OGMCOAL - 2010 4th Qtr Cert. Pond Inspections

From: "Galecki, Gregg" <GGalecki@archcoal.com>
To: "OGMCOAL@utah.gov" <OGMCOAL@utah.gov>
Date: 3/10/2011 8:10 AM
Subject: 2010 4th Qtr Cert. Pond Inspections
CC: Karl Houskeeper <karlhouskeeper@utah.gov>, "Galecki, Gregg" <GGalecki@ar...
Attachments: pond002-4th10.pdf; pond003-4th10.pdf; pond001-4th10.pdf

Karl,
Attached are the 4th Quarter 2010 (annual) certified Pond Inspections.

Sorry I neglected to forward these to you earlier when I sent the certified Refuse Pile Report.

Gregg A. Galecki
Environmental Engineer
Canyon Fuel Company, LLC
Skyline Mine
(435)448-2636

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IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	**Report Date**	December 23, 2010
Mine Name	Skyline Mine		
Company Name	Canyon Fuel Company		
Impoundment Identification	**Impoundment Name**	Mine Site Sediment Pond	
	Impoundment Number	001	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	

IMPOUNDMENT INSPECTION

Inspection Date	November 12, 2010
Inspected By	Carl Winters / Gregg Galecki
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No signs of instability were observed. No hazardous conditions were observed during the inspection of the pond. The pond was barely discharging (~10-15 gpm) at the time of the inspection. The pond is incised, with all the banks appearing stable. Particular attention was paid to the pond banks looking for signs of instability or structural weakness. The pond was cleaned during the 3rd Quarter 2010.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Sediment Storage Capacity: 86,721 ft^3 (based on 2010 survey)
60% Elevation: 8571.26 feet ASL (above sea level)
100% Elevation: 8573.03 feet ASL
The elevation of the sediment within the pond was not measured at the discharge point due to ice. In the 3rd Quarter, the sediment was 10.90 feet below the surface or an elevation of 8568.70 feet. No delta was present at the inlet of the sediment pond.

3. Principle and emergency spillway elevations.

Principal and Emergency Spillway Elevations: 8579.6 feet ASL (The outlet structure for Pond 001 serves as both the Principal and Emergency Spillways)
Total volume of pond at Spillway: 249,731 ft^3
Required runoff storage: 163,010 ft^3
100% Sediment storage: 86,721 ft^3
60% Sediment storage: 52,032 ft^3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water level at discharge point (8579.5 ft ASL) was level with the spill point. The sediment pond discharged periodically during the quarter. A sample of the mine discharge water, (normally) including this pond's discharge, is taken on weekly basis throughout the quarter as required by the Mine's UPDES permit. On a biweekly basis the water sample is analyzed for total iron. Weekly samples include oil and grease, total dissolved solids, total suspended solids, pH and conductivity. Flow is recorded by in-line flow meters.

Surface water is collected from the upper mine pad and discharged to the pond through a culvert located on the west end of the pond. The culvert is functioning as designed. The outlet structure was working as designed and appears to be in good working condition. The pond is an incised structure. Minimal vegetation exists on the banks.

A series of turbidity curtains are installed in the pond to help reduce the suspended load within the pond. The spillway was clear of debris and was functioning as designed.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The overall geometry or footprint of the pond has not changed. However during cleaning in 2010, the south and southwest portions of the pond are deeper than previously surveyed. The minimum water elevation was approximately 4 feet below the spillway structure. Based on the 2010 survey and depth measurements, approximately 86,721 ft^3 of sediment storage is available in the pond. Based on a sediment elevation of 8568.70 feet, the sediment level is at approximately 18 percent of the sediment capacity. An estimated 72,000 ft^3 of material was removed from the pond during the cleaning in 2010.
Turbidity curtains were functioning as designed. Spill Kits were labeled and full of supplies.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:**

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	Yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	Yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	Yes	

COMMENTS AND OTHER INFORMATION

Exceedances of the tons/per day permit limit have occurred in this quarter and throughout 2010. However, since the water quality was acceptable with regard to all other parameters and Skyline Mine is participating in a downstream salinity reduction program with the Utah Division of Water Quality (as allowed in the Mine's UPDES Permit), no enforcement action is warranted.

The pond is inspected from a general perspective on a weekly basis while collecting discharge samples.

Certification Statement:

REGISTERED PROFESSIONAL ENGINEER
CARL W WINTERS
NO 22 157958-2202
12-28-10
[PE/Cert. Stamp]

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By:
Carl W. Winters, Engineering Manager

Signature: Carl W. Winters **Date:** December 28, 2010

P.E. Number & State:

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	**Report Date**	December 23, 2010
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	**Impoundment Name**	Rail Loadout Sediment Pond	
	Impoundment Number	002	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	

IMPOUNDMENT INSPECTION

Inspection Date	November 12, 2010
Inspected By	Carl Winters / Gregg Galecki
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No instability of the embankment or hazardous conditions was noted during the inspection. The inlet is slightly eroding; armoring rock / rip rap will need to be added in the future.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Sediment Storage Capacity: 22,963 ft^3
60% Elevation: 7914.46 feet ASL (above sea level)
100% Elevation: 7915.40 ASL
The current elevation of the sediment within the pond was not measured due to thick ice. Last quarter the sediment was measured at 6.15 feet below the discharge point at an approximate elevation of 7913.55 feet. This depth more closely illustrates the volume of the pond than during previous quarterly inspections because a boat was used to check the average depth in the center of the pond. No significant amount of material appears to have been added to the pond since the last inspection. The turbidity curtains were in place and functioning as designed during the inspection.

