

K P R G

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**EROSION REPAIR DOCUMENTATION**

September 16, 2010

Mr. James DiCola  
Midwest Generation, LLC  
1800 Chamahon Road  
Joliet, IL 60436

VIA E-MAIL and U.S. MAIL

KPRG Project No 15209.3

Re: Joliet #29 Former Ash Burial Area Erosion Repair Documentation 2010

Dear Mr. DiCola:

KPRG and Associates, Inc. (KPRG) completed a walk-over inspection of the former ash burial area on the northeast side of the Joliet #29 property, both inside and outside the fenced boundary of the facility. The inspection was performed on August 23<sup>rd</sup>, 2010. The purpose of the inspection was to identify any erosional features that may expose the underlying buried ash/slag and channel runoff toward the Des Plaines River which is immediately south of this area. It is our understanding that the ash burial area is included within the storm water/discharge permit for the facility and this inspection is part of permit compliance requirements.

During the inspection, KPRG identified five areas where either sheet wash erosion or rilling had exposed, or may expose, the underlying ash/slag and resulting in potential transport of material to the Des Plaines River. These are identified as Areas 1 through 5 below. The cover repair work was performed on September 14, 2010. Allied Landscaping was contracted by KPRG to perform the work under the direction of a KPRG scientist/engineer. For each of the five areas, the following repair work was performed:

- Area 1 – Located at coordinates N41° 29.589'/W88° 07.012'. This was an area of rill development and ash exposure. The rill was forked at the top of the embankment and combined into one rill at the center of the embankment. It was approximately 30 feet long, 3 to 5 feet wide and 1.5 feet deep.

The repair consisted of filling in the rill with clayey top soil which was then mechanically compacted and seeded with a mix of all purpose seed and annual rye. This was then covered with an erosion mat. A straw log was placed along the

14665 West Lisbon Road, Suite 28 Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

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top of the subject area to help reduce runoff erosional effects. Photographs are provided in Attachment 1.

- Area 2 – Located at N41° 29.872'/W88° 06.992'. This was an area of exposed ash along the central portion of the embankment subject to sheet runoff. It area was approximately 25 feet long and 8 feet wide.

The repair included prepping/grading an approximate 30' x 10' surface area (this included the subject area and a sufficient buffer around the area) and properly placing 4" to 6" of clayey top soil. The top soil was seeded with a mix of all purpose seed and annual rye. This was then covered with an erosion blanket. A series of straw logs were placed along the top of the subject area to help reduce sheet runoff erosional effects. Photographs are provided in Attachment 1.

- Area 3 – Located at N41° 30.068'/W88° 06.419'. This was an area of some exposed soil and ash along the central portion of the bank slope which is exposed to sheet runoff. The area was approximately 40' x 15' in size.

The repair included prepping/grading the area and properly placing 4" to 6" of clayey top soil. The top soil was seeded with a mix of all purpose seed and annual rye. This was then covered with an erosion blanket. Photographs are provided in Attachment 1.

- Area 4 – Located at N41° 30.068'/W88° 06.834'. This was an area where a rill had developed and started to incise into the bank. The rill was about 25 feet long, 8 feet deep and 1.5 to 2 feet wide.

The repair consisted of filling in the rill with clayey top soil, mechanically compacting the material and seeding with a mix of all purpose seed and annual rye. This was then covered with an erosion mat. A straw log was placed along the top of the subject area to help reduce runoff erosional effects. Photographs are provided in Attachment 1.

- Area 5 – Located at N41° 29.908/W88° 06.937'. This was an area where two rills had developed. One rill was forked and was approximately 120 feet long, 8 feet wide and 2 feet deep. The second rill was straight, approximately 125 feet long, 4 feet wide and 2 to 2.5 feet deep. Both rills dissipated prior to incising into the side of the bank.

The repair consisted of filling in the rills with clayey top soil, mechanically compacting the material and seeding with a mix of all purpose seed and annual rye. This was then covered with an erosion mat. Straw logs were placed along the top of each subject rill to help reduce runoff erosional effects. Photographs are provided in Attachment 1.

Mr. James DiCola  
Midwest Generation, LLC  
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KPRG appreciates the continued opportunity for providing our technical services to Midwest Generation. If there are any questions, please contact me at 262-781-0475.

Sincerely,  
KPRG and Associates, Inc.

*Richard R Gnat*

Richard R. Gnat, P.G.  
Principal

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KPRG and Associates, Inc.

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**ATTACHMENT 1**  
**Photodocumentation**

Photodocumentation - Joliet #29 Ash Burial Area Erosion Repairs 2010



1. Side rill Area 1 before repair



3. Exposed ash Area 2 before repair



2. Area 1 after repair.



4. Area 2 after repair

Photodocumentation - Joliet #29 Ash Blunt Area Erosion Repairs 2010



3. Area 3 before repair.



6. Area 3 after repair.



7. Area 4 hill before repair.



8. Area 4 hill filled and compacted.



9 Area 4 after repair



10 Area 5 straight rill before repair (prepped).



11 Area 5 straight rill after repair looking north.



12 Area 5 straight rill after repair looking south.



13. Area 5 forked till before repair (prepped)



15. Area 5 forked till after repair looking north



14. Area 5 forked till after filling and being seeded.



16. Area 5 forked till after repair looking south.