January 4, 2021

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

Re: 2020 Annual Inspection of Unit 3 Landfill

The Unit 3 Landfill (landfill) inspection was conducted on November 19th, 2020 by Daniel J. Riggs, a professional engineer licensed in the State of Minnesota. This was the sixth 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 7.6 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.

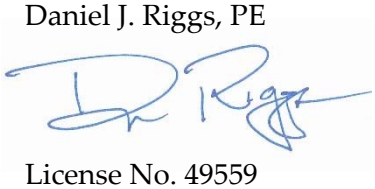
The active area sump panel controls and riser access panels were opened to verify that the leachate management system is functioning properly. There are no conditions disrupting the operation or safety of the CCR unit.

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.

I have reviewed the CCR Unit Design and Construction information and have observed no deviations from those documents.

Sincerely,
Daniel J. Riggs, PE



License No. 49559
Senior Engineer
Carlson McCain, Inc.

12/30/2020

P:\Projects\XCEL\3404-01 Sherco Ash Management\CCR Assistance\Annual Inspections\Nov 2020 Inspection\figures\Figure 1 - U3LF photos.dgn

CELL 2C SUMP RISER ACCESS

6,7,8

9

INTERMEDIATE COVER AREA

PERIMETER FENCE

CCR UNIT IDENTIFICATION MARKER PLACED IN ACCORDANCE WITH SECTION 257.73

11

10

4

EXTERIOR CELL BOUNDARY (WASTE LIMIT)

3

CELL 3 WEST BERM FINAL COVER PROJECT

CELL 3

INTERIOR CELL BOUNDARY

5

CELL 2C

GEOMEMBRANE CCR CONTACT-WATER DIVERSION BERM

CELL 2B

2

LIMITS OF FINAL COVER FOLLOWING 2019 CONSTRUCTION

2019 FINAL COVER AREA

12

1

CELL 2A

CLOSED PORTION OF THE LANDFILL

0 100 200

SCALE IN FEET

N

NOTE: AERIAL PHOTO FROM SHERBURNE COUNTY, 2020

CARLSON McCAIN

FIGURE 1

UNIT 3 LANDFILL 2020 ANNUAL INSPECTION

PHOTO LOCATIONS

Unit 3 Landfill Annual Inspection - 2020

Photo 1 11/19/2020	Left: excavation of future landfill cell. Right: existing final cover and active cell, looking northwest.

Photo 2 11/19/2020	Run-on/run-off contaiment berm in foreground, looking southwest. Future cell excavation area in background.

Photo 3 11/19/2020	Active area of the landfill, looking north. Northeast leachate run-off containment berm in background.

Photo 4 11/19/2020	Active area of the landfill (right embankment covered with intermediate cover), looking west.

Photo 5 11/19/2020	Active area of landfill, looking west.

Photo 6 11/19/2020	Foreground: Pumphouse and control panel. Background: Exterior north berm and final cover, looking south east.

Photo 7 11/19/2020	Display screen on properly functioning Pump No. 1.

Photo 8 11/19/2020	Display screen on properly functioning Pump No. 2.

Photo 9 11/19/2020	Exterior berm along the north side of the landfill, looking west.

Photo 10 11/19/2020	Left: Intermediate Cover. Right: Active area of landfill, looking east.

Photo 11 11/19/2020	Left: Active area of landfill. Center: Interior of west berm, looking south.

Photo 12 11/19/2020	Left: Active area of landfill. Center: Southern berm, looking east.