the definition of a Category 3 dam in ~~Rule 1200-5-7-.05~~ part (2)(b)3 of Rule 0400-45-07-.05.

~~(15)~~ "Easily Erodible" means any soil with a plasticity index of less than ten (10) or greater than forty (40).

~~(16)~~ "Emergency Spillway" means the spillway which conveys out of the reservoir any runoff in excess of that conveyed by the principal spillway.

~~(17)~~ "Engineer" means a professional engineer registered by the State of Tennessee.

~~(18)~~ "Erosion Resistant" means any soil not easily erodible.

~~(19)~~ "Existing Dam" means any dam complete and capable of impounding water prior to October 3, 1987.

~~(20)~~ "Enlargement" means any change in, or addition to, an existing dam or reservoir, which does or may raise the water storage elevation of the dam.

~~(21)~~ "Factor of Safety" means the ratio of the forces or moments resisting mass movement to the forces or moments tending to produce mass movement.

~~(22)~~ "Farm Pond" means any impoundment used only for providing water for agricultural and domestic purposes such as livestock and poultry watering, irrigation of crops, recreation, and conservation, for the

owner or occupant of the farm, his family, and invited guests, but does not include any impoundment for which the water, or privileges or products of the water, are available to the general public.

(a) General Public as used above means patrons, members, and customers of institutions and/or clubs such as but not limited to summer camps, schools, retirement facilities, churches, private clubs, communes, hunting clubs, and health care facilities.

(b) The following are some examples of impoundments which are not farm ponds:

Lakes owned or operated by a city, county, or the state, lakes that lie on three or more property parcels, residential subdivision lakes, industrial waste impoundments, industrial water supply impoundments, impoundments owned or used by hunting clubs, public water supply impoundments, commercial land development impoundments, and watershed district impoundments.

(c) The following are some examples of impoundments which are farm ponds:

1. Impoundments directly used in support of farming operations.

2. Impoundments used for agriculture, livestock watering, recreation or conservation solely by the owner and not available to the general public.

~~(23)~~ "Foundation" means the earth or rock on which the dam rests.

~~(24)~~ "Freeboard" means the difference in elevation between the top of the dam and the maximum reservoir water surface that would result should the inflow design flood occur and should the outlet works function as planned.

~~(25)~~ "Impoundment" means the water or liquid substance that is or will be stored by a dam.

~~(26)~~ "Maximum Water Storage Elevation" means the elevation of the lowest point on the top of the dam, excluding any spillway structures.

~~(27)~~ "Maximum Storage Capacity" means the volume of water stored at the maximum water storage elevation.

~~(28)~~ "New Dam" means any dam that is not an existing dam.

~~(29)~~ "Normal Water Storage Elevation" means the normal elevation of water surface which is obtained by the reservoir when the intake and outlet works are operating as planned during periods of normal precipitation and runoff and not during periods of drought or flood.

~~(30)~~ "Owner" means any person who owns an interest in, controls, or operates a dam.

~~(31)~~ "Person" means any individual, firm, association, organization, partnership, business trust, corporation, company, county, municipal or quasi-municipal corporation, public utility, utility or other district, the State of Tennessee and its departments, divisions, institutions, and agencies, and the duly authorized officers, agents, and representatives thereof, or any combination of any of the above. Person does not include the United States government nor any agency owned by the United States or any agency thereof, nor those who own a dam or reservoir leased to or operated by the United States or any agency thereof, nor those dams licensed by the Federal Energy Regulatory Commission (previously the Federal Power Commission).

~~(32)~~ "Principal Spillway" means the spillway which conveys normal runoff out of the reservoir.

~~(33)~~ "Probable Maximum Precipitation" "(PMP)" means the greatest amount of rainfall of a six-hour duration which would be expected for a given drainage basin as determined by National Weather Service meteorological estimates. The PMP for 10 square miles shall be used for watersheds smaller than 10 square miles.

~~(34)~~ "Probable Maximum Flood" "(PMF)" means the flood that may be expected from the most severe

combination of critical meteorologic and hydrologic conditions that are reasonably possible in the region. The PMF is derived from the probable maximum precipitation (PMP).

~~(35)~~ "Removal" means altering a dam such that it is no longer a dam as defined in these rules.

~~(36)~~ "Reservoir" means any basin which contains or will contain the water impounded by a dam.

~~(37)~~ "Roadbed" means the earth support work of a road prepared for surfacing which is not intended to impound water and which does not impound water continuously.

~~(38)~~ "Spillway" means the feature of a storage or detention dam which is designed to release surplus water, and at diversion dams is a means to bypass flows exceeding those which are turned into the diversion system.

~~(39)~~ "Structural Height" means the height of the dam measured from the natural bed of the stream or watercourse at the downstream toe of the barrier to the low point in the top of the dam.

~~(40)~~ "Wastewater Impoundment Barrier" means an artificial barrier impounding a body of wastewater for the purpose of treatment and designed so that no surface runoff from areas adjacent to the barrier is introduced into the impoundment.

~~(41)~~ "Water Tank" means a vessel designed and used to hold water.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.03~~ 0400-45-07-.03 Duties and Authority.

The general responsibility to administer and enforce the provisions of this Act and all rules and regulations thereunder shall be carried out by the Division of Water ~~Supply~~ Resources of the Department of Environment and Conservation.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.04~~ 0400-45-07-.04 Certificates of Construction, Operation, and Alteration.

