

**Title 25. Environmental Protection  
Part I. Department of Environmental Protection  
Chapter 105. Dam Safety and Waterway Management**

**COMMENT-RESPONSE DOCUMENT**

	<b><u>PAGE</u></b>
<b>Pennsylvania State Association of Township Supervisors</b>	<b>2</b>
<b>Pennsylvania American Water</b>	<b>3</b>
<b>EME Homer City Generation, L.P.</b>	<b>4</b>
<b>Pennsylvania Department of Transportation</b>	<b>5</b>
<b>American Rivers</b>	<b>7</b>
<b>IRRC</b>	<b>10</b>

**List of Commentators**

This is a list of corporations, organizations and interested individuals from whom the Environmental Quality Board received comments regarding the above referenced regulation:

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2	Anthony M. Nokovich, P.E. Pennsylvania American Water 852 Wesley Drive Mechanicsburg, PA 17055
3	Jeffrey S. Bard, Environmental Services Manager EME Homer City Generation, L.P. 1750 Power Plant Road Homer City, PA 15748
4	Brian G. Thompson, P.E., Director Bureau of Design Pennsylvania Department of Transportation 400 North Street, 7 <sup>th</sup> Floor Harrisburg, PA 17120-0094
5	Stephanie Lindloff, Senior Director, River Restoration Program American Rivers Mid-Atlantic Field Office 1 Danker Avenue Albany, NY 12206-1213
6	Independent Regulatory Review Commission 333 Market Street, 14 <sup>th</sup> Floor Harrisburg, PA 17101

**COMMENTS AND RESPONSES**

**Pennsylvania State Association of Township Supervisors**

**COMMENT:**

- 1. 105.134. Emergency action plan.** Under the proposed changes, a permittee or owner of a dam classified in section 105.91 shall develop an EAP to be followed in the event of a dam hazard emergency. This plan must be submitted to the county emergency management coordinators for concurrence with the plan, and to the Department of Environmental Protection and PEMA for approval. Nowhere are the local emergency management coordinators notified or asked whether the EAP meets with their local plans.

Recommendation: Since PEMA is proposing changes to Title 35 and placing additional responsibility on municipalities and their local emergency management coordinators, we feel that it is significant that the municipality where a potential hazard dam is located be notified and able to respond to the EAP. Should there be a failure at one of these dams it most likely would be the municipality and the local emergency management coordinator that first responds.

**RESPONSE:**

In 2008, DEP and PEMA organized a committee consisting of county Emergency Management Agencies (EMA), the National Weather Service, the American Red Cross, dam owners, their engineers, the PA Fish and Boat Commission, and numerous other state agencies to discuss and revise the previously utilized EAP Guidelines. The draft regulations require the EAP to be prepared in accordance with the most recent EAP guidelines. During these meetings, a process was created for the development of the EAP. As part of this process, the dam owner or their engineer is required to meet with the county emergency management coordinator in order to accurately describe the roles of emergency

responders and the names of the emergency response agencies to include in the EAP, prior to submitting the EAP to the Department and PEMA for review. The committee determined that it was a more streamlined process and more appropriate for the county EMAs to sign off on the EAP rather than the local emergency management officials since dam emergencies typically involve more than one municipality and the county EMAs are familiar with all of the local emergency response agencies that should be listed in the EAP. The Department agrees that the local emergency management coordinator will be involved in a dam emergency and that is why once the EAP has been approved, the draft regulation requires the permittee or owner to provide a copy of the approved EAP to all municipal emergency management agencies and the emergency response agencies listed in the EAP.

**COMMENT:**

2. **105.135. Dam hazard emergencies.** Requires the permittee or owner of the dam to immediately notify “appropriate emergency management officials” of the existence of the hazard and request the “authorities” to initiate appropriate action.

Recommendation: We would ask who the “appropriate emergency management officials” are that need to be notified, and which “authorities” are to take action? Again, we would contend that it will be the municipality or county that will need to be notified and will be the immediate first responder.

**RESPONSE:**

Every EAP is developed specifically for each dam. The appropriate emergency management officials and authorities are outlined in the EAP. The permittee or owner is only required to contact the appropriate county PSAP – 911 center. The PSAP - 911 center will contact the county EMA and other emergency response agencies that have responsibilities outlined in the EAP.

**Pennsylvania American Water**

**COMMENT:**

1. **105.97. Stability of Structures.** The proposed regulation provides minimum factors of safety for various analyses such as 1.7 for maximum pool for a gravity dam. This factor of safety is significantly greater than 1.1 that is currently required by the Corps of Engineers and we request that Department of Environmental Protection (DEP) reconsider the maximum factors for safety presented in the proposed regulation. Furthermore, we are concerned that listing the required minimum factor of safety in the regulations does not allow for future changes in the industry:

Recommendation: We would recommend that you remove the required factors of safety and publish them in a separate document, such as design guidance. This will give the department the ability to rapidly respond to advancements in the field of dam engineering rather than needing to rewrite the regulations.

