Initial Run-on and Run-off Control System Plan
Unit 3 Landfill
Sherburne County Generating Plant

Introduction

This plan presents the run-on and run-off control system plan for the Unit 3 Landfill at the Sherburne County Generating Plant (Sherco) in Becker, Minnesota. The landfill is an existing coal combustion residual (CCR) landfill. This document addresses the requirements of 40 CFR §257.81.

According to the National Oceanic and Atmospheric Administration, a 25-year, 24-hour storm event yields 5.08 inches of rainfall for the geographic location of Sherco.

§257.81(a)(1) Run-On Control System

The landfill is constructed with perimeter berms along the north, west and south sides, and final cover berms along the east side. The surrounding topography is flat and sandy. Closed portions of the landfill utilize stormwater diversion berms, downslope structures, and downslope pipes to capture stormwater and convey it off the final cover to stormwater basins located beyond the waste boundary. The height of the perimeter berms, final cover, and grade of the surrounding area prevents flow onto the active portion of the unit during the peak discharge from a 24-hour, 25-year storm event.

§257.81(a)(2) Run-off Control System

The active portion of the landfill is approximately 43.1 acres. All run-off and direct rainfall from the active portion of the landfill is contained within the lined area.

A 25-year, 24-hour storm event of 5.08 inches would result in 18.25 acre-feet of water over the footprint of the open landfill area as detailed in the calculation below:

(5.08 inches)/(12 inches per foot)*(43.1 acres) = 18.25 acre-feet.

As of the most recent landfill topographic survey, October 2015, there is 72.5 acre-feet of run-off storage volume within the active portion of the landfill. Details of the Run-on and Run-off control system can be found on the attached figure.

§257.81(c)(2) Amendment of Run-off and Run-off Control Plan

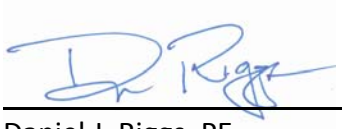
If any event or change substantially affects the plan, a modified Run-on Run-off Control Plan will be prepared and included in the facility's operating record and posted to the CCR website.

§257.81(c)(4) Frequency for Revising the Plan

At a minimum, the Run-on Run-off Control Plan will be reviewed and updated every five years following this initial plan.

§257.81(c)(5) Certification

I hereby certify under penalty of law that this report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



October 17, 2016
Date

Daniel J. Riggs, PE
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References

National Oceanic and Atmospheric Administration, Atlas 14, Volume 8, Version 2, “Point Precipitation Frequency Estimates”, Becker, Minnesota.

9/29/2016

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ACTIVE AREA (43.1 ACRES)

PONDING AREAS

0 200

SCALE IN FEET

N

PONDING AREA

RUN-OFF CONTAINMENT BERM ALONG FINAL COVER

CULVERT

PONDING AREA

F-COV

Carlson McCain

ENVIRONMENTAL - ENGINEERING - SURVEYING

RUN-ON AND RUN-OFF CONTROL PLAN

UNIT 3 LANDFILL

10/1/2016