(1) General Provisions for Certificates.

(a) Certificate applications shall be made on forms available from the Commissioner. Where there are multiple owners of a dam, each owner shall not be required to file an application if all owners are listed in the application filed by any one of them.

(b) Application for a Certificate shall be made on forms available from the Commissioner and shall include the following information:

1. The name of the dam.

2. The name of the owner.

3. The legal address of the owner and/or lessee.

4. The location of the dam.

5. The type, size and height of the dam.

6. The storage capacity and reservoir surface area for normal and maximum water surface elevation.

7. The purpose or purposes for which the dam or reservoir is to be used.

8. In the case of an application by an owner or lessee of a dam, the names and addresses

of all persons having a real property interest in the dam.

9. Such other plans and detailed information as the Commissioner may deem reasonable and necessary to fulfill his responsibilities hereunder.

(c) An owner making application for an Alteration or Construction Certificate shall engage a qualified professional engineer, practicing in accordance with the registration laws of Tennessee, to plan, to prepare designs and specifications, and to supervise construction. This engineer must be qualified and experienced in the design and construction of dams of the type proposed and may be required to present evidence of his qualifications to undertake the project.

(d) The Commissioner shall examine the application for a certificate of approval and cause an on-the-ground inspection to be made of the existing or proposed dam or reservoir and downstream floodplain. He shall then, within sixty (60) days of the receipt of the completed application for a certificate of approval, either grant the certificate or disapprove it in writing, stating the reasons for disapproval. In the case of applications for construction certificates, applicants who fail to submit, within 18 months from the date of the original application submittal, plans or other detailed information required by the Commissioner must refile an application and plans review fee to obtain a construction certificate.

(e) Certificates are not transferable from one person to another or from one dam to another.

(f) The Commissioner shall be notified of any proposed change in the operation of a dam.

(g) Certificates shall not be granted until all fees required by the provisions of the Act and these rules have been paid.

(h) It shall be a violation of the Safe Dams Act for any person to knowingly submit a false or inaccurate report, data, or information.

(2) Operating Certificate.

(a) No person shall operate a dam without an Operating Certificate.

(b) Application for an Operating Certificate for a new dam already having a Construction Certificate shall be made on forms available from the Commissioner within thirty (30) days of the completion of the dam. The application shall be accompanied by a history of the construction of the dam as maintained by the responsible engineer and by a statement signed by the responsible engineer certifying that the project was constructed in conformity with approved plans and specifications. The history of construction shall include but not be limited to:

1. A record of all geological and foundation data.

2. Date, location, and results of all material tests made.

3. Narrative of problems encountered during construction and changes in design. (Necessity for such changes shall be reported to the Division for approval before proceeding with construction.)

4. Photographs of completed foundations, critical features (such as construction and backfilling around conduits and low level outlet structures) and periodic stages of construction are desirable. These may be required for selected projects.

5. A record of permanent location points, benchmarks, and any instruments embedded in the structure.

6. Plans which show the actual construction of the dam after changes in the original design.

(c) Application for an Operating Certificate for a dam already having an Alteration Certificate shall be made within thirty (30) days from the completion of the alteration on forms available from the

Commissioner. The application shall be accompanied by a statement signed by the responsible engineer certifying that the project was constructed in conformity with the approved plans and specifications. Additional information about the construction, such as that listed in ~~1200-5-7-.04(2)~~ subparagraph (b) of this paragraph, must be included if the Commissioner determines that such information is needed to insure that the alteration is constructed properly.

(d) Any new dam or dam alteration must be constructed in accordance with the approved plans and specifications in order to receive an Operating Certificate.

(e) A new dam must not be allowed to impound water other than transient storage due to storm runoff until an Operating Certificate has been issued.

(f) Application for an Operating Certificate shall be made on forms available from the Commissioner. Any dam owner who is notified by the Commissioner of the need to apply for an Operating Certificate shall submit such application within thirty (30) days.

(g) Whenever legal title to a dam, for which a certificate of approval has been issued, is modified to create real property interests, including leasehold interests, in persons not listed on the application for such certificate, the owner of such dam shall make application for a new certificate within ninety (90) days of the date such interests are created, other provisions of this chapter notwithstanding.

(h) An Operating Certificate shall be issued only on evidence satisfactory to the Commissioner that the requirements of Rule ~~1200-5-7-.06~~ 0400-45-07-.06 are being met for an existing dam and the requirements of Rule ~~1200-5-7-.07~~ 0400-45-07-.07 are being met for a new dam.

(3) Construction Certificate.

(a) No person shall commence construction on a new dam without first obtaining a Construction Certificate from the Commissioner.

(b) Application for a Construction Certificate shall be made at least 60 days prior to the commencement of construction on forms available from the Commissioner.

(c) The Commissioner shall issue a Construction Certificate for construction of a new dam only if the requirements of Rule ~~1200-5-7-.07~~ 0400-45-07-.07 Design Standards for New Dams, Rule ~~1200-5-7-.08~~ 0400-45-07-.08 Engineering Requirements, and Rule ~~1200-5-7-.09~~ 0400-45-07-.09 Fees, are met.