**RESPONSE:**

The Department feels that the factors of safety should be in the regulations so they are binding. Currently, the factor of safety required for a gravity dam at maximum pool is 1.7 per the Corps of Engineers (refer to Attachment A). In response to flexibility, the Department has also revised the draft regulations to include the following:

(h) The Department may, in its discretion, consider a revised factor of safety for a class of dams or reservoirs when it can be demonstrated that the factor of safety provides for the integrity of the dams or reservoirs and adequately protects life and property.

**COMMENT:**

2. **105.134. EAP.** Section 105.134 requires notices be posted in the city, borough, and township buildings in the affected municipalities. The Company understands the intent of the regulation, but neither DEP nor a dam owner has the authority to require a location to keep a posting displayed. We expend significant time and effort to comply with this requirement and regularly find that our notices have been removed after we leave.

Recommendation: Pennsylvania American Water request that DEP recommend legislation that would require city, borough, and township buildings to post these notices and ensure they remain posted or eliminate this requirement all together.

**RESPONSE:**

The Department does not feel that legislation is required for posting of the notice and does not feel that eliminating the requirement is in the public's best interest. The Department believes it should be the responsibility of the permittee or owner of the dam to post notices rather than the responsibility of the local governments that are potentially impacted by the failure of the dam. It is because the Department feels it is important that the notices remain posted that the draft regulations require the permittee or owner to certify in the annual inspection report that the notices remain posted or were reposted. The revised annual inspection report form developed by Dam Safety requires the dam owner or their engineer to visit the locations where the notice is posted. If the notice is not displayed, the dam owner or their engineer must replace the notice as required and document this in the annual inspection report. Also, a statement has been included on the notice explaining that it is required to be posted per 105.134 of the Department's regulations (refer to Attachment B). This statement was added in an effort to ensure the notices remain posted. The Department understands Pennsylvania American Water has quite a task posting several notices for its 27 high hazard dams and providing an annual acknowledgement that the notice is still posted in the locations identified in Section V.B. of the approved EAPs.

**EME Homer City Generation, L.P.**

**COMMENT:**

- 1. 105.13(b). Proof of financial responsibility.** The EME Homer City Electric Generating Station operates the Two Lick Creek Dam and Reservoir in Indiana County. The Dam and Reservoir were originally constructed in 1967 by the Pennsylvania Electric Company (PENELEC) and New York State Electric & Gas Corporation (NYSEG) pursuant to a Limited Power Permit issued by the Department under the Limited Power Act. The dam and reservoir were constructed to provide the original owners of the Homer City Electric Generating Station (PENELEC and NYSEG) with water for operation of the plant. Ownership and operation of the dam and reservoir has since been transferred to General Public Utilities (GPU) and then to the current owner, EME Homer City Generation, LP.

Water provided to Two Lick Creek from the dam and reservoir is also withdrawn by the Western Pennsylvania Water Company Indiana District (WPWC) for purposes of supplying water to the public in all or portions of communities of Indiana Borough and White Township. With the deregulation of electricity in Pennsylvania, the EME Homer City Generating Station is considered an Independent Power Producer (IPP) and is not a public utility. Unlike other Category 1 private dams, the Two Lick Dam and Reservoir is unique in that it provides water to the public (through the WPWC) and to a former utility generating station.

Chapter 105.13b(1)(i) allows for Proof of Financial Responsibility to be provided by a certificate of public convenience from the Public Utility Commission if the owner of the facility is subject to regulation under 66 Pa.C.S. (relating to Public Utility Code). It is unlikely that the deregulation of electricity was contemplated when this section was incorporated into the regulations, however, from a practical standpoint the operation of the Two Lick Creek Dam falls under the intent of this section in that the dam is operated for public convenience in providing electricity and water to the public. The requirement to provide Proof of Financial Responsibility for a dam of this size and type presents an undo hardship on companies given the unwillingness of many financial institutions to provide financial assurance mechanisms as a result of the tightening financial markets in the current economy.

Recommendation: We respectfully ask that the proposed regulation be modified to allow companies that operate dams for public convenience, or that supply water to the public, to provide evidence of such operation as proof of financial responsibility. We suggest Chapter 105.13b(1)(i) be amended to read as follows:

- (1) As proof of responsibility or security, the Department may require one or more of the following:

(i) A certificate of public convenience from the Public Utility Commission if the owner of the proposed facility is subject to regulation under 66 Pa. C.S. (relating to Public Utility Code), or evidence that the proposed facility is operated in whole or in part for public convenience, or to supply water to the public.

**RESPONSE:**

This section is statutory therefore the requested change cannot be made. Owners of a facility subject to the Public Utility Law may demonstrate proof of financial responsibility by having a Certificate of Public Convenience from the PUC because if you have a Certificate of Public Convenience, the owner cannot walk away- they must provide a service. The owner is required to have an abandonment plan which would include the dam. This same assurance is not provided by owners who do not hold a Certificate of Public Convenience from the PUC; therefore, proof of financial responsibility in the form of a bond or other legal device is necessary so the Department can intervene in the event that the owner fails to comply with Department orders to take actions to prevent the potential failure of the dam and resultant loss of life.

