

Coal
Standard Operating Procedure
(SOP) No. 3.3

Land Quality Division

SUBJECT: Professional Certification of Impoundments and Roads

Foreword

This Standard Operating Procedure is the internal policy of the Land Quality Division of the Wyoming Department of Environmental Quality covering the topic of professional certification of impoundments and roads. Staff shall not make significant deviations from this policy without the prior approval of the District Supervisor and the Administrator.

Signed this 24th day of January, 2012.



Nancy Nuttbrock,
Administrator, Land Quality Division

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I. Introduction

- A. Professional certification by coal operators of documents submitted to the Wyoming Department of Environmental Quality (WDEQ)/Land Quality Division (LQD) is required by both State and Federal regulations. This SOP is intended to assist LQD staff and operators:
 - i. In complying with the certification requirements.
 - ii. In providing clear professional certifications.
 - iii. In providing timely professional certifications for completed projects.
- B. The purpose of the requirement for professional certification of drawings, designs and structures is to provide the State with assurance that the work was prepared by or under the direction of a competent third party with some professional liability. Clarification of what should be certified and what are to be the allowable conditions of the certification is necessary.
- C. State of Wyoming Regulations require professional certifications to satisfy Federal regulations.
 - i. WDEQ/LQD Coal Rules and Regulations:
 - a. Chapter 2, Section 5(a)(i)(D) Mine Plan maps, impoundment designs
 - b. Chapter 2, Section 5(a)(xvi)(B) primary road designs
 - c. Chapter 4, Section 2(e)(i)(D) diversion design
 - d. Chapter 4, Section 2(g)(iv)(A) impoundment design
 - e. Chapter 4, Section 2(g)(iv)(F) impoundment construction inspection
 - f. Chapter 4, Section 2(g)(iv)(G) annual impoundment inspection
 - g. Chapter 4, Section 2(g)(iv)(M) impoundment alternate criteria
 - h. Chapter 4, Section 2(j)(vii)(A) primary road post-construction report
 - ii. Wyoming State Engineers Office Regulations and Instructions, Part I Surface Water:
Chapter XI, Section 1; Example Impoundment Certification Statement.

II. Certification Statement

- A. Some certification statements contain disclaimers about the contour map on which the design is based or that a structure was inspected by an individual other than the certifier. While it is not reasonable to expect an engineer to be responsible for every aspect of the design and construction, especially those aspects beyond his or her control, some degree of liability must be assumed by the Registered Professional or the certification provides no assurance to the regulatory authority.

The primary purpose of professional certification is to provide the regulatory authority with some degree of assurance that a structure was designed by a competent, responsible individual in accordance with the applicable regulations. In addition, the post-construction certification should provide some assurance that the construction of a structure was supervised by a competent, responsible individual and that the structure was constructed according to the approved design. In the case of "as built" certifications where changes are made to field fit structures during construction, the certification should attest that the structure was constructed to be in compliance with the applicable regulations.

There seem to be five general types of situations requiring different certification statements.

- i. The certification of maps or drawings.
- ii. The certification of submitted designs.
- iii. The certification of a project which was constructed as designed.
- iv. The certification of a project which was modified during construction.
- v. The certification of a structure on a routine (annual) basis of the condition and maintenance of the structure.

B. Examples

In order to provide the state with some assurance of compliance, the following content for each type of example certification statement is suggested:*

- i. Certification block for submitted map, drawing, and/or designs:

I, _____, hereby certify that this map/drawing was prepared (by myself or) under my direct supervision based on a topographic map/aerial photo produced by _____, dated _____ and that it correctly represents the facilities described in the accompanying application which are designed to meet the requirements of the Wyoming Environmental Quality Act and its regulations.

Date

Name and Wyo. P.E. No.

- ii. Post-construction certification statement (impoundment), no map needed:

I, _____, hereby certify that _____ Reservoir was completed on _____, and was constructed under my supervision in accordance with design plans approved by the Wyoming State Engineers Office and Land Quality Division of the Wyoming Department of Environmental Quality.

Date Name and Wyo. P.E. No.

- iii. Post-construction certification statement (road), no map needed:

I, _____, hereby certify that _____ the road (road segment) was completed on _____, and was constructed (reconstructed) under my supervision in accordance with design plans approved by the Land Quality Division of the Wyoming Department of Environmental Quality.