(d) The owner or his agent shall provide written notice to the Commissioner within five days of the date that construction commences and shall include the name of the engineer's inspector. For dams which are to be greater than 30 feet high or which will impound more than 100 acre-feet at the maximum storage capacity, the engineer in charge of construction or his inspector shall be on site whenever construction is occurring. The Commissioner may require such full time inspectors on smaller dams as he deems necessary. During construction the Commissioner may make such inspections as are needed to ensure conformity with approved plans and specifications. The inspection by the Commissioner does not relieve the owner or the responsible engineer from providing adequate inspection of the construction in progress.

(e) If at any time during the progress of the work the Commissioner finds that the work is not being done in accordance with the approved plans and specifications or approved revisions, he shall serve written notice to that effect to the owner. Such notice shall state the particulars in which the approved plans and specifications have not been complied with and may request the suspension of work until such compliance has been effected. If, after due notice, the owner, or his duly authorized agents, fails to comply with the requirements of the above notice, the Certificate by which construction is authorized shall be subject to revocation by the Commissioner.

(f) The owner or his agent shall give written notice of the completion of the dam to the Commissioner within five (5) days of the completion or in time for the Commissioner's representative to be present at the final inspection with the engineer and the contractor, whichever occurs sooner.

(4) Alteration Certificate.

(a) No person shall make an alteration to a dam without first obtaining an Alteration Certificate.

(b) Application for an Alteration Certificate shall be made on forms available from the Commissioner at least 60 days prior to a planned alteration. The application shall identify the dam, state reasons why alteration, repair, or removal is necessary, give details of the proposed work, and provide an evaluation of the effects of the contemplated action. Plans and specifications will accompany the application along with a schedule for accomplishing the proposed project. The plans and specifications shall be submitted in conformance with Rule ~~1200-5-7-.08~~ 0400-45-07-.08. The Commissioner may require full time inspection of any alteration construction by the responsible engineer or his inspector as he determines is necessary to ensure that the construction is performed properly.

(c) The owner or his agent shall provide written notice to the Commissioner within five days of the date that construction commences and shall include the name of the engineer's inspector if an inspector is required. The owner or his agent shall give written notice of the completion of the alteration to the Commissioner within five (5) days of the completion or in time for the Commissioner's representative to be present at the final inspection with the engineer and the contractor, whichever occurs sooner.

(d) In the event of an emergency where immediate repairs are necessary to safeguard life and property, such repairs shall be made immediately by the owner, or his duly authorized agents, and in accordance with Rule ~~1200-5-7-.10~~ 0400-45-07-.10. In such events, the Commissioner shall be notified of the necessary emergency repairs and of work under way. The owner shall give written notice to the Commissioner within two days of learning of the emergency.

(5) Duration of Certificates.

(a) Construction and Alteration Certificates shall be for a single construction event. Construction Certificates shall be valid only for construction that begins within one year of issuance of the certificate.

(b) Alteration and Operating Certificates shall be valid for a definite period of time, not to exceed five (5) years, as determined by the Commissioner and stated on the certificate. In determining the period of approval, the Commissioner may take account of any circumstances pertinent to the situation, including, but not limited to, the size and type of dam, topography, geology, soil conditions, hydrology, climate, use of reservoir and the lands lying in the floodplain downstream from the dam, and the hazard category of the dam.

(6) Imposition of Additional Conditions - Hazard Categories.

(a) In granting a Certificate, the Commissioner may impose such conditions relating to the inspection, operation, maintenance, alteration, repair, use, or control of a dam or reservoir as he determines are necessary for the protection of public health, safety, or welfare.

(b) The Commissioner shall establish hazard categories for dams in accordance with ~~Rule 1200-5-7-.05~~ paragraph (2) of Rule 0400-45-07-.05.

(7) Modification of certificates. The Commissioner may modify a Certificate or the conditions attached to it. Such modifications shall become effective ninety (90) days following issuance by the Commissioner of a revised Certificate, except when the Commissioner finds that a state of emergency exists, and that life or property would be endangered by delay. In case of an emergency declared by the Commissioner, the new conditions shall be effective immediately.

(8) Suspension, Revocation, or Modification. The Commissioner may revoke, suspend, or modify any Certificate issued pursuant to the Act or deny the issuance of a Certificate for cause including, but not limited to the following:

(a) Violation of any condition of said Certificate.

(b) Obtaining a Certificate by misrepresentation, or failure to disclose fully all relevant facts.

(c) Violation of any provision of the Act or any rule promulgated thereunder.

(9) Rights of Appeal. Any applicant aggrieved by the denial of a Certificate or any term or condition in a Certificate may appeal to the Commissioner for a hearing within sixty (60) days of the date of issuance of the Certificate or the denial of a Certificate. After sixty (60) days no such appeal may be filed. All appeals shall be conducted in accordance with T.C.A. § 69-11-118 ~~of the Act~~ and Uniform Administrative Procedures Act, T.C.A. §§ 4-5-301 et seq.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.05~~ 0400-45-07-.05 Classification of Dams.

Dams will be classified in accordance to size, hazard potential, and design characteristics in order to formulate a priority basis for selecting dams to be scheduled in the inspection program and also to provide compatibility between guideline requirements and involved risks. When conditions at the dam or the hazard potential changes, the dam may be reclassified, and, if necessary, the dam must be upgraded to meet the standards of the new classification. The downstream conditions will be evaluated for hazard potential reclassification at least every 5 years.