**Pennsylvania Department of Transportation - Bureau of Design**

**COMMENTS:**

1. **105.1. Definitions.** A definition of “practicable alternative” is included in this section. PennDOT requests that this definition be revised as follows so that satisfying the basic purpose of the project or the project need is more directly part of the definition and not just part of the definition which speaks to areas not presently owned by the applicant:

Recommended language: “An alternative is practicable if it **meets the basic purpose of the project and** is available and capable of being carried out after taking into consideration construction cost, existing technology and logistics.”

2. **Section 105.14. Review of applications.** Subsection (b)(1) was revised to add “potential threats to the environment” as one of the factors considered in making a determination of impact. The effect to the environment is presently addressed in subsection (b)(4) and speaks in terms of “significant environmental factors”. Adding “threats to the environment” in subsection (b)(1) could be interpreted that the potential threat to the environment does not have to be significant.

Recommendation: PennDOT requests that Section 105.14(b)(1) not be revised to include potential threats to the environment.

The last sentence, states, “In reviewing permit applications existing and designated uses will be maintained and protected.”

Recommendation: Please clarify that the existing and designated uses are as defined in Chapter 93.

3. **Section 105.15. Environmental Assessment.** PennDOT requests that this section be revised to clarify that a Section 401 Water Quality Certification can be issued separate from the Chapter 105 permit. Specifically, that detailed information required by Chapter 105.13 (d)(1)(v), (vi), (vii), (ix), and (f) and the detailed hydraulic studies are not required to issue the Section 401 Water Quality Certification. Instead, the Certification could be conditioned upon obtaining a Chapter 105 permit prior to construction.

Recommendation: PennDOT requests this change to clarify the use of the integrated NEPA/404 permit process.

4. **Section 105.42. Terms and conditions of Department permits and approvals.** This section has been revised to make the permittee **or owner** responsible (1) for informing the contractor of the terms and conditions of the permit and (2) completing the acknowledgement form. See revised 105.42 (a) and (b). This would place responsibility on PennDOT for permits obtained by developers for Highway Occupancy Permits (HOP) matters that require roadway improvements within PennDOT’s right-of-way. PennDOT (acting on behalf of the taxpayers) does not want any responsibility for the construction of roadway improvements that are required as a result of private development.

If “or owner” remains in the proposed regulations, PennDOT requests that DEP stipulate “Primary owner,” i.e. if PennDOT owned 0.1 acre of the ROW adjacent to the developers 50 acres and the developer was putting drainage through PennDOT’s ROW to connect to PennDOT’s road, then the developer would be the “Primary owner”.

Recommendation: PennDOT requests that the proposed language be revised so that it is clear that PennDOT will not be responsible informing contractors and completing acknowledgement forms related to HOPs.

5. **Section 105.46. Implementation of erosion and sedimentation control plans.** This section has been revised to make the permittee or owner responsible for following the E&S plan during construction. Again, this would place additional responsibility on PennDOT for permit obtained by developers for HOP matters that require roadway improvements within PennDOT’s right-of-way. PennDOT (acting on behalf of the taxpayers) does not want any responsibility for the construction of roadway improvements that are required as a result of private development.

If “or owner” remains in the proposed regulations, PennDOT requests that DEP stipulate “Primary owner,” i.e. if PennDOT owned 0.1 acre of the ROW adjacent to the developers 50 acres and the developer was putting drainage through PennDOT’s ROW to connect to PennDOT’s road, then the developer (land owner) is the Primary Owner and held responsible.

Recommendation: PennDOT requests that the proposed language be revised so that it is clear that PennDOT will not be responsible if permittees for HOPs do not follow the E&S Plan.

6. **Section 105.51.** Change “above and below” to “upstream and downstream.”
7. **Section 105.61. Procedure for investigations.** This section has been revised to allow DEP to require investigations if DEP has reasonable cause to suspect the existence of a condition adversely affecting the environment. Previously, this burden was on DEP.

Recommendation: PennDOT requests clarification on whether this revision can cause PennDOT to conduct studies if flooding has increased in the vicinity of one of PennDOT’s bridges.

8. The current Chapter 105 process does not provide for co-permittees after the permit is issued.

Recommendation: PennDOT requests that one of the reserved sections provide language that permits the contractors to be co-permittees during construction – this would be analogous to the NPDES permit program. By adding the contractor as a co-permittee, the contractor can be held more directly accountable by both DEP and PennDOT in the event that the contractor fails to follow the permit conditions.

**RESPONSE:**

Comments 1-8 involve sections of Chapter 105 that include both dams and water obstructions and encroachments. The language referenced in these comments where the Department had proposed changes will be reverted back to the existing language and the comments will be addressed in the Water Obstructions and Encroachments 105 regulation package currently under review by the Department.

