

**ENVIRONMENTAL CONSULTATION & REMEDIATION**

KPRG and Associates, Inc.

**EROSION REPAIR DOCUMENTATION**

September 26, 2009

Ms. Elsie Briette  
Midwest Generation, LLC  
1800 Channahon Road  
Joliet, IL 60436

VIA E-MAIL

KPRG Proposal No. 15209.1

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

Dear Ms. Briette:

On August 24<sup>th</sup> and 25<sup>th</sup>, 2009 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. 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.

Six areas of noted erosion were detailed in the KPRG inspection summary report dated August 27, 2009 and were identified as requiring repair. On September 23 through 25, 2009, KPRG and our subcontractor, Allied Landscaping, completed repairs of exposed ash erosional features along the Des Plaines River associated with the former ash burial area located to the east of the Joliet #29 facility. Specifically, the six areas and the repairs performed were as follows:

- Area 1 – Located at coordinates N41° 30.068'/W88° 06.419'. This was an area of sheet wash which had eroded some of the gravel/rock cover and had started to expose some underlying ash/slag. The area of ash exposure was about 30' wide and extended from the top of the slope to the river water interface.

Repair: The repair included prepping/grading of an approximate 50' x 50' 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. The annual rye will accommodate germination in the fall months. This was then covered with a green wood-fiber erosion

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

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blanket. A series of straw logs was placed along the top of the subject area to help reduce sheet runoff erosional effects.

- Area 2 – Located at N41° 29.950/W88° 06.621'. This was an area of a deeply incised, sinuous gully that breached the existing earthen/rock berm within this area. It is located within a heavily vegetated area. The gully was approximately 50' long, up to 4' deep and 10' wide. There was evidence of ash/slag in the bottom of the gully.

Repair: As part of the repair, a 3' to 4' clay berm topped with rip rap was constructed to mend the breach in the existing berm. The gully was grubbed out to allow for sufficient sunlight penetration to accommodate subsequent seed germination. The gully was then dressed with clayey top soil and seeded with a mix of all purpose seed and annual rye. This was then covered with a green wood-fiber erosion blanket and straw logs were placed at the top of the gully to help reduce runoff energy while the seeds germinate.

- Area 3 – Located at N41° 29.916'/W88° 06.683'. This was an area at the top of the bank which had ash/slag exposed to sheet runoff. The area was approximately 30' x 30' in size. The side slope of bank itself was in good condition.

Repair: The area was cleared and 4" to 6" of top soil and seed with a mix of all purpose seed and annual rye was placed. The area was then covered with a green wood-fiber erosion blanket.

- Area 4 – Located at N41° 29.894'/W88° 06.732'. This area had a small rill that had started to form with some evidence of ash and slag toward the bottom. The rill was about 15' long, 2' deep and 3' to 4' wide. The remainder of the bank side slope was in good condition.

Repair: The rill was filled in with clayey top soil and seeded with a mix of all purpose seed and annual rye. This was then covered with a green wood-fiber erosion mat. Straw logs were placed along the top of the subject area to help reduce runoff erosional effects.

- Area 5 – Located at N41° 29.889/W88° 06.947'. This was an area of sheet wash which had eroded most of the cover and had exposed ash/slag along the side of the bank. The area of ash exposure was about 50' wide and extended from the top of the slope to the river water interface. The slope was fairly steep at this location.

Repair: The area was graded and clayey top soil and seed with a mix of all purpose seed and annual rye was placed. Due to the steepness of the slope, the area was covered with a properly anchored, specialty three-layer netting structure

that firmly helps secure and promote vegetal growth along slopes. The matting configuration includes a layer of 100% coconut matrix material. The underlying seed will germinate and grow directly through the blanket. The length of the blanket extended to beyond the area of exposure. The top of the blanket was additionally anchored into a small excavated trench to preclude underwashing. The top of the area was then lined with rip-rap to help disperse and reduce sheet runoff effects.

- Area 6 is located within the fenced boundary of the Joliet #29 facility. The area consisted of exposed ash erosional features identified for repair description purposes as Area 6a and 6b which are separated by about 50' of stable side slope and vegetal cover.

Repair: The repairs in Areas 6a and 6b were basically the same as defined above for Area 5. However, some additional exposed ash identified along the top of the bank, along the service road, was also covered with top soil, seeded and covered with a green wood-fiber erosion blanket.

Photodocumentation of the repair work is provided in Attachment 1. KPRG appreciates the continued opportunity for providing our technical services to the Midwest Generation Joliet facility. If there are any questions, please contact me at 262-781-0475.

Sincerely,  
KPRG and Associates, Inc.



Richard R. Gnat, P.G.  
Principal

**ATTACHMENT 1**  
**Photodocumentation**



Photo 1 – Area 1, before any work was conducted. View is from the east.



Photo 2 – Area 2, after repair work was completed. View is from the west.



Photo 3 – Area 2, before any work was conducted. View is from the south.