(1) Size. The classification for size is based on the height of the dam and storage capacity in accordance with the table below. The height of the dam is established with respect to the maximum water storage elevation measured from the natural bed of the stream or watercourse at the downstream toe of the barrier, or if it is not across a stream or watercourse, the height from the lowest elevation of the outside limit of the barrier, to the maximum water storage elevation. For the purpose of determining project size, the maximum storage elevation will be considered equal to the top of dam elevation as defined in ~~Rule 1200-5-7-.02~~ paragraph (26) of Rule 0400-45-07-.02. Size classification will be determined by either storage or height, whichever gives the larger size category. For size classification purposes, fractions of heights and storages shall be rounded down to the nearest whole number, e.g., 49.9 feet would be classified in the 20 to 49 feet category.

Size Classification

Category	Storage (Ac-Ft)	Height (Ft)
Small	30 to 999	20 to 49
Intermediate	1,000 to 49,999	50 to 99
Large	50,000 or greater	100 or greater

(2) Hazard Potential Category.

(a) Every dam will be assigned a hazard potential category to reflect the damage which might occur in the event of a dam failure, either structurally or operationally. The hazard potential will take into account a number of factors which will include, but not be limited to: the physical characteristics and degree of development of the site and valley downstream; the relationship of the site to industrial and residential areas; use of downstream properties throughout the danger reach; geological considerations; public and private uses of the impoundment or reservoir; and probable future downstream development.

(b) The hazard potential category of a dam may impose different standards at different sites for design and conditions for issuance of a Certificate and will have a bearing upon the frequency of inspections by the Commissioner. The following categories are established to permit the association of criteria with the damage that might result from such a failure.

1. Category 1 dams are located where failure would probably result in any of the following: loss of human life; excessive economic loss due to damage of downstream properties; excessive economic loss, public hazard, or public inconvenience due to loss of

impoundment and/or damage to roads or any public or private utilities.

2. Category 2 dams are located where failure may damage downstream private or public property, but such damage would be relatively minor and within the general financial capabilities of the dam owner. Public hazard or inconvenience due to loss of roads or any public or private utilities would be minor and of short duration. Chances of loss of human life would be possible but remote.

3. Category 3 dams are located where failure may damage uninhabitable structures or land but such damage would probably be confined to the dam owner's property. No loss of human life would be expected.

(3) Removal of Dams. A dam shall be considered removed if it meets one of the following criteria.

(a) A portion of the dam is removed such that at the invert of the removed portion the dam is less than six feet high or has less than 15 acre-feet of storage capacity.

(b) A portion of the dam is removed or an open-channel spillway is built such that the invert of the removed portion is at the approximate elevation of the top of the tailings or sediment in the impoundment and the dam can no longer permanently impound water. In the case of embankment dams that receive surface runoff from areas adjacent to the impoundment, the open channel must be sufficiently large to preclude overtopping during the Freeboard Design Storm specified in ~~Rule 1200-5-7-.06~~ subparagraph (3)(b) of Rule 0400-45-07-.06 or ~~Rule 1200-5-7-.07~~ subparagraph (4)(d) of Rule 0400-45-07-.07, respectively.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.06~~ 0400-45-07-.06 Standards for Existing Dams.

(1) Stability. All dams shall be stable. There shall not be excessive cracks, sloughing, seepage or other signs of instability or deterioration. In cases where the stability of the dam is questionable, it shall be the responsibility of the owner to either demonstrate to the Commissioner that the dam is stable or drain the reservoir and remedy the unstable condition prior to refilling the reservoir.

(2) Slope Protection

(a) Earth embankments shall be protected from surface erosion by appropriate vegetation or some other type protective surface such as riprap or paving and shall be maintained. Examples of appropriate vegetation include, but are not limited to, Bermuda grass and fescue. All inappropriate vegetation such as honeysuckle, briers, bushes, and trees shall be removed from the dam. Some trees may be allowed to remain on a dam if the Commissioner concurs with a justification from a qualified engineer for doing so. Such justification must satisfy the Commissioner that the number, size, location, root characteristics, etc., of such trees will not adversely affect the dam's structural integrity and safety nor impede inspection.

(b) The root mass of all trees larger than four (4) inches in diameter as measured at two feet above ground level shall be grubbed out and the hole backfilled with suitable fill material properly compacted. Smaller trees may either be cut at ground level or be removed as specified above. The Commissioner may require an engineer to oversee the tree removal.

(3) Emergency Spillway.

(a) All dams shall have an emergency spillway system with capacity to pass a flow resulting from a 6 hour design storm indicated in subparagraph (b) ~~below~~ of this paragraph for a hazard classification appropriate for the dam. However, if the applicant's engineer provides calculations, designs, and plans to show that the design flow can be stored, passed through, or passed over the dam without failure occurring, or if he can successfully demonstrate to the Commissioner by engineering analysis that the dam is a safe structure and can certify that the dam is sufficient to protect against probable loss of human life downstream, said dam design may be approved by the Commissioner.

(b) Minimum Freeboard Design Storms.

Hazard Potential Category	Size	Freeboard Design Storm (6 Hours)
Category 3 (Low)	Small	100 year
	Intermediate	1/3 PMP
	Large	1/2 PMP
Category 2 (Significant)	Small	1/3 PMP
	Intermediate	1/2 PMP
	Large	PMP
Category 1 (High)	Small	1/2 PMP
	Intermediate	PMP
	Large	PMP

(c) No dam which is modified after original construction to increase its design storm to a 1/2 PMP or greater shall be required to pass a larger design storm unless the dam itself is enlarged or its normal or maximum storage volume is increased.