**COMMENT:**

9. **105.96. Outlet works.** Define how to calculate “highest mean monthly inflow.”

**RESPONSE:**

The Department agrees with PennDOT’s recommendation and has revised the draft regulations as follows:  
§ 105.96. Outlet works.

(a) Dams [shall] must include a device to [permit] allow the complete draining of the reservoir [within a reasonable period of time as determined by the Department] unless the Department determines that an outlet works is not

feasible for a specific dam. At minimum, the device must be sized to pass a minimum of 70% of the highest mean monthly inflow at the site plus the capacity to drain the top 2 feet of reservoir storage below normal pool in 24 hours. The highest mean monthly flow shall be determined from statistics of an appropriate stream gage, as approved by the Department, transferred to the dam site by the ratio of the drainage areas. The Department may require an increased size to provide for the integrity of the dam and to protect life and property with an adequate margin of safety.

## **American Rivers**

### **COMMENT:**

1. **105.13(b). Proof of financial responsibility.** American Rivers strongly supports the proposed requirement to extend the proof of financial responsibility to category 1 and 2 dams covering the full life cycle of the projects, as recommended in the 2008 Dam Safety Audit. With thousands of dams on the landscape that no longer serve a purpose, abandonment of outdated infrastructure is a serious, hazardous and costly problem. The dangers of abandoned or poorly maintained Category 1 and 2 dams is clear and we believe that financial responsibility requirements are a fundamental measure to address this issue. We believe this requirement must extend to both private and public dam owners.

### **RESPONSE:**

The Department appreciates American Rivers' support for the proposed revisions to this section. The proof of financial responsibility requirement does extend to private and public dam owners. The statute states that ownership or management of the facility by an agency of the Federal, interstate, State, county or municipal government meets the requirement to provide proof of financial responsibility.

### **COMMENT:**

2. **105.25. Transfer of permits.** We note that the Department only requests notification when there is a change in ownership, but not in the permittee of the dam. As these are not always the same entity.

Recommendation: We recommend that the Department requires submittal of an operations and maintenance agreement between relevant dam owner and permittee to clarify the responsibility of maintenance tasks. It is our experience that conditions of dual or split ownership often result in neglect of dam safety responsibilities due to lack of clarification of duties.

### **RESPONSE:**

Section 105.25(a)(2) and (3) address the transfer of a dam permit when the owner and permittee are not the same. Section 105.51 requires the permittee or owner to operate and maintain the dam in a safe condition. Also, Section 105.131 requires the owner and permittee to follow the operation and maintenance plan. The Department will request an updated operation and maintenance plan, as well as an updated EAP, when a permit is being transferred, there is a new owner of a dam, or we believe that dual ownership is resulting in neglect.

### **COMMENT:**

3. **105.43. Time limits.** We oppose the elimination of a completion date from dam permits or other Department approvals for construction or modification. Most dam owners likely to complete construction or modifications in a timely fashion once work has commenced. However, in some cases, progress may notably lag and at those times it is important that the Department maintains the authority to require that the dam owner provide a schedule for completion in order to avoid prolonged disruptive site conditions, for both public safety and environmental reasons.

### **RESPONSE:**

The Department realizes it is extremely important to establish time limits due to the reasons mentioned in the comment and changes in design techniques and industry standards. Time limits are established by the Department as outlined in Section 105.43(c).

**COMMENT:**

4. **105.47. Removal of dams and removal or abandonment of water obstructions and encroachments.** American Rivers strongly supports the proposed revisions to this section. The addition of subsection c formalizes the Commonwealth's historical commitment to protecting public safety and the environment through removal of abandoned dams.

**RESPONSE:**

The Department appreciates American Rivers' support for the proposed revisions to this section.

**COMMENT:**

5. **105.61. Procedures for investigations.** American Rivers strongly supports the addition of "or the environment" to this section.

**RESPONSE:**

Upon review of the comments, this addition involves a section of Chapter 105 that include both dams and water obstructions and encroachments. This section will be reverted back to the existing language and the comments will be addressed in the Water Obstructions and Encroachments 105 regulation package currently under review by the Department.

**COMMENT:**

6. **105.91. Classification of dams and reservoirs.** We support the creation of a fourth Hazard Potential category. The previous C-2 high and C-2 non-high distinction was not clear in practice. We believe some dams, the failure of which have the potential to result in loss of life, may have been overlooked in the previous definition.

**Recommendation:** American Rivers *strongly* recommends that the Board incorporate environmental losses (i.e., natural resource damages) in the Department's hazard potential classification system. This addition would be consistent with the Federal Emergency Management Agency's Model State Dam Safety Law, U.S. Army Corps of Engineers' Dam Safety Assurance Program, Interagency Committee on Dam Safety recommendations, and dam safety regulations of other states in the region. Environmental losses resulting from dam failure are distinct from economic loss, and have occurred due to release of known contaminants or hazardous/toxic materials, destruction of exemplary or critical habitats, and/or extensive species mortality. The Department is clearly empowered to consider the environmental impacts of dam construction, operation and alteration, it is logical to extend that same consideration to the hazard potential classification system.

