

January 16, 2017

Xcel Energy, Inc.
Sherburne County Generating Station
13999 Industrial Blvd.
Becker, MN, 55308

## Re: 2016 Annual Inspection of Unit 3 Landfill

The Unit 3 Landfill (landfill) inspection was conducted on November 8<sup>th</sup>, 2016 by Daniel J. Riggs, a professional engineer licensed in the State of Minnesota. This was the second inspection done in accordance with the EPA's published Coal Combustion Residual (CCR) Rules under section 257.84. Inspections prior to 2015 were conducted by the Minnesota Pollution Control Agency (MPCA).

The following items were evaluated as a part of the Section 257.84 Inspection:

i) Any changes in geometry of the structure since the previous annual inspection

Annual topographic surveys have been conducted on the landfill since initial construction. During that time, no changes in landfill geometry or embankment alignment have been observed.

ii) The approximate volume of CCR contained in the unit at the time of the inspection

There was approximately 6.9 Million Cubic Yards of CCR in the landfill at the time of inspection.

iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit

The landfill was inspected for structural weakness by walking a traverse at the base and top of the embankment. There were no signs that structural weakness had previously or is presently occurring on the landfill.

The active area sump panel controls and riser access panels were opened to verify that the leachate management system is functioning properly. There are no conditions disrupting the operation or safety of the CCR unit.

iv) Any other changes(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection

The CCR placed in the landfill is a lime-stabilized, Type C fly-ash with pozzolanic properties. This creates a structurally stable fill that is not subject to settlement or shifting once placed and compacted.

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I have reviewed the CCR Unit Design, Construction information and weekly/monthly inspections performed by qualified personnel and concur with their conclusions.

Sincerely, Daniel J. Riggs, PE

License No. 49559 Senior Engineer

Carlson McCain, Inc.

**Unit 3 Landfill Annual Inspection – November 2016** 



Open portion of landfill, looking northwest



Photo 2 Final cover along east side of landfill. Leachate run-off containment flap can be seen in the foreground. Looking north

**Unit 3 Landfill Annual Inspection – November 2016** 



Photo 3 Stormwater control system inlet along east side of final cover, looking east.



Photo 4

10/19/2015

Run-on/run-off containment berm along south side of open area

**Unit 3 Landfill Annual Inspection – November 2016** 



**Unit 3 Landfill Annual Inspection – November 2016** 



Run-on/run-off containment berm along west side of landfill, looking south



Access road on top of north embankment, looking east

**Unit 3 Landfill Annual Inspection – November 2016** 



