

**Secretary's Order No. 2009-S-0044**

**Re: APPROVING FINAL REGULATION 7 DE ADMIN. CODE 5103  
(DELAWARE DAM SAFETY REGULATIONS)**

Date of Issuance: **November 16, 2009**

Effective Date: **December 11, 2009**

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") the following findings, reasons and conclusions are entered as an Order of the Secretary in the above-referenced rulemaking proceeding.

**Background and Procedural History**

This Order considers proposed regulation entitled "Delaware Dam Safety Regulations." The Department's Division of Soil and Water Conservation commenced the regulatory development process with Start Action Notice 2006-16, which was approved on ....DSWC's Dam Safety Program held 4 meetings with the regulatory advisory committee, as required by the Dam Safety Act (Act), and a public workshop on December 11, 2008.

The Department published the proposed regulations in the April 1, 2009 *Delaware Register of Regulation* and held a public hearing on April 27, 2009. The Department's presiding hearing officer, Robert P. Haynes, prepared a Hearing Officer's Report dated November 9, 2009 (Report). The Report recommends certain findings and the adoption of as a final regulation as "Delaware Dam Safety Regulations," attached to the Report as Appendix A (Regulation).

**Findings and Discussion**

I find that the Regulation is well-supported by the record developed by DSWC and adopt the Report to the extent it is consistent with this Order. DSWC's experts

developed the record and the Regulation was drafted with the cooperation and coordination by members of the regulatory advisory committee. In addition, DSWC held a public workshop. As a result of the extensive informal regulatory development process, the proposed regulation only received two public comments. DSWC and the Report recommend that one comment's editorial and clarifying changes be reflected as non-substantive changes and the other comment was on a specific problem with one pond that did not require any change to the proposed regulation.

I find that the Department's experts in DSWC fully developed the record to support adoption of the final regulations. As final regulations, the Department will have improved authority to regulate dams, particularly the existing 53 dams that are subject to the Department's regulation. The regulation also will regulate to any new dams that fall within the size and classification that are subject to the regulation. The regulations will require annual inspections of high hazard dams and inspections of the significant hazard dams every two years. All dams will be subject to review and supervision by a licensed Delaware professional engineer. The dams that are regulated are public owned dams that have a certain height or size of impoundment or hazard classification to warrant regulation under the Act, or any privately owned dam that may seek to be regulated by agreement.

The regulation adopted by this Order provides more details and clarification to the owners of dams regulated by the Act. The regulation's procedures set forth how to apply to the Department for permission to design, construct, operate, maintain, inspect and abandon a regulated dam. The regulation that this Order adopts will provide a comprehensive and sound basis to regulate those dams in Delaware that are subject to

regulation under the Act. In conclusion, the following findings and conclusions are entered:

1.) The Department has jurisdiction under its statutory authority to issue an Order adopting this final regulation;

2.) The Department provided adequate public notice of the proposed regulation and provided the public with an adequate opportunity to comment on the proposed regulations, including at a public hearing;

3.) The Department held a public hearing on the proposed regulations in order to consider public comments before making any final decision, and has considered all relevant and timely public comments it received;

4.) The Department's Hearing Officer's Report, including its recommended record and the Recommended Regulation, as set forth in Appendix A, are adopted to provide additional reasons and findings for this Order;

5.) The Recommended Regulation does not reflect any substantive changes from the Proposed Regulation published in the April 1, 2009, *Delaware Register of Regulations*;

6.) The Recommended Regulation should be adopted as a final regulation because it is consistent with the Act and its purposes to reduce the risk of loss of life and property damage from a failure of a dam subject to the Act's regulation, will enable the Department to administer its duties under the Act, and is well supported by documents in the record; and that

7.) The Department shall submit this Order approving the final regulation to the *Delaware Register of Regulations* for publication in its next available issue, and

provide such other notice as the law and regulation require and the Department determines is appropriate.

/s/ \_\_\_\_\_  
Collin P. O'Mara  
Secretary

## HEARING OFFICER'S REPORT

TO: The Honorable Collin P. O'Mara  
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire  
Senior Hearing Officer, Office of the Secretary  
Department of Natural Resources and Environmental Control

RE: **PROPOSED REGULATION TO ADOPT 7 DE ADMIN. CODE 5103  
(DELAWARE DAM SAFETY REGULATIONS)**

DATE: November 9, 2009

### I. PROCEDURAL HISTORY

On February 22, 2009, the Secretary of the Department of Natural Resources and Environmental Control (Department), approved the Division of Soil and Water Conservation's (DSWC) Start Action Notice (SAN) No. 2006-15 commencing the Department's regulatory development process for promulgating regulations to administer the Department's responsibilities under the Dam Safety Act, *7 Del. C. Chap. 42. (Act)*.