**RESPONSE:**

The Department does not feel that incorporating environmental losses into the hazard classification at this time is warranted. The Department believes there are other statutes in place that can be utilized to cover environmental losses resulting from a dam failure such as the Clean Streams Law. The Department, in practice, considers environmental losses with the economic losses associated with clean up and restoration.

Under Section 105.3. Scope, the Department regulates dams for the storage of fluids or semifluids other than water, the escape of which may result in air, water, or land pollution. The Department requires Dam Permits for basins which contain ash, sludge, industrial wastes, etc. which would not otherwise require a permit based on the size of the dam and impoundment. While not a direct correlation with hazard potential, these dams do undergo a rigorous review by the Department and the requirement for a permit is based on environmental losses.

**COMMENT:**

7. **105.97. Stability of structures.** American Rivers recommends that considerations for land use and extractive industries near dams be added. In light of ongoing long-wall mining, as well as significant increases in re-mining and hydraulic fracturing activities in the Commonwealth, we encourage the formalization of coordination and



communication between relevant authorities to ensure that a consistent and appropriate level of public and environmental safety be retained.

**RESPONSE:**

We agree with your suggestions and will begin internal discussions regarding communication and coordination with the mining and oil and gas programs.

**COMMENT:**

**8. 105.107. Final Inspection.** American Rivers supports the proposed change. Given the statistical correlation of dam failures with initial impoundment filling, the post-construction inspection is logical. In the absence of the proposed change there may be a lag time of 1 to 5 years, depending upon the hazard potential classification of the dam, before a Departmental representative visits and develops a familiarity with the site. As the Dam Safety authority, it is important for the Department, and not the permittee's engineer, to make a final inspection of the dam.

**RESPONSE:**

The Department appreciates American Rivers' support for the proposed revisions to this section.

**COMMENT:**

**9. 105.131(b). Operation, maintenance and monitoring.** We support the addition of a clarifying statement in this section that permittees/owners must also submit environmental assessment to the Department.

**RESPONSE:**

The Department appreciates American Rivers' support for the addition of the clarifying statement to this section.

**COMMENT:**

**10. 105.133. Directed repairs.** American Rivers strongly supports the addition of "and the environment" in this section. The Department must have the authority to direct actions as necessary to protect the environment.

**RESPONSE:**

The Department appreciates American Rivers' support for the addition of "or the environment" to this section.

**COMMENT:**

**11. 105.134. Emergency action plan.** We applaud the changes to this section. The revisions address many issues raised in the 2008 Dam Safety Audit, and will improve the process for developing and maintaining critical public safety procedures. American Rivers is especially supportive of the new requirement for coordination with county emergency managers. We believe the delivery and posting of EAPs is fundamentally important to increasing community awareness and preparedness of potential risks. We support the inclusion of an unambiguous authority of the Department to require updates to EAPs upon changes to a dam's hazard potential or known development in an inundation area. It is our understanding that the Department's "most recent EAP guidelines" include provision of a clearly delineated map of the dam's inundation area and affected lands parcels, and that this map will be provided to municipal emergency management officials. However, this alone will not address the long-standing problem of "hazard creep" (i.e., unchecked development downstream of dams necessitating upgrades of the hazard potential classification).

**Recommendation:** Inundation maps must be referenced during local zoning and planning decisions. Too many local land use decisions are made without considering inundation areas. America Rivers believes there are legislative approaches to addressing this problem, such as a law recently established in Virginia, and we welcome the opportunity to discuss such approaches with the Department.

**RESPONSE:**

We would welcome any discussions pertaining to this topic. Section 105.134(g) requires the EAP to be updated if changes occur in the downstream inundation area. Also, Section IX. in the January 2009 EAP Guidelines require the owner or the owner's engineer to conduct an on-site review of the flood (inundation) area for any increase in downstream development and revise the Inundation Map. The owner will coordinate with the county EMA if population increase or development within the inundation area could affect the emergency response requirements. If so, a new or revised plan must be developed.

**Independent Regulatory Review Commission (IRRC)**

**COMMENT:**

**1. Section 105.1. Definitions.**

*Person*

Subsection (i) contains provisions not included in the definition of "person" in the Dam Safety and Encroachments Act (Act). See 32 P.S. § 693.1 et. seq. For example, the terms "firm" and "estate" are not included in the statutory definition, and neither is the phrase "or other legal entity which is recognized by law as the subject of rights and duties." Existing language contained in the regulation, such as the term "public utility" and "political subdivision of this Commonwealth" also are not included in the Act.

Recommendation: The EQB should use the statutory definition in the regulation or explain its statutory authority for adding these terms and phrases to the proposed definition.

**RESPONSE:**

This definition has been revised according to the statutory definition.

