

OGMCOAL - 3rd Quarter Pond / Refuse inspections

From: "Galecki, Gregg" <GGalecki@archcoal.com>
To: "Karl Houskeeper (karlhouskeeper@icloud.com)" <karlhouskeeper@icloud.com...>
Date: 10/26/2012 12:57 PM
Subject: 3rd Quarter Pond / Refuse inspections
CC: "Galecki, Gregg" <GGalecki@archcoal.com>
Attachments: RefuseInspection-3rd2012.pdf; 3rdQtr2012Pond Inspections.pdf

Karl,

Attached are the Skyline Pond(s) and Refuse pile inspections for the 3rd Quarter 2012.

Let me know if you have any questions,

Gregg A. Galecki
Environmental Engineer
Canyon Fuel Company, LLC – Skyline Mine
(435)448-2636
ggalecki@archcoal.com

***Email Disclaimer: The information contained in this e-mail, and in any accompanying documents, may constitute confidential and/or legally privileged information. The information is intended only for use by the designated recipient. If you are not the intended recipient (or responsible for delivery of the message to the intended recipient), you are hereby notified that any dissemination, distribution, copying, or other use of, or taking of any action in reliance on this e-mail is strictly prohibited. If you have received this e-mail communication in error, please notify the sender immediately and delete the message from your system.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE			
Permit Number	C/007/005	Report Date	October 26, 2012
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company, LLC		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Skyline Waste Rock Site	
	Pile Number	1211-UT-09-01566-01	
	MSHA Mine ID Number	42-01566	
Inspection Date	September 29, 2012		
Inspected By	Gregg Galecki / Carl Winters		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Quarterly	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
<i>No significant problems with the waste site were observed during the 3rd quarter 2012.</i>			
1. Foundation preparation, including the removal of all organic material and topsoil. No contemporaneous reclamation was performed at the site during the quarter.			
2. Placement of underdrains and protective filter systems. No underdrains are present or required at this site. Areas that are to final grade are capped with the prescribed amount of topsoil, seeded, top-dressed with straw, then held in place with a matting material.			
3. Installation of final surface drainage systems. Existing surface is not at final contour. Therefore, final surface drainages have not yet been constructed. All surface runoff from the refuse pile is treated by the sediment pond. No water is allowed to impound on the pile. Runoff from the main access road below the sediment pond is treated by straw bale and silt fence dikes.			
4. Placement and compaction of fill materials. A total of approximately 6827 tons of rock from the Winter Quarters Ventilation Facility (WQVF) was hauled to the site during the 3 rd quarter 2012. Waste rock from the Winter Quarters area is stockpiled at the Waste Rock site. Once a sufficient amount of waste rock has accumulated, the material is placed in lifts of 24-inches or less and compacted in place using a tracked dozer and sheep-foot roller or another method to insure stabilization at final placement.			
5. Final grading and revegetation of fill. When the waste rock is placed permanently, contemporaneous reclamation of the waste rock pile will take place as the site is backfilled. The backfill slopes are built to 1 1/2h:1v or less and seeded as described in the final reclamation plan. The seed mix specified in the Reclamation Plan is planted after the placement of topsoil.			
6. Appearances of instability, structural weakness, and other hazardous conditions. No obvious instability or structural weakness was noted during the 3 rd quarter 2012 inspection. No signs of slumping or heaving were observed. Material being brought to the site is being placed against the highwall to minimize the highwall exposure. No hazardous conditions were noted on the highwall during the inspection.			

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

The sedimentation pond retained only minor water, not covering the entire bottom of the pond. The pond was cleaned of sediment during the quarter – increasing the sediment storage capacity.

The primary ditch leading from the pile to the Sediment pond was eroding. Rock was subsequently added to armor the ditch. All other drainage were functioning as designed.

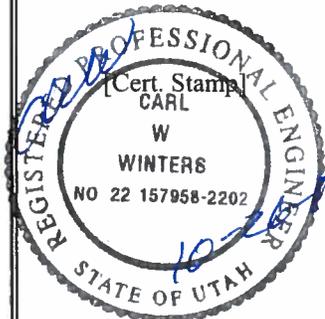
No hazardous conditions were observed at the time of the inspection.

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Historic records indicated the total storage capacity was approximately 334,125 tons. An application to expand the size of the refuse pile was approved February 29, 2008. A portion of the expansion area has been used for topsoil storage. Approximately 6,827 tons of material was hauled to the site during the 3rd quarter 2012, totaling approximately 28,575 tons of material hauled in 2012. This material is being placed along the highwall of the pit to minimize the vertical exposure. Most of the pit highwall is now completely backfilled.

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure 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.



By: Carl W. Winters, Engineering Manager

(Full Name and Title)

Signature: *Carl W. Winters* Date: October 26, 2012

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	October 26, 2012
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	September 13, 2012		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No signs of instability were observed. No hazardous conditions were observed during the inspection of the pond. The pond was not discharging 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 2nd Quarter 2012.</p>			
<p>Required for an impoundment which functions as a SEDIMENTATION POND.</p>	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Storage Capacity: 122,317 ft³ (based on 2012 survey) 60% Elevation: 8571.52 feet ASL (above sea level) 100% Elevation: 8573.71 feet ASL The sediment was 13.33 feet below the surface or an elevation of 8566.27 – measured at the pond outlet; not the true bottom of the pond.</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>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: 285,327 ft³ Required runoff storage: 163,010 ft³ 100% Sediment storage: 122,317 ft³ 60% Sediment storage: 73,902 ft³</p>		

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 out slopes of embankments, etc.

The water level in the pond was level with the discharge but not discharging. 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.