DSWC held 4 meetings with a regulatory advisory committee of 17 members<sup>1</sup> to assist in the development and review of drafts of a proposed regulation before formally published "Delaware Dam Safety Regulations" (Proposed Regulation) as a proposed regulation in the April 1, 2009 *Delaware Register of Regulations*. If approved as a final regulation it would be codified at *7 DE. Admin. Code 5103*. The Department also provided public notice of the Proposed Regulation in newspapers of general circulation and of an April 27, 2009 public hearing, which is held to receive public comments.

On April 22, 2009, the American Council of Engineering Companies (ACEC) provided written comments. At the public hearing, DSWC developed a record and one member of the public spoke. On June 17, 2009, DSWC provided a revised version of the

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<sup>1</sup> Section 4208 of the Act provides for this committee's role in the regulatory development process.

Proposed Regulation, a copy of which is attached hereto as Appendix A, and a list of supporting documents.

## **II. SUMMARY OF THE RECOMMENDED RECORD**

I recommend that the record include the following documents: 1) the 33 page verbatim transcript of the public hearing, 2) documents admitted as exhibits at the public hearing by the public; 3) written public comments submitted April 22, 2009 by ACEC and 3) the Department written documents identified in the Department's June 17, 2009 email, which include the following source materials:

- 1) Delaware legislation – Amend Title 7 of Delaware Code by enacting in Part IV a new “Chapter 42. Dam Safety”
- 2) The Development of a Dam Safety Program for the State of Delaware, 2003. Prepared for FEMA, DEMA, and DNREC by the Water Resources Agency (University of Delaware, College of Human Services, Education, and Public Policy, Institute for Public Administration).
- 3) Model State Dam Safety Program, Federal Emergency Management Agency, FEMA 316, March 1998.
- 4) New Jersey Dam Safety Standards, N.J.A.C. 7:20, April 28, 2000, Amended June 5, 2000.
- 5) State of Maryland, Title 26 Department of the Environment, Subtitle 17 Water Management, Chapter 04 Construction on Non-Tidal Waters and Floodplains
- 6) Pennsylvania Code Title 25 Environmental Protection, Department of Environmental Protection, Chapter 105 Dam Safety and Waterway Management.

In addition, DSWC provided the workshop presentations and the public hearing presentation and a regulatory flexibility act analysis that I recommend be included in the record.

Attending the hearing for DSWC were Frank Piorko, Administrator of the State Drainage, Dam Safety and Stormwater Program (Program), David Twing, P.E., Dam Safety Engineer in the Program, and Joe Kula, P.E., the Program's consulting engineer with URS Corporation. Mr. Piorko explained how the Department had been working with the regulatory advisory committee consisting of representatives of the owners of dams that would be impacted by the Proposed Regulation. Mr. Kula spoke of his involvement in assisting the Program since 2003 to regulate dams, including meetings and site surveys of the selected dams that were to be regulated. He described how he met with dam safety officials in Maryland, Pennsylvania and New Jersey to discuss their states' regulation of dams. He mentioned the concern in drafting the Proposed Regulation with the possible interaction with existing Department environmental regulations. He described the public workshop held as part of the informal regulatory development process. He also visited the Hoopes Reservoir, Coolspring Reservoir, Porter Reservoir and visited approximately 100 other dam sites in Delaware. He mentioned relying upon the Jerry Kaufman's 2003 study for the University of Delaware' and the Federal Emergency Management Agency's (FEMA) model dam safety regulation in Publication 316. He discussed the classification of dams by their hazard potential. David Twing provided a history of the Proposed Regulation, beginning before the Act. Once the Act was enacted into law in July 2004, he stated that the Department received funds to administer the program in 2005 and formed a regulatory advisory committee consisting of 17 members that met 4 times. This committee reviewed 5 drafts of the Proposed Regulation with the final draft reviewed November 2008. DSWC held a public workshop on December 11, 2008 and provided public notice of the hearing in March and

formal publication occurred April 1, 2009. He proceeded to review and provide a section by section summary of the Proposed Regulation.

The public comment from a member of the public was from Kurt Brown, who presented document to support his concern with Concord Pond and the accumulation of debris at a bridge that was constructed over a portion of that waterway. He questioned whether the Proposed Regulation would regulate the impounded body of water.

In a June 17, 2009 email, Mr. Twing provided a revised version of the Proposed Regulation that reflected non-substantive changes the Program recommended be adopted in response to comments from the American Council of Engineering Companies. The changes were characterized as minor edits and clarifying language. The Program recommended adoption of this version

### **III. RECOMMENDED FINDINGS AND DISCUSSION**

I recommend a finding that the recommended record identified above supports adopting the final regulation, as set forth in Appendix A (Recommended Regulation). I recommend a finding that the Recommended Regulation reflects non-substantive changes from the Proposed Regulation in that they are minor edits and clarifications that do not warrant consideration at another public hearing.

The Recommended Regulation is supported by the expertise of DSWC, which is based upon professional engineering judgment that the Recommended Regulation has a rational basis and reasonably related to protecting the environment and the public from an undue risk of adverse consequences from a dam failure. The Recommended Regulation I find, if adopted, will provide for the comprehensive regulation of the dams in Delaware that the Act directs the Department to regulate to ensure that the regulated dams shall be

properly designed, constructed, operated, inspected, maintained and abandoned. The Recommended Regulation is reasonable, well-supported, and consistent with the Act.