**COMMENT:**

**2. Section 105.4. Delegations to local agencies.**

*Subsection (b)*

The existing language of the regulation prohibits delegating the authority to issue permits. The proposed regulation changes this provision to allow such delegations, but does not provide a reason for this change. The Preamble to the final-form regulation should explain the basis for this revision.

**RESPONSE:**

The Department has decided to leave the regulation as presently codified.

*Subsection (e)*

The proposed regulation removes a statutory citation from this subsection. Like Subsection (b), the Preamble also should provide an explanation for this amendment.

**RESPONSE:**

The statutory citation will remain in Subsection (e) as presently codified.

**COMMENT:**

**3. Section 105.13b. Proof of financial responsibility.**

This section allows permit approval for Hazard Potential Category 1 or 2 dams only if they submit proof of financial responsibility or security assuring proper construction, repair, etc. of the facility. In the Preamble, the EQB states there are approximately 2,333 owners of 3,256 dams that are affected by these regulations. The EQB also provides a breakdown of the dams by ownership and category. The EQB explains that the cost is "dam-specific based on the size and type...of dam." The EQB also states that "if this amendment is not approved, the cost to the Commonwealth could be significant." While we recognize it is difficult to predict how dam owners will provide financial assurance, we request further information on the potential economic and fiscal impact of

the regulation on Category 1 or 2 county owned, municipally owned, privately owned and state owned dams by category.

Subsection (a)(1) includes as an example of proof of financial responsibility: "[a] certificate of public convenience from the Public Utility Commission if the owner of the proposed facility is subject to regulation under 66 Pa.C.S. (relating to the Public Utility Code)." A commentator is concerned that the proposed regulation did not contemplate deregulation of the utility industry, and as a result did not envision the undue hardship this provision could cause, given that many financial institutions are unwilling to provide these financial assurances in today's economy. Does the EQB know the number of deregulated companies that would be impacted by this proposed rulemaking? What would be the fiscal impact on these types of utilities?

**RESPONSE:**

Ownership of the dam by a governmental agency meets the requirement to provide proof of financial responsibility in accordance with the draft regulations and the statute therefore there would be no fiscal impact of the draft regulation on Category 1 or 2 county owned, municipally owned, and state owned dams. Facilities subject to the Public Utility Law regulated by the PUC may demonstrate proof of financial responsibility by having a Certificate of Public Convenience from the PUC in accordance with the draft regulations and the statute therefore there would be no fiscal impact on these utilities. Currently, there are 338 permitted high hazard dams that are privately owned and have no proof of financial responsibility including 262 category 1 dams and 76 category 2 dams. These dams have no proof of financial responsibility for one of the following reasons: the permit for these dams was issued prior to the enactment of the existing regulations, or the dam's hazard classification was updated to high hazard sometime after the permit was issued, or the dam was one of a subset of high hazard dams not required by the existing regulations to have proof of financial responsibility.

Proof of financial responsibility is a bond or other legal device payable to the Commonwealth in an amount sufficient for the Commonwealth to cover costs of entry, repair or removal of the dam in the event the owner fails to comply with Department orders to take actions to prevent the potential failure of a dam and resultant loss of life. The means to provide this proof of financial responsibility include a Surety Bond or a Collateral Bond secured by a negotiable bond, cash, Certified Check, Cashiers Check, Treasures Check, Irrevocable Letters of Credit or a Certificate of Deposit. The amount of the bond or other legal device could range from \$25,000 to \$200,000 per dam. If the owner provides a Surety Bond or Irrevocable Letter of Credit the actual cost would range from \$250 to \$4,000 annually. Because most of the privately owned dams are generally on the smaller side, the amount of the bond and annual maintenance cost will be toward the lower end of the range. The Department estimates that the annual cost for the 338 privately owned dams would be approximately \$450,000 for the 262 Category 1 dams and approximately \$100,000 for the 76 category 2 dams.

Based on information that the Department has available, there are possibly two deregulated companies that would be impacted by this proposed rulemaking with an estimated fiscal impact of \$4,000 annually for each.

**COMMENT:**

**4. Section 105.14. Review of applications.**

Paragraph (b)(1) states a broad declaration that the Department of Environmental Protection (Department) will consider potential threats to the environment created by a dam in its determination of impact. However, Paragraph (b)(4) specifically identifies several factors that will be considered and includes, in existing language, "other significant environmental factors." A commentator is concerned that Subsection (b)(1) could be interpreted to mean that threats do not have to be significant to determine impact. We agree and question the need to amend Paragraph (b)(1) in addition to the detail provided in Paragraph (b)(4). We recommend deleting the amendment to Paragraph (b)(1). Alternatively, if it is retained, the EQB should explain why the amendment is needed and consistent with Paragraph (b)(4).

**RESPONSE:**

The Department has deleted the amendment to (b)(1).

Also, a commentator suggests that the "existing and designated uses" mentioned in the last sentence of Subsection (b)(4) are those defined in Chapter 93. The EQB should explain what uses will be considered and provide a cross-reference in the regulation to the existing and designated uses the Department will consider.