(4) Concrete and Masonry Dams. Concrete and/or masonry dams shall be structurally sound and shall have joints free of trees and other vegetation and shall show no signs of significant structural deterioration such as excessive cracks, spallation, efflorescence and exposed reinforcing steel.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.07~~ 0400-45-07-.07 Design Standards for New Dams.

(1) Design of Dams. Designs of dams shall conform to accepted practices and procedures of the engineering profession. Design references developed by the U.S. Army Corps of Engineers, Soil Conservation Service, and the Bureau of Reclamation may be used although the limiting criteria must be in accordance with these rules.

(a) All dams will be considered on an individual basis and reviewed in accordance with prevailing practices that are currently accepted by the engineering profession.

(b) All structures other than Category 3 dams constructed before 2008 shall be designed to withstand seismic accelerations of the following intensities: Zone 1 = 0.025g, Zone 2 = 0.05g, Zone 3 = 0.15g. Zones refer to "Geologic Hazards Map of Tennessee" by Robert A. Miller, 1978. All dams constructed during or after 2008 shall be designed to withstand the peak ground acceleration for an earthquake with a 10% probability of exceedance in 50 years as determined by the United States Geological Survey at the time the construction permit is issued. A different peak ground acceleration may be used if site specific studies using accepted engineering practices determine that a different value is appropriate.

(c) A complete engineering report, plans, and specifications shall be submitted for each dam.

(d) A complete geotechnical report shall be submitted as an integral part of the engineering report for all Hazard Potential Category (HPC) 1 and 2 dams (defined in Rule ~~1200-5-7-.05~~ 0400-45-07-.05). For HPC 3 dams, sufficient investigation will have to be made to determine if the site and the fill material to be used are suitable, and this information will have to be included in the engineering report.

(e) A hydrologic/hydraulic analysis shall be submitted as an integral part of the engineering report for all dams. A breach analysis shall be submitted for all HPC 1 and HPC 2 dams and, for the former, shall be included in the Emergency Action Plan. The breach analysis must use surveyed cross sections at all stations where homes or other structures may be flooded. A sunny-day breach shall be modeled with the impoundment at the elevation of the emergency spillway invert when the failure begins, or, if there is no emergency spillway, at the elevation of the inlet of the

principal spillway. Breach modeling under sunny-day, overtopping, or any other conditions, is site specific.

(f) All Category 1 dams shall submit to the Commissioner an Emergency Action Plan. This plan shall include, but not be limited to, the following:

1. Inundation information and an inundation map based on the breach analysis.

2. Procedures for notification of people downstream and law enforcement and other government agencies.

3. Resources for emergency actions such as contractors, equipment supply businesses, etc.

(g) Design calculations for all major components of the structure, i.e., spillways, pipes, etc., shall be included in the engineering report.

(2) Principal Spillways.

(a) All component parts of the principal spillway except attached gates and trash racks will be of equal durability. The structural design criteria and detailing of such spillways will conform to recognized standards and codes of practice.

(b) In requiring the capacity of the principal spillway, the Commissioner may consider: (1) the benefits that accrue to the reduction of the discharge rate, (2) damages that may result from prolonged storage in the reservoir, (3) damages that may result from prolonged outflow, (4) the possibility of occurrence of significant runoff from two or more consecutive storm events within the time required to empty the reservoir, and (5) limitations in water rights or other legal requirements.

1. All conduits under a dam shall support the external loads imposed with an adequate factor of safety. They must withstand the internal hydraulic pressures without leakage under full external load and settlement. They must convey water at the design velocity without damage to the interior surface of the conduit.

2. Principal spillway conduits under earth dams shall be designed to support fill heights greater than the original constructed height where there is a reasonable possibility that it may become desirable to raise the embankment height at a later date to incorporate additional storage.

3. Principal spillway conduits shall be of reinforced concrete pipe, cast-in-place reinforced concrete, ductile iron pipe, or plastic pipe. Fill height and foundation conditions require special considerations for ductile iron pipe and plastic pipe so that each use will be checked on an individual basis; cradling or encasement in concrete may be required. Welded steel pipe is not acceptable for Category 1 and Category 2 dams, and corrugated metal pipe is not acceptable for any class of dam.

4. Principal spillway conduits shall be field tested for watertightness before backfilling. This requirement as well as the method of testing shall appear on the plans or in the specifications.

5. Rigid principal spillway conduits shall be designed as positive projecting conduits.

6. All reinforced concrete water pipe - steel cylinder type - prestressed, all reinforced concrete water pipe - steel cylinder type - not prestressed, and all reinforced concrete water pipe - noncylinder type - not prestressed, shall meet the AWWA specifications effective at the time of application.

7. Elliptical or other systems of reinforcement requiring special orientation of pipe sections are not permitted in pipe drop inlet barrels.

8. Reinforced concrete pipe, with or without cradles, shall be designed to support at least 12 feet of earth fill above the pipe at all points along the conduit.

