



RAILROAD COMMISSION OF TEXAS
SURFACE MINING AND RECLAMATION DIVISION
ADVISORY NOTICE

ADVISORY ID:
EN-PS-347(a)(11)

REVISION NO.:
2

EFFECTIVE DATE:
July 29, 2011

SUBJECT: Inspection and Certification of Impoundments

APPROVAL: John E. Caudle

TITLE: Director

I. PURPOSE

This Advisory Notice provides guidance regarding interpretation of 16 TAC 12.347(a)(11) and 12.344(b)(3) pertaining to inspection and certification of temporary and permanent impoundments during construction, upon completion of construction and annually.

II. REGULATION REFERENCE

Title 16, Texas Administrative Code, Chapter 12, Section 347(a)(11) and (12), Hydrologic Balance: Temporary and Permanent Impoundments

III. USE OF TERMS AND DEFINITIONS

An impoundment, as defined by §12.3, is a closed basin, naturally formed or artificially built, which is dammed or excavated for the retention of water, sediment, or waste. An embankment, as defined in the Natural Resources Conservation Service (NRCS) Practice Standard 378, "Ponds," impounds water to a depth of 3 feet or more against the embankment at spillway elevation. Excavated impoundments may have no embankment or an embankment that does not meet NRCS Practice Standard 378. For purposes of this Advisory Notice, a pond is considered to be the same as an impoundment.

IV. PERMIT DOCUMENTATION AND PERFORMANCE STANDARDS

- A. This Advisory Notice applies to inspection and certification of all temporary or permanent impoundments that retain water, sediment or waste, within a naturally formed or artificially built closed basin which is dammed or excavated.
- B. All impoundments must be inspected and certified, as described in the following:
 - 1. During Construction Inspection and Certification

All impoundments must be inspected by a professional engineer experienced in the construction of impoundments, at least bi-monthly during construction, in accordance with §12.347(a)(11). Each inspection must be documented in the attached Form PC-1, as described in the detailed instructions attached to the form, and provided to the Commission. Permittees may submit these during-construction certifications to the Commission either individually or collectively upon construction completion, but they must be available on-site for review by SMRD Inspection and Enforcement Staff.

2. Completion of Construction Inspection and Certification

All impoundments must be inspected by a professional engineer experienced in the construction of impoundments, upon completion of construction, in accordance with §12.344(b)(3) for sedimentation ponds and in accordance with §12.347(a)(11) for all other impoundments. This final inspection must be documented in the attached Form PC-1, as described in the detailed instructions attached to the form, and provided to the Commission within 30 days following certification of completion of the impoundment.

3. Annual Inspection and Certification

a) All impoundments must be inspected by a professional engineer, experienced in the construction of impoundments, at least once each twelve months. This annual inspection must be documented in the attached Form PC-2, as described in the detailed instructions attached to the form. The annual inspection must be performed no later than one year from the previous inspection or from completion of the construction certification for new impoundments. All certified inspection forms must be provided to the SMRD within 90 days of the earliest inspection report for that year.

b) An impoundment may be exempted from the annual inspection and certification requirements. An exemption may be approved for an impoundment if the permittee can demonstrate:

- i) the impoundment is not approved to be utilized to provide sediment control as part of the approved surface-water control plan,
- ii) the impoundment has no embankment and will not cause potential safety or environmental concerns due to structural integrity or any other hazardous condition, and
- iii) has no monitoring system requiring inspection or maintenance.

4. Impoundments meeting the NRCS Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR 77.216 must be examined in accordance with 30 CFR 77.216-3. If MSHA or NRCS approve reduced monitoring frequencies, a copy of the approval letter from NRCS or MSHA must be provided to SMRD. Documentation of impoundment examinations made under this section must be available on-site for review by SMRD Inspection and Enforcement Staff.

5. Quarterly Inspection

All impoundments not meeting the NRCS Class B or C criteria for dams in TR-60, or subject to 30 CFR 77.216 shall be examined at least quarterly, unless exempted under Section 3.b) of this Advisory Notice. Documentation of these examinations and a list of impoundments exempted under Section 3.b) of this Advisory Notice must be available on-site for review by SMRD Inspection and Enforcement Staff.

ANNUAL CERTIFICATION OF IMPOUNDMENTS

Mine Name: _____ Permittee Name: _____
 Permit No: _____ Impoundment: _____
 Inspector: _____ RCT Approval Date: _____
 Inspection Date: _____ Last Inspection Date: _____

Impoundment Type:

- Temporary MSHA (ID# _____)
 Permanent Sedimentation

Characteristics	Approved	Last Inspection	Current Inspection
Emergency Spillway Elevation (ft amsl)			
Principal Spillway Elevation (ft amsl)			
Pond Bottom Elevation (ft amsl)			
Existing Storage Capacity (ac-ft)			
Water Elevation (ft amsl)			
Depth of Water (ft)			

Monitoring procedures/instrumentation required for this pond? YES NO

If yes, describe: _____

Appearance of instability, structural weakness or other hazard conditions? YES NO

If yes, describe: _____

I certify that I, or someone under my direct supervision, inspected the impoundment and its appurtenances. To the best of my knowledge, the pond has been constructed and/or maintained as designed in accordance with the approved plans and specifications, TAC Chapter 12 and §12.347(a)(11).