**RESPONSE:**

Upon review of the comments, this addition involves a section of Chapter 105 that include both dams and water obstructions and encroachments. This section will be reverted back to the existing language and the comments will be addressed in the Water Obstructions and Encroachments 105 regulation package currently under review by the Department.

**COMMENT:**

**5. Section 105.42. Terms and conditions of Department permits and approvals.**

This section has been revised to make the permittee or the owner responsible for both informing the contractor and for completing the acknowledgement form regarding the terms and conditions of the permit. The PA Department of Transportation (PennDOT) is concerned that this provision would result in PennDOT being responsible for permits obtained by developers for Highway Occupancy Permits that require roadway improvements within PennDOT's right-of-way. Could PennDOT be responsible for the construction of roadway improvements that are required as a result of private development? Similar concerns apply to Section 105.46. We will review the EQB's response to this issue in our consideration of whether the final regulation is in the public interest.

**RESPONSE:**

Upon review of the comments, this addition involves a section of Chapter 105 that include both dams and water obstructions and encroachments. This section will be reverted back to the existing language and the comments will be addressed in the Water Obstructions and Encroachments 105 regulation package currently under review by the Department.

**COMMENT:**

**6. Section 105.45. Inspections by the Department.**

Who does the EQB consider an "authorized agent" of the Department? The final-form regulation should clarify this issue.

**RESPONSE:**

The Department has deleted "authorized agent."

**COMMENT:**

**7. Section 105.81. Permit applications for construction and modification of dams and reservoirs.**

In Subsection (a)(3), what does the EQB consider "sufficient detail" contained in plan specifications and design reports to evaluate the safety and suitability of the proposed dam, reservoir and appurtenant works? This language should either be clarified in the final-form regulation, or deleted.

**RESPONSE:**

This section has been revised as, "Construction plans, specifications and design reports to evaluate the safety, adequacy and suitability of the proposed dam, reservoir and appurtenant works in order to determine compliance with this chapter."

**COMMENT:**

**8. Section 105.91. Classification of dams and reservoirs.**

This section classifies dams and reservoirs based on size and hazard potential. Hazard potential is based on the amount of the population at risk and the degree of economic loss. A commentator recommends that the EQB

incorporate environmental losses into the determination of hazard potential. Has the Board considered including these losses as a factor?

**RESPONSE:**

The Department does not feel that incorporating environmental losses into the hazard classification at this time is warranted. The Department believes there are other statutes in place that can be utilized to cover environmental losses resulting from a dam failure such as the Clean Streams Law. The Department, in practice, considers environmental losses with the economic losses associated with clean up and restoration.

Under Section 105.3. Scope, the Department regulates dams for the storage of fluids or semifluids other than water, the escape of which may result in air, water, or land pollution. The Department requires Dam Permits for basins which contain ash, sludge, industrial wastes, etc. which would not otherwise require a permit based on the size of the dam and impoundment. While not a direct correlation with hazard potential, these dams do undergo a rigorous review by the Department and the requirement for a permit is based on environmental losses.

**COMMENT:**

**9. Section 105.96. Outlet works.**

Subsection (a) indicates that draining devices must be sized to pass a minimum of 70% of the "highest mean monthly inflow." How is this type of inflow calculated? For example, is it based on storm potential, such as a 2-year/24-hour storm? The final-form regulation should clarify this issue.

**RESPONSE:**

The Department agrees with this recommendation and has revised the draft regulations as follows:

**§ 105.96. Outlet works.**

(a) Dams [shall] **must** include a device to [permit] **allow** the **complete** draining of the reservoir [within a reasonable period of time as determined by the Department] unless the Department determines that an outlet works is not feasible for a specific dam. **At minimum, the device must be sized to pass a minimum of 70% of the highest mean monthly inflow at the site plus the capacity to drain the top 2 feet of reservoir storage below normal pool in 24 hours. The highest mean monthly flow shall be determined from statistics of an appropriate stream gage, as approved by the Department, transferred to the dam site by the ratio of the drainage areas. The Department may require an increased size to provide for the integrity of the dam and to protect life and property with an adequate margin of safety.**

**COMMENT:**

**10. Section 105.97. Stability of structures.**

This section requires a safety factor for gravity dams of 1.7 for maximum pool in paragraph (d)(2). A commentator notes that this factor is greater than that imposed by national standards. How did the EQB determine that 1.7 is an appropriate safety factor?

**RESPONSE:**

Currently, the factor of safety required for a gravity dam at maximum pool is 1.7 per the Corps of Engineers (refer to Attachment A).

The Department has also revised the draft regulations to include the following:

(h) The Department may, in its discretion, consider a revised factor of safety for a class of dams or reservoirs when it can be demonstrated that the factor of safety provides for the integrity of the dams or reservoirs and adequately protects life and property.

**COMMENT:**

**11. Section 105.102. Personnel and supervision.**

Subsection (a) refers to a "professional engineer or a Department-approved representative/ (Emphasis added.) When would the Department use a representative in lieu of a professional engineer and what qualifications would be required for approval as a representative?