A series of turbidity curtains are installed in the pond to help reduce the suspended load within the pond. The turbidity curtains were functioning as designed. 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 2012, a significant amount of sediment was removed from the pond providing additional space. The minimum water elevation was approximately zero or roughly 14.6 feet below the discharge structure in the center of the pond. Based on the 2012 survey and depth measurements, approximately 122,317 ft³ of sediment storage is available in the pond. Based on a sediment elevation of 8566.27 feet, the sediment level is at approximately 19 percent of the sediment capacity. 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: 10-26-12

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	October 26, 2012
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	September 13, 2012		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No instability of the embankment or hazardous conditions was noted during the inspection.</p>			
<p>Required for an impoundment which functions as a SEDIMENTATION POND.</p>	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Storage Capacity: 9,572 ft³ 60% Elevation: 7914.27 feet ASL (above sea level) 100% Elevation: 7914.85 ASL</p> <p>The sediment level in the pond was measured at 4.62 feet below the spillway during the 3rd quarter inspection.</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation: 7919.7 feet ASL Emergency Spillway Elevation: 7922 feet ASL Total volume of pond at Spillway: 52,696 ft³ Required runoff storage: 43,124 ft³ 100% Sediment Storage: 9,572 ft³ 60% Sediment Storage: 5,743 ft³</p>		

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 out slopes of embankments, etc.

Water elevation was 1.25 feet below the spillway during the inspection.

The pond did not discharged during the quarter. The pond embankment appears stable and without noticeable erosion. Both the inlet and outlet are functioning as designed. 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.

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 remains consistent. The average depth of the water was approximately 1.25 to 1.5 feet below the spillway during the quarter. The estimated sediment storage capacity remains close to 5,700 cu-ft – as surveyed during the 3rd quarter 2011.

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: *Gregg A. Joleski* Date: 10-26-12

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	October 26, 2012
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	September 13, 2012		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No instability, structural weakness or other hazardous condition was noted at the site during the quarterly pond site inspection.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Storage Capacity: 9,939 ft³ 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 September 2012. 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 0.85 feet below the decant pipe or an elevation of 7857.25ft.</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>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 7858.1 feet. The storage volumes below are based on 2012 survey. Total volume of pond at Spillway: 61,770 ft³ Required runoff storage: 35,036 ft³ 100% Sediment storage: 26,734 ft³ 60% Sediment storage: 16,040 ft³</p>		

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 out slopes of embankments, etc.

This pond did not discharge during the 3rd quarter of 2012, therefore no water samples were obtained. The pond had a small volume of water, covering approximately 1/4 of the bottom of the pond during the inspection. 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 out slope of the embankment were widened in 2010 to accommodate the existing road on top of the embankment. The out slopes were covered with well-established vegetation during the inspection. The pond was thoroughly cleaned in September 2012, and the capacity land surveyed. Based on the survey, the pond has a sediment capacity of approximately 26,734 cu-ft.

The current sediment storage capacity is based on the 2012 survey. The perimeter footprint of the pond did not change during the cleaning project, only the depth of the pond was modified.

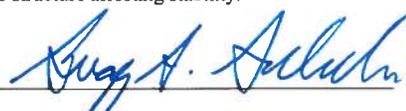
The pond is routinely inspected during weekly water monitoring.

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.

No changes or modifications have been noted in the geometry of the pond since the last inspection. The pond retained water periodically during the 3rd quarter. The bottom of the pond was approximately 3.0 feet below the discharge pipe during the inspection. Based on the current sediment level measured at the decant pipe, the accumulated sediment is approximately zero percent of the 26,734 cu-ft sediment 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. Minimal run off was encountered during the quarter, with the pond functioning as designed.

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: 10-26-12

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	October 26, 2012
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	Impoundment Name	Winter Quarters Ventilation Facility Sediment Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	
IMPOUNDMENT INSPECTION			
Inspection Date	September 13, 2012		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No instability, structural weakness or other hazardous condition was noted at the site during the quarterly pond site inspection.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Storage Capacity: 740 ft³ 60% Elevation: 8072.15 feet ASL (above sea level) per as-built survey 100% Elevation: 8072.6 ASL per as-built survey Current Sediment Level Elevation: The pond was dry during the inspection. It appears no appreciable amount of sediment has been deposited in the pond.</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principal Spillways Elevation: 8076.32 feet ASL (per C. Ware survey) Emergency Spillway Elevation: 8076.73 feet ASL (per C. Ware survey) Total Volume of pond at Spillway: 4914 cu-ft (per C. Ware survey) Required runoff storage: 4,182 cu-ft 100% Sediment Storage: 740 cu-ft 60% Sediment Storage: 444 cu-ft</p>		

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 out slopes of embankments, etc.

This pond did not discharge during the 3rd quarter of 2012, therefore no water samples were obtained. The pond did not receive substantial runoff during the quarter. The out slopes of the pond embankment do not appear to present any type of hazardous conditions. Both the inlet and outlet are clear and appear to be ready to function as designed. No instability was noted in the pond embankment. The pond embankment was hydro-seeded in 2011 to establish vegetation on the out slopes. Vegetation continues to be established adding further stability to the embankment.

The as-built survey determined the sediment storage for the pond is 740 cu-ft.

The pond is routinely inspected during weekly water monitoring.

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 constructed during the 1st Qtr 2011. No changes or modifications have been noted in the geometry or perimeter footprint of the pond since construction. The pond was functioning, and contained minor water periodically during the 3rd quarter 2012. Minor water was present during the inspection. Field observations estimate the current sediment storage capacity is approximately 100 percent of the 740 cu-ft capacity. Minimal run off was encountered during the quarter, with the pond functioning as designed.

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: *Gregg T. Gulich* Date: 10-26-12