(c) The minimum inside diameters of pipes shall be as follows:

1. Category 3 dams: The minimum diameter of the principal spillway barrel will be 18 inches for fill heights up to 50 feet and 24 inches for greater heights; or

   Where the drop inlet is designed hydraulically in such a way that the flow in the barrel under all possible conditions of discharge and foundation consolidation is positively known to be open channel flow with the water surface in the conduit subject to atmospheric pressure only, the minimum diameter shall be 18 inches; or

   Where welded steel pipe is used, the principal spillway shall be designed in accordance with conditions presented in ~~Rule 1200-5-7-.07(2)~~ subparagraph (e) of this paragraph.

2. Category 2 dams: The minimum diameter of the principal spillway barrel shall be 24 inches.

3. Category 1 dams: The minimum diameter of the principal spillway barrel shall be 30 inches.

4. Smaller conduits may be used if detailed calculations show them to be hydraulically and structurally adequate and all other requirements of this rule ~~1200-5-7-.07~~ are met.

(d) Where the barrel and cradle or bedding are to rest directly on firm bedrock thick enough so that there is essentially no foundation consolidation under the barrel, the cradle under the pipe need not be articulated.

(e) Principal spillways of welded steel pipe may be used for Category 3 dams under the following conditions, all of which must be met:

1. The minimum diameter of the barrel will be 18 inches.

2. The height of fill over the pipe will be less than 35 feet.

3. Welded steel pipe conduits are to conform to American Society of Testing Materials (ASTM) specifications A53, A120, A135, A139, or A134 and are to be structurally designed as rigid pipe. A joint extension safety margin of 1.5 inches is to be provided for conduits on yielding foundations. Welded pipe is to be protected by an approved exterior coating.

(f) Conduit joints will be designed and constructed to remain water tight under maximum anticipated hydrostatic head and maximum probable conditions of joint opening, including the effects of joint rotation, and must have a margin of safety where required.

(g) Trash racks will be designed and built to provide positive protection against clogging of the spillway at any point. The average velocity of flow through a clean trash rack will not exceed 2.5 feet per second with the water elevation in the reservoir five feet above the top of the trash rack or at the crest of the emergency spillway, whichever is lower. Velocity will be computed on the basis of the net area of opening through the rack.

For dry dams, a trash rack may be used in lieu of a ported concrete riser. The principal spillway trash rack will extend sufficiently above the anticipated sediment elevation at the inlet to provide full design flow through the spillway with velocities through the net area of the trash rack above the sediment elevation not in excess of two feet per second when the water surface in the reservoir is five feet above the top of the trash rack.

(h) All closed conduit principal spillways designed for pressure flow will have an anti-vortex device.

(3) Drawdown Facilities.

(a) All new dams shall have a drawdown facility. This facility shall be capable of draining the reservoir in ten (10) days or less. It may be assumed that this requirement has been met if seventy-five (75) percent of the liquid volume from the normal water storage elevation has been evacuated in the ten (10) day period. The use of a longer period must be justified.

(b) The necessary drawdown facility for any dam shall be made an integral part of the principal spillway structure if the principal spillway configuration warrants it, but in no case will the drawdown facility be valved on the downstream side of the embankment. Siphon facilities will be accepted after proper engineering justification.

(c) ~~The above stated requirement~~ Subparagraph (b) of this paragraph does not apply in the case of a water supply line through the dam, but in such cases provision must be made for a positive shutoff on the upstream side of the structure.

(d) Drawdown systems shall be maintained in an operable condition. Drawdown valves shall be opened and closed at least annually to ensure operability.

(4) Emergency Spillways.

(a) An emergency spillway shall be provided for each structure, unless the principal spillway is large enough to pass the routed freeboard hydrograph discharge and the debris that comes to it. A conduit type principal spillway having a barrel with a cross-sectional area of 20 square feet or more, an inlet which will not clog, and an elbow designed to facilitate the passage of debris, is the minimum size and design that may be utilized without an emergency spillway. If a principal spillway of this type and size is not provided, danger from clogging requires the use of an emergency spillway regardless of the volume of storage provided.

(b) A single uncontrolled open channel spillway may be used for all purposes provided it is designed to accommodate all discharges, including the freeboard storm, without damage to the structure. However, a positive means to drain the reservoir must also be provided.

(c) Emergency spillways shall be proportioned so that they will pass the freeboard hydrograph at the safe velocity determined for the site. They shall have sufficient capacity to pass the freeboard hydrograph with the water surface in the reservoir at or below the maximum storage elevation.

(d) Minimum Freeboard Design Storms

Size	Freeboard Design Storm (6 Hour)
Small	½ PMP
Intermediate	PMP
Large	PMP

(e) All dams shall have an emergency spillway system with capacity to pass a flow resulting from a 6 hour design storm indicated in subparagraph (d) ~~above~~ of this paragraph for the size corresponding to the dam. Any new dam constructed between October 3, 1987, and February 19, 2001, shall be required to pass the Freeboard Design Storm specified in subparagraph ~~1200-5-7-.06~~ (3)(b) of Rule 0400-45-07-.06. However, if the applicant's engineer provides calculations, designs, and plans to show that the design flow can be stored, passed through, or passed over the dam without failure occurring, or if he can successfully demonstrate to the Commissioner that the dam is a safe structure and can certify that the dam is sufficient to protect against probable loss of human life downstream, said dam design may be approved by the Commissioner. The establishment of the criteria in subparagraph (d) ~~above~~ of this paragraph does not eliminate the need for sound engineering judgment but only establishes the lowest limit of design considered acceptable.