**RESPONSE:**

The Department has revised the draft regulations, to eliminate any confusion, as follows:

(b) Work must be conducted under the oversight and supervision of a professional engineer. The professional engineer or a representative of the professional engineer shall be on the work site during significant construction activities until the completion of the dam.

**COMMENT:**

**12. Section 105.134. EAP.**

This section requires Hazard Potential Category 1, 2 and 3 dams to develop an Emergency Action Plan (EAP) to follow in the event of a dam hazard emergency. We raise three issues. First, this section is not clear regarding the role of local governments. Subsection 105.134(a) replaces "local emergency management officials" with "the Pennsylvania Emergency Management Agency (PEMA) for approval of a plan. Paragraph 105.134(a)(2) requires the signature of "county emergency management coordinators." However, it is only after approval of the plan that a copy is given to the "municipal emergency management agencies" under Subsection (b). We request an explanation of why this section is being amended so that local governments are no longer included in the review and approval of the EAP.

**RESPONSE:**

In 2008, DEP and PEMA organized a committee consisting of county Emergency Management Agencies (EMA), the National Weather Service, the American Red Cross, dam owners, their engineers, the PA Fish and Boat Commission, and numerous other state agencies to discuss and revise the previously utilized EAP Guidelines. The draft regulations require the EAP to be prepared in accordance with the most recent EAP guidelines. During these meetings, a process was created for the development of the EAP. As part of this process, the dam owner or their engineer is required to meet with the county emergency management coordinator in order to accurately describe the roles of emergency responders and the names of the emergency response agencies to include in the EAP, prior to submitting the EAP to the Department and PEMA for review. The committee determined that it was a more streamlined process and more appropriate for the county EMAs to sign off on the EAP rather than the local emergency management officials since dam emergencies typically involve more than one municipality and the county EMAs are familiar with all of the local emergency response agencies that should be listed in the EAP. Once the EAP has been approved, the draft regulation requires the permittee or owner to provide a copy of the approved EAP to all municipal emergency management agencies and the emergency response agencies listed in the EAP.

Second, Paragraph (a)(4) states: "The EAP must be prepared in accordance with the most recent EAP guidelines developed by the Department and PEMA." How will the applicant know what are the most recent guidelines? Where can these be found? The same concern applies to Subsection (f).

**RESPONSE:**

A copy of the most recent EAP Guidelines is mailed to all dam owners requiring an EAP and can be found on the DEP's website. Every consulting engineer in Dam Safety's database receives a copy of the most recent Guidelines. The Guidelines are also mailed to every county EMA office and PEMA regional office.

Third, Subsection (d) requires notice of the EAP to be posted in the "city, borough and township buildings in the affected municipalities." Does the Department or a dam owner have the feasibility to require these locations to display these postings? The final-form regulation should clarify this issue.

**RESPONSE:**

The Department and PEMA believe by posting the notice in the municipal buildings, as well as other public locations within or near the inundation area, it will help create an awareness in the local municipality and the general public

that they could be located within the dam's inundation area. The permittee or owner is required to post notices in these places with the management's permission. It is because the Department feels it is important that the notices remain posted that the draft regulations require the permittee or owner to certify in the annual inspection report that the notices remain posted or were reposted. The revised annual inspection report form developed by Dam Safety requires the dam owner or their engineer to visit the locations where the notice is posted. If the notice is not displayed, the dam owner or their engineer must replace the notice as required and document this in the annual inspection report. Also, a statement has been included on the notice explaining that it is required to be posted per 105.134 of the Department's regulations (refer to Attachment B). This statement was added in an effort to ensure the notices remain posted.

**COMMENT:**

**13. Sections 105.134. EAP. and 105.135. Dam hazard emergencies.**

These sections are not clear regarding the role of local governments in amended Section 105.134 and as it relates to Section 105.135. For example, relating to Subsection 105.135(c), a commentator suggests that the municipality or county should be notified and will be the authority to take action. We note that the following terms are used in these sections:

- Paragraph 105.134(a)(2) "county emergency management coordinators."
- Subsection 105.134(b) "municipal emergency management agencies."
- Subsection 105.135(c) "appropriate emergency management officials"

and "authorities." We recommend that the EQB review these sections and clearly identify which government entities would participate, approve, receive notifications and take action under each section.

**RESPONSE:**

These Sections are written correctly and pertain to the pertinent Emergency Management Agency offices. The county EMA must review and sign the EAP per Section 105.134(a)(2). The permittee or owner shall provide copies of the approved EAP to the municipal EMAs per 105.134(b). During the time of a dam emergency, the dam owner or operator should refer to their approved EAP and contact the appropriate emergency management officials. Every EAP is developed specifically for each dam. The appropriate emergency management officials and authorities are outlined in the EAP. The permittee or owner is only required to contact the appropriate county PSAP – 911 center. The PSAP - 911 center will contact the county EMA and other emergency response agencies that have responsibilities outlined in the EAP.