 Licensed Professional Engineer

 License No. Date

(Engineer's Seal)

**CERTIFICATION OF IMPOUNDMENTS
DURING AND UPON COMPLETION OF CONSTRUCTION
INSTRUCTIONS FOR FORM PC-2**

General Information	<p>Complete one certification form for each impoundment. List the permittee and mine name, permit identification number and impoundment name as it is shown in the approved permit. Identify the date of this inspection and the last inspection.</p> <p>Provide certifications at least bi-monthly during construction of impoundments and indicate the status of construction in the space provided (i.e., during construction or construction completion).</p> <p>Complete both certification sections for sedimentation ponds when construction is complete.</p>
Date of RCT Approval	Indicate the latest date of Commission approval of detailed design plans, which may be for the initial design plans, revised plans or reanalysis of the pond.
Person Conducting this Inspection	Identify the name of the person (with license, if applicable) who conducted this inspection. This person may differ from the engineer certifying the pond.
Type of Impoundment	Check all boxes that apply (temporary, permanent, sedimentation and/or MSHA impoundments). For MSHA impoundments, list the MSHA identification number in the space provided.
Spillway Elevation	For all ponds, record the elevation of the emergency and principal spillways at the time of inspection. Also report the approved spillway elevations.
Pond Bottom Elevation	For all ponds, record the elevation of the pond bottom at the time of the inspection. Also report the approved pond bottom elevation.
Existing Storage Capacity	For all ponds, calculate the existing storage capacity using the inspected pond bottom (based on current pond bathymetry) and the lowest uncontrolled spillway elevation, reported in acre-feet. Also report the approved total storage.
Water Elevation	For all ponds, record the observed water elevation at the time of the inspection.
Depth of Water	For all ponds, calculate the depth of water at the time of inspection using the inspected pond bottom and water elevations, reported in feet.
Available Sediment Storage	For sedimentation ponds, calculate the sediment storage using the existing storage capacity and approved sediment storage elevations, reported in acre-feet.
Required Sediment Storage	For sedimentation ponds, list the required sediment storage from the approved design plans.
Modifications from Approved Plans	Indicate whether alterations were made to the approved design plans. If "yes," detail all modifications from the approved design plans on attached pages and/or maps. Additional sheets must be signed and sealed by the licensed professional engineer or geoscientist.

**CERTIFICATION OF IMPOUNDMENTS
DURING AND UPON COMPLETION OF CONSTRUCTION**

Mine Name: _____ Permittee Name: _____
 Permit No: _____ Impoundment: _____
 Inspector: _____ RCT Approval Date: _____
 Inspection Date: _____ Last Inspection Date: _____
 Impoundment Type: _____ Construction Status: _____
 Temporary MSHA (ID# _____)
 Permanent Sedimentation

Characteristics	Approved	As-Built
Emergency Spillway Elevation (ft amsl)		
Principal Spillway Elevation (ft amsl)		
Pond Bottom Elevation (ft amsl)		
Existing Storage Capacity (ac-ft)		
Water Elevation (ft amsl)		
Depth of Water (ft)		

Are there any field modifications? YES NO

If yes, describe (add additional sheets as necessary): _____

I certify that I, or someone under my direct supervision, inspected the impoundment and its appurtenances. To the best of my knowledge, the pond has been constructed and/or maintained as designed in accordance with the approved plans and specifications, TAC Chapter 12 and §12.347(a)(11).

Licensed Professional Engineer

License No. Date

(Engineer's Seal)

Complete for Sedimentation Ponds	
Calculated Characteristics	Approved Characteristics
Available Sediment Storage _____ ac-ft	Sediment Storage Elevation: _____ ft amsl
	Sediment Storage: _____ ac-ft
	Required Sediment Storage _____ ac-ft

I certify that I, or someone under my direct supervision, inspected the impoundment and its appurtenances. To the best of my knowledge, the pond has been constructed and/or maintained as designed in accordance with the approved plans and specifications, TAC Chapter 12 and §12.344(b)(3).

Licensed Professional Engineer

License No. Date

(Engineer's Seal)

**ANNUAL CERTIFICATION OF IMPOUNDMENTS
INSTRUCTIONS FOR FORM PC-1**

General Information	<p>Annual certifications are required for all impoundments, as described in this Advisory Notice.</p> <p>Complete one certification form for each impoundment. List the mine name and permittee, permit number and impoundment name as it is shown in the approved permit. Identify the date of this inspection and the last inspection.</p>
Date of RCT Approval	Indicate the latest date of Commission approval of detailed design plans, which may be for the initial design plans or revised plans.
Person Conducting this Inspection	Identify the name of the person (with license, if applicable) who conducted this inspection. This person may differ from the engineer certifying the pond.
Type of Impoundment	Check all boxes that apply (temporary, permanent, sedimentation and/or MSHA impoundments). For MSHA impoundments, list the MSHA identification number in the space provided.
Spillway Elevation	For all ponds, record the elevation of the emergency and principal spillways at the time of inspection. Also report the approved spillway elevations and previously inspected elevations.
Pond Bottom Elevation	For all ponds, record the elevation of the pond bottom at the time of the inspection. Also report the approved pond bottom elevation and the previously inspected elevation.
Existing Storage Capacity	For all ponds, calculate the existing storage capacity using the inspected pond bottom (based on current pond bathymetry) and the lowest uncontrolled spillway elevation, reported in acre-feet. Also report the approved total storage and the previously inspected existing storage capacity.
Water Elevation	For all ponds, record the observed water elevation at the time of the inspection. Also provide the previously observed water elevation.
Depth of Water	For all ponds, calculate the depth of water at the time of inspection using the inspected pond bottom and water elevations, reported in feet. Also provide the previously observed depth of water.
Monitoring Procedures/Instrumentation Required for this Impoundment	Indicate whether monitoring procedures or special instrumentation are required for this impoundment. If "yes," detail this information on attached pages and/or maps.
Appearance of Instability, Structural Weakness or other Hazard Condition	Indicate whether any observed appearance of instability structural weakness or other hazard condition existed at the time of this inspection. If "yes," detail this information on attached pages and/or maps.