(f) The relationship between the water surface elevation in the reservoir and the discharge through

the emergency spillway shall be evaluated by computing the head losses in the inlet channel upstream of the control section, or if a control section is not used, by computing the water surface profile through the full length of the spillway. Manning's formula will be used to evaluate friction losses and determine velocities.

(g) The freeboard hydrograph shall be routed through the reservoir starting with the water surface at the elevation of the principal spillway inlet.

(h) A vegetated earth or unlined emergency spillway shall be approved when computations indicate that it will pass the design storm without jeopardizing the safety of the structure. The risk of recurring storms, excessive erosion, and inadequate vegetative cover will be considered acceptable in such a spillway when its average frequency of use is predicted to be not more frequent than once in 25 years for Category 3 dams, once in 50 years for Category 2 dams, and once in 100 years for Category 1 dams.

1. Vegetated and earth emergency spillways may be open channels and may consist of an inlet channel, a control section and an exit channel. Subcritical flow exists in the inlet channel and the flow may be supercritical in the exit channel.

2. Vegetated emergency spillways may be trapezoidal in cross-section and shall be protected from damaging erosion by a grass cover. They shall be used at sites where a vigorous grass growth can be sustained by normal maintenance without irrigation.

3. Earth spillways may be used in those areas where vegetative growth cannot be maintained. They are similar to vegetated spillways but are designed for lower permissible velocities and less frequent use. The needed maintenance after a flow occurs is the responsibility of the certificate holder.

4. Earth and vegetated emergency spillways are designed on the basis that some erosion or scour is permissible if its occurrence is infrequent, if maintenance facilities are provided, and if damage from a severe storm, as represented by the freeboard inflow hydrograph, will not endanger the structure.

5. A Manning's "n" of 0.040 may be used for determining the velocity and capacity in vegetated spillways. Permissible velocities in earth spillways may be based on an "n" value of 0.020 but the capacity of earth spillways will be based on an appraisal of the roughness condition at the site.

6. When the anticipated average use of a vegetated emergency spillway is more frequent than once in 50 years, the maximum permissible velocity will be in accordance with the values given below. The values may be increased 10 percent when the anticipated average use is not more frequent than once in 50 years or 25 percent when the anticipated average use is not more than once in 100 years. The maximum velocity limitations given below for vegetated or earth emergency spillways apply to the exit channel.

7. The values given will be the upper limit for all grasses. Values for grasses or grass mixtures will be determined by comparison with the values shown, with due consideration given to the growth characteristics and density attained in the local area by the species under consideration.

8. Where bona fide studies or investigations have been made to determine the permissible velocity for a specific soil and site, these values may be used in lieu of those shown below.

9. Maximum Permissible Velocities for Vegetated Earth Spillways.

Grasses or Grass Mixtures

Soil Type	Slope	Maximum Permissible Velocity
Erosion Resistant	0-5 %	8.0 fps
	5-10%	7.0 fps
Easily Erodible	0-5 %	6.0 fps
	5-10%	5.0 fps

(5) Earth Embankments.

(a) Sufficient freeboard shall be provided to prevent overtopping with the passage of the freeboard hydrograph plus the additional freeboard required by the site for wave action.

(b) The top width of earth embankments will not be less than the value given by the following equation:

$$W = \frac{H + 35}{5}$$

where H = height of embankment in feet.

W = minimum top width of embankment in feet.

(c) The earth embankment will be riprapped or have other wave erosion protection provided over the full range in stage between three feet above and below the normal pool elevation.

(d) All dams shall be designed and constructed to prevent the development of instability due to excessive seepage forces, uplift forces, or loss of materials in the embankment, abutments, spillway areas, or foundation. Seepage analysis for design and inspection during construction shall be in sufficient detail to prevent the occurrence of critical seepage gradients. All dams permanently impounding water shall be constructed with an embankment toe drain with drain pipes installed to discharge the seepage.

(e) All dams shall have a permanent bench mark monument located near the embankment in undisturbed soil or in bedrock. This bench mark shall be detailed in the plans and specifications.

(f) All dams shall be protected from surface erosion by appropriate vegetation or some other type of protective surface such as rip-rap or paving and shall be maintained. Examples of appropriate vegetation include, but are not limited to, Bermuda grass and fescue. All inappropriate vegetation such as honeysuckle, briers, bushes and trees shall be kept off the dam by routine mowing.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.08~~ 0400-45-07-.08 Engineering Requirements.

(1) Engineering Standards. The design engineer shall take into consideration the standards and recommendations made in accepted publications concerning dams, and also the current practices of the various agencies that may be concerned with the design and construction of dams.

(2) Engineering Drawings. All drawings shall be submitted in the form of permanent type drawings of a standard and uniform size. Drawings that do not conform to standard practices and drawings that are not easily legible will not be reviewed.

(3) Engineering Plans. At least four (4) complete sets of construction plans and specifications shall be submitted to the Commissioner. Upon approval, each submitted copy shall be stamped accordingly, two copies retained for the Division's file, and the remaining copies returned to the applicant. An approved copy bearing the stamp of approval must be kept at the construction site during all times of construction.