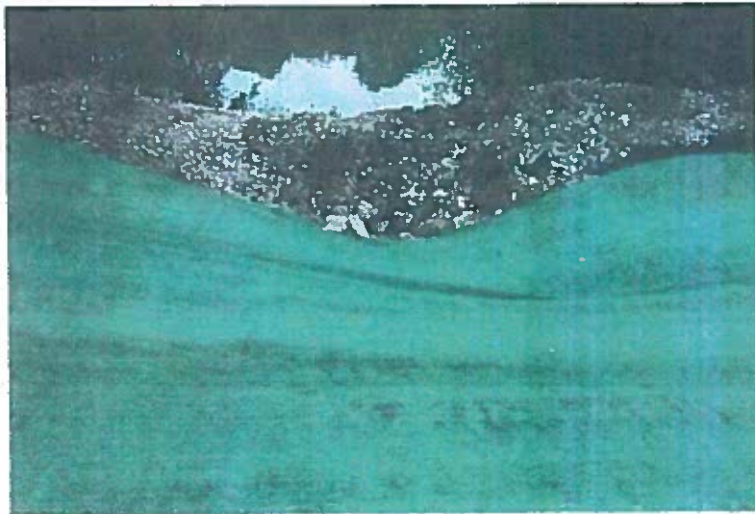


Photo 4 – Area 2, after repair work was completed. View is from the north.





Photo 5 – Area 3, before any work was conducted. View is from the south.



Photo 6 – Area 3, after repair work was completed. View is from the northwest.



Photo 7 - Area 4, before any work was conducted. View is from the northwest.



Photo 8 - Area 4, after repair work was completed. View is from the southwest.





Photo 9 – Area 5, before any work was conducted. View is from the northwest.



Photo 10 – Area 5, after repair work was completed. View is from the southeast.



Photo 11 - Area 6A, before any work was conducted. View is from the east.



Photo 12 - Area 6A, after repair work was completed. View is from the east.



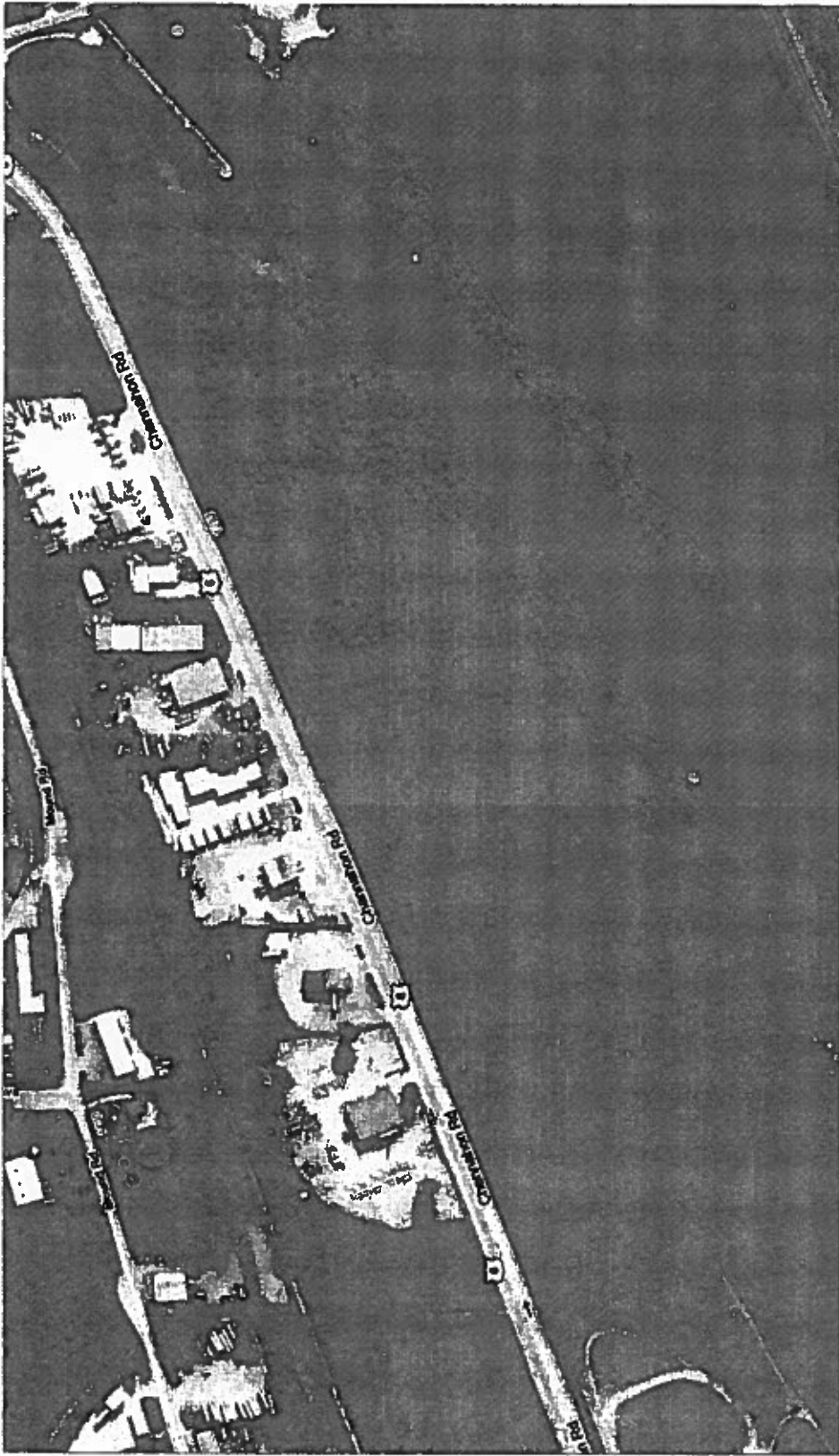


Photo 13 - Area 6B, before any work was conducted. View is from the west.



Photo 12 - Area 6B, after repair work was completed. View is from the west.

Google maps



1" = 360'