The supporting documents indicate that the Recommended Regulations follow the regulatory structure set forth by the Act, which has its purpose “to provide for the proper design, construction, operation, maintenance, and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of dams and to prevent injuries to persons, damage to downstream property and loss of reservoir storage.” *7 Del C. §4201*.

I recommend a finding that the Recommended Regulation will enable the Department to effectively and efficiently regulate the dams that are subject to the Act, which are dams: 1) owned by the State, a county, a municipality, or a quasi-governmental agency, a) 25 or more feet in height, or b) can impound maximum capacity of 50 acre feet, or c) the Department determines to be a significant-or high-hazard potential structure due to location or other physical characteristics, or 2) privately owned dam based upon a written request seeking to be regulated.

The Department survey has determined that Delaware has 323 dams, but that only 53 would be regulated under the Act. Of these, 8 high hazard dams are in New Castle County, 14 high hazard and 2 significant hazard dams are in Kent County, and 26 high hazard and 3 significant hazard dams are in Sussex County. The Proposed Regulation would exclude regulating embankments that are used to contain wastewater treatment lagoons until it obtains more detailed information to determine the appropriate hazard classification. The Recommended regulations require supervision of regulated dams by a professional engineer licensed in Delaware, as required by Section 4209 of the Act.

The form of the proposed Department regulation is by requiring dam owners to file an application for a permit to construct a new dam in Section 4.1, any repair, alteration or removal of an existing dam in Section 4.2. The Proposed Regulations exclude a dam not over 6 feet in height regardless of storage capacity, or a dam with a storage capacity of 15 acre feet or less regardless of height or any low-hazard potential dam constructed prior to June 30, 2004. The Proposed Regulations exclude dams owned by the federal government and any privately owned dam unless an owner seeks to be subject to the Act's regulation by agreement. All routine maintenance and operation that do not affect the dam's safety do not require the Department's prior approval, but the Department would still regulate the operation and maintenance through reviewing and approving a dam's Operations and Maintenance Plan.

The Proposed Regulations in Sections 4.1.5 and 4.2.4 contain procedures for a public notice and the opportunity for public comment, including at a public hearing, before any final action on an application. The Act requires a 21 calendar day notice period for an application. The Act and the Recommended Regulation provide a procedure in which the Department must decide within 30 days of receipt of an application whether it is defective. .

The Proposed Regulations in Section 4.5 require all dams to be operated pursuant to a Department approved operations and maintenance plan. Section 4.6 sets forth the proposed monitoring and inspection of dams.

Section 5.0 provides for the classification of dams into high hazard potential, significant hazard potential or low hazard potential. The classification is based upon factors generally accepted in the field of dam design.

Section 6.0 provides procedures for the applications required under the Act and the Proposed Regulations. Section 7.0 provides for the assessment of fees as authorized to administer the Act, which limits the fee to no more than \$500 for an application. Section 8.0 provides for the engineering and design of dams while Section 9.0 governs the requirements for construction. Section 10.0 regulates the operations, maintenance and inspection of dams. Section 11 provides for enforcement procedures for any alleged violations.

I recommend a finding that the Recommended Regulation is consistent with the Act. The Recommended Regulation will allow the Department to exercise its regulatory authority over the dams that are subject to the Act in a reasonable manner to ensure that the dams will be built, operated and maintained to protect the property and lives that may be at risk if any regulated dam were to fail. I recommend a finding that the recommended record contains well-documented technical support to approve the Recommended Regulation as a final regulation. I recommend a finding that there is a sound and reasonable basis for the exercise of the Department's state authority to adopt the Recommended Regulation as the final regulation so that they may be published in the Delaware Register of Regulations and go into effect 10 days after their publication.

#### **IV. RECOMMENDED CONCLUSIONS**

For the above-stated reasons, I recommend the following conclusions:

4.) The Department has jurisdiction under its statutory authority to issue an Order adopting this final regulation;

5.) The Department provided adequate public notice of the proposed regulation and provided the public with an adequate opportunity to comment on the proposed regulations, including at a public hearing;

6.) The Department held a public hearing on the proposed regulations in order to consider public comments before making any final decision, and has considered all relevant and timely public comments it received;

4) The Department's hearing officer's report, including its recommended record and the recommended regulation set forth in Appendix A, are adopted to provide additional reasons and finding for this Order;

5.) The Recommended Regulation does not reflect any substantive changes from the Proposed Regulation published in the April 1, 2009, *Delaware Register of Regulations*;

6..) The Recommended Regulation should be adopted as a final regulation because it is reasonable related to administering the Act and is well supported by documents in the record; and that

7.) The Department shall submit this Order approving the final regulation to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law requires and the Department determines is appropriate.

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Robert P. Haynes, Esquire  
Senior Hearing Officer