(4) Engineering Report. The engineering report shall be submitted for review prior to or along with the submittal of the plans and specifications. The engineering report is the basis of the design and shall include, but not be limited to, the data and analyses required by Rule ~~1200-5-7-.07~~ 0400-45-07-.07 for new dam construction or by Rule ~~1200-5-7-.06~~ 0400-45-07-.06 for alterations to existing dams.

(5) Plans and Specifications. The plans and specifications shall provide the details of the structure designed in the engineering report, the construction materials, the construction methods, and shall include, but not be limited to, the following:

(a) Standard and uniform paper. Preferably 24" x 36".

(b) Cover sheet.

(c) Site plan.

(d) Embankment plan and profile views.

(e) Spillways plan and profile views.

(f) Seepage control detail including collection system.

(g) Wave protection detail.

(h) Service spillway outfall structure and energy dissipator details.

(i) Location of permanent bench mark.

(j) Location sketch.

(k) Actual mean sea level (MSL) elevations of the dam and its appurtenant works.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

~~1200-5-7-.09~~ 0400-45-07-.09 Fees.

(1) Project Review Fee. A project review fee will be charged by the Commissioner for all new dam and reservoir construction. The fee is to accompany the application for a Construction Certificate. New dams will not be charged for the inspection fee for the initial Operating Certificate. The fee will be based upon the size categories shown below, but in no case shall the total project review fee exceed one percent (1%) of the total estimated cost of the dam.

Schedule of Charges

Height of Dam	Charge for Project Review
6 - 40 feet	$1000
41 - 60 feet	$1500
greater than 60 feet	$2000

If a construction certificate expires without construction having begun, the certificate holder may re-apply for a new construction certificate within one year of the expiration date of the original certificate and pay a project review fee of only $500, provided that no substantial changes have been made to the plans and specifications.

(2) Safety Inspection Fee. Fees will be charged for Safety Inspections by the Division. The fee is to accompany the application for an Operating Certificate. The fee will be $500 per inspection. All fees and charges shall be payable only by check or money order to the State of Tennessee.

(3) No fees shall be imposed for inspections of dams which are constructed, operated, or maintained by a watershed district pursuant to T.C.A. § 69-7-101 et seq.

Authority: T.C.A. §§ 69-11-101 et seq., 68-203-101 et seq. and 4-5-201 et seq.

1200-5-7-.10 Emergency Action by Owner.

Nothing in T.C.A. § 69-11-117 ~~of the Act~~, whereby the Commissioner has the authority to act under a state of emergency requested of and declared by the Governor, nor any provisions or requirements for Certificates, shall be construed to relieve or prevent an owner or operator of a dam of the legal duties, obligations, or liabilities incident to the ownership or operation of the dam. In the event of an emergency where immediate repairs are necessary to safeguard life and property, such repairs shall be made immediately by the owner or his duly authorized agents. In such events, the Commissioner shall be promptly notified of the necessary emergency repairs and of work under way, if any, and such work shall conform to such requirements as specified by the Commissioner.

Authority: T.C.A. §§ 69-11-101 et seq., and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Commissioner on _____ (mm/dd/yyyy), and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 10/18/11

Rulemaking Hearing(s) Conducted on: (add more dates). 12/13/11, 12/14/11 and 12/16/11

Date: _____

Signature: _____

Name of Officer: Robert J. Martineau, Jr.

Title of Officer: Commissioner

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

_____
Robert E. Cooper, Jr.
Attorney General and Reporter

_____
Date

Department of State Use Only

Filed with the Department of State on: _____

Effective on: _____

_____
Tre Hargett
Secretary of State

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

There were no comments on the rule changes.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

(1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

The rule changes will have no impact. The purpose for the rule amendments were to perform re-numbering to Chapter 0400-45-07 from Chapter 1200-05-07 and to make editorial/citation corrections.

(2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

There should be no additional costs associated with the rule compliance.

(3) A statement of the probable effect on impacted small businesses and consumers.

The rule changes will have no impact. The purpose for the rule amendments were to perform re-numbering to Chapter 0400-45-07 from Chapter 1200-05-07 and to make editorial/citation corrections.

(4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

There should be no effect on small businesses or consumers.

(5) A comparison of the proposed rule with any federal or state counterparts.

There is no comparable federal rule.

(6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

Exemption of small businesses from the Safe Dams Act would put public safety at risk from dam failures on unregulated dams.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 "any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (http://state.tn.us/sos/acts/106/pub/pc1070.pdf) of the 2010 Session of the General Assembly)

The Department does not anticipate an impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

(A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

These rule amendments move the rules to Chapter 0400-45-07 from Chapter 1200-05-07 and make editorial/citation corrections.

(B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

The rules were promulgated under the Tennessee Safe Dams Act, T.C.A. §§ 69-11-101 et seq. There is no comparable federal law.

(C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Persons who own dams that are not farm ponds. Federal dams are exempt.

(D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Department is not aware of any.

(E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars ($500,000), whichever is less;

There should be no impact.

(F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Tom Moss
Division of Water Resources
6th Floor L & C Tower
Nashville, Tennessee

(G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Alan M. Leiserson
Legal Services Director
Office of General Counsel

(H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Tennessee Department of Environment and Conservation
20th Floor L & C Tower
Nashville, Tennessee 37243-1548
(615) 532-0131
Alan.Leiserson@tn.gov

(l) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Department is not aware of any.