- iv. As-built certification block on map/drawing:

I, _____, hereby certify that this drawing was prepared (by myself or) under my direct supervision, based on an as-built survey performed by on _____ and that it correctly represents the facility constructed in accordance with the requirements of the Wyoming Environmental Quality Act and its regulations.

Date Name and Wyo. P.E. No.

- v. Condition and maintenance certification statement (impoundments only);

I, _____, hereby certify that _____ Reservoir was inspected by (myself or) under my direct supervision on _____ and/or maintained under my direct supervision on _____, in accordance with the requirements of the Wyoming Environmental Quality Act and its regulations.

Date Name and Wyo. P.E. No.

***Note:** These are only examples of suggested content; some flexibility is necessary to meet the requirements of different circumstances and different wording should be allowed, within reason.

III. Enforcement

A. General

Enforcement of the certification requirements could be accomplished through WDEQ/LQD Coal Rules and Regulations, Chapter 4, Section 2(g)(iv)(A) and 2(j)(vii)(A); W.S. 35-11-901(k) or by the State Board of Registration for Professional Engineers and Professional Land Surveyors through their Rules and Regulations (see Chapter 5). The State Board of Registration for Professional Engineers and Professional Land Surveyors have established "Rules of Professional Conduct: (see Chapter 5, Section 1) which requires among other things that Engineers, in the fulfillment of their professional duties, shall:

1. Hold paramount the safety, health, and welfare of the public.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.

B. Impoundments

Historically, the LQD has stressed the need for timely post-construction impoundment certifications. At times these certifications were not available for several months after the impoundment was completed. The LQD recognizes that a partially completed impoundment may not be able to contain its design runoff event or necessary volume of pit pumpage. The LQD's interpretation of regulations is that all impoundments must be certified prior to "use".

"Use" must be defined since water may collect behind dikes and excavations almost immediately after initiation of construction. Often the structure cannot be finished until water is removed and the area is "dried out". To avoid unnecessary confusion between operators, the LQD, and OSM, LQD will apply the requirement as follows:

- i. All impoundment designs must be certified and approved by the LQD prior to construction. Renovations to impoundments which change the capacity, the effluent source, inlet, or outlet must have certified and approved designs prior to construction.
- ii. Sedimentation control ponds for a drainage area must be completed and certified prior to disturbance (i.e. stripping topsoil) in their drainage area. For sediment ponds "use" occurs when an impoundment receives disturbed area runoff.
- iii. Impoundments used exclusively for storing pit pumpage, sewage effluent,

coal processing wastewater, well water, etc. must be certified before that water is directed to the impoundment. “Use” begins when the water is directed to the structure.

- iv. All pit interceptor (pit protection) impoundments which are designed to exclusively capture undisturbed area runoff must be certified when the impoundment is completed. Undisturbed area runoff could naturally collect in pit interceptor or pit protection ponds prior to certification.
- v. Renovations to existing, certified ponds should be similarly treated. If the renovation allows the impoundment to receive additional disturbed area runoff, the expansion should be completed, and the impoundment re-certified prior to allowing the additional area to be disturbed. LQD staff should apply judgment when assessing minor alterations.

D. Roads

“Roads” are defined in WDEQ/LQD Coal Rules and Regulation, Chapter 1, Section 2(ds). Routes of travel within the *immediate mining area*¹ are not roads and are not subject to either pre-construction design or post-construction certification requirements.

Complete designs for the road or road segment include drainage control to safely pass the 10-year, 6-hour or greater event flow if specified by the Administrator.

The following shall apply to enforcing the certification requirements for roads:

- i. Primary roads require complete, certified designs prior to construction as per WDEQ/LQD Coal Rules and Regulations; Chapter 2, Section 5(a)(xvi).
- ii. Post-construction certification of primary roads and primary road segments as per WDEQ/LQD Coal Rules and Regulations; Chapter 4, Section 2(j)(vii)(A) are required within 30 days of road construction completion. The current system of retaining these certification statements at the mine site is satisfactory.

¹ from WDEQ/LQD Coal Rules and Regulations; Chapter 1, Section 2(ds): *immediate mining area* refers to areas subject to frequent surface changes. This includes areas where topsoil and overburden are being moved and areas undergoing active reclamation. It also includes spoil and coal mine waste disposal areas.