3. Principle and emergency spillway elevations.

Principle Spillway Elevation: 7919.7 feet ASL
Emergency Spillway Elevation: 7922 feet ASL
Total volume of pond at Spillway: 68,701 ft^3
Required runoff storage: 45,738 ft^3
100% Sediment Storage: 22,963 ft^3
60% Sediment Storage: 13,778 ft^3

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The depth of the water was 0.40 feet below the spill point of the principal spillway at the time of the inspection.

The pond discharged during the quarter on December 22, 2010 due to snow melt. The pond embankment appears stable and without noticeable erosion, and the banks are well-vegetated. No animal holes were noted in the embankment. The footprint of the pond remains unchanged.

Two turbidity curtains contain a majority of material in the upper, west side and south sides (inlets) of the pond where sediment can be periodically removed. The pond currently has three (3) turbidity curtains. All three (3) turbidity curtains were functioning as designed during the inspection. The discharge pipe or outlet is in good condition and functioning as designed.

The pond was completely drained and cleaned during the 3rd quarter 2007. The 2007 survey indicated the available sediment capacity is approximately 22,963 ft^3.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The geometry of the pond does not appear to have changed significantly with the removing of sediment in September 2007. Moderately sized deltas continuously form upstream of the turbidity curtains installed at the inlets. On average, the water depth was 1-4 feet below the depth of the discharge pipe during the quarter. Since sediment is not deposited uniformly in the pond, the sediment level is estimated at slightly more than 7913.55ft. This is significantly more space than previously reported since sediment elevations were averaged based on a method using a boat to check the depth of the center of the pond during the 3rd Quarter 2010. Based on the sediment elevation of approximately 7913.55 ft, approximately 8,762 ft^3 of sediment storage remains to fill the pond to the 60% sediment storage level. The volume calculations are based on a combination of the survey conducted in the Fall 2007 following the cleaning of the pond and both sediment levels and a check of the center of the pond during the 3rd quarter. The visual inspection indicated minimal additional sediment was accumulated during the quarter.

The pond is routinely inspected on a weekly basis during weekly water monitoring.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:**

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	Yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	Yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	Yes	

COMMENTS AND OTHER INFORMATION

Certification Statement:

REGISTERED PROFESSIONAL ENGINEER
CARL W WINTERS
NO 22 167958-2202
STATE OF UTAH

[PE Cert. Stamp]

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By:
Carl W. Winters, Engineering Manager

Signature: Carl W. Winters **Date:** December 28, 2010

P.E. Number & State:

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	**Report Date**	December 23, 2010
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	**Impoundment Name**	Waste Rock Site Sediment Pond	
	Impoundment Number	003	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	

IMPOUNDMENT INSPECTION

Inspection Date	November 12, 2010
Inspected By	Carl Winters / Gregg Galecki
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No instability, structural weakness or other hazardous condition was noted at the site during the quarterly pond site inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.	**2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.** Sediment Storage Capacity: 9,939 ft^3 60% Elevation: 7857.2 feet ASL (above sea level) 100% Elevation: 7858.1 ASL Current Sediment Level Elevation: The pond was cleaned of sediment in August 2007. The pond was resurveyed to estimate the available sediment capacity following the cleaning. A bedrock shelf exists in the bottom of the pond, enabling portions of the pond to be deeper in areas where the shelf does not exist. The sediment level is 2.4 feet below the decant pipe (elev. 7857.2)
	3. Principle and emergency spillway elevations. Principal and Emergency Spillways Elevation: 7864.0 feet ASL (The outlet of Pond 003 serves as both the principal and emergency spillway). A manual decant pipe in the pond marks the sediment cleanout elevation of 7857.2 feet.

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

This pond did not discharge during the 4th quarter of 2010, therefore no water samples were obtained. Approximately 1/3 of the bottom of the pond contained a puddle of ice. The out slopes of the pond embankment do not appear to present any type of hazardous conditions. No instability was noted in the pond embankment. The pond embankment is stabilized with native grasses – and portions of the outslope of the embankment were widened in 2010 to accommodate the existing road on top of the embankment. The pond was thoroughly cleaned in August 2007, and the capacity land surveyed. Based on the survey, the pond has a sediment capacity of approximately 9,939 cu-ft.

The current sediment storage capacity is based on the 2007 survey. The perimeter footprint of the pond did not change during the cleaning project, only the depth of the pond was modified.

The pond is routinely inspected during weekly water monitoring, with the exception late 4th quarter and the 1st quarter when the site is inaccessible to vehicles due to snow.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The pond was cleaned in August 2007. No changes or modifications from the cleaning have been noted in the geometry or perimeter footprint of the pond since the last inspection. Typically, the pond was dry during the quarter – containing minor water immediately after precipitation event. The current sediment level measured at the decant indicates the accumulated sediment is approximately 8 percent of capacity. Since the pond collects water only periodically, and a rock outcrop exists in the middle of the pond, sediment does not fill the pond uniformly and tends to accumulate at the inlet. Field observations estimate the current sediment storage capacity is approximately 40 percent of the 9939 cu-ft capacity. Minimal run off was encountered during the quarter, with the pond functioning as designed.

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CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	Yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	Yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	Yes	

COMMENTS AND OTHER INFORMATION

The pond did not discharge in 2009.

Certification Statement:

REGISTERED PROFESSIONAL ENGINEER
CARL
W
WINTERS
NO 22 167958-2202
STATE OF UTAH
12-28-10
[PE Cert. Stamp]

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By:
Carl W. Winters, Engineering Manager

Signature: Carl W. Winters **Date:** December 28, 2010

P.E. Number & State: