



Closure Plan

Slag Pond

Otter Tail Power Company - Big Stone Plant

Introduction

This Closure Plan (Plan) has been written for the Big Stone Plant Slag Pond in accordance with 40 CFR 257. This Plan outlines the requirements, procedure and schedule for clean closure of the Slag Pond.

To comply with the CCR rule monitoring wells have been installed around both the Slag Pond and adjacent temporary storage area to establish a shared groundwater monitoring network. These wells will be used for ongoing groundwater monitoring activities. This plan details closure of the Slag Pond only. The Temporary Storage Area Closure Plan is presented in a separate plan.

Closure Procedures §257.102(b)(1)(i)-(ii)

The Slag Pond is an unlined, incised, CCR surface impoundment approximately 2.1 acres in size. The Slag Pond will be closed using clean closure techniques in accordance with §257.102(c). CCR will be removed from the Slag Pond using common earthmoving equipment and will be beneficially used or disposed of in the Ash Disposal Facility.

A qualified third-party will visually inspect the Slag Pond to ensure all CCR has been removed. Groundwater monitoring will continue until constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit are below the groundwater protection standard established pursuant to §257.95(h) for constituents listed in appendix IV to Part 257. At that point closure of the Slag Pond will be deemed complete.

Once clean closure is complete, the Slag Pond may still be used for non-CCR activities such as stormwater runoff. No final cover system will be installed.

Quantity of Ash §257.102(b)(1)(iv)-(v)

The Slag Pond is periodically excavated to restore capacity. Approximately 80,000 cubic yards of CCR is produced per year. This is estimated to be the largest volume of slag present at any one time. The Slag Pond is approximately 2.1 acres and the entire area will be subject to closure requirements.

Closure Schedule §257.102(b)(1)(vi)

It is assumed that the Slag Pond will be in use for the life of the generating facility. If plant operations change such that the Slag Pond is no longer needed, or there are significant environmental impacts, closure of the Slag Pond will commence.

The owner or operator of the CCR unit will commence closure activities no later than 30 days after the last known receipt of waste or removing the last amount of CCR from the unit for beneficial use in accordance with §257.102(e)(1)(i). Completion of closure activities will occur as specified in §257.102(f)(i). See Figure 1 for more details of closure.

Notification of Closure §257.102(g)

The South Dakota Department of Environment and Natural Resources (DENR) will be notified 90 days prior to final closure. A notification of intent (NOI) will be placed in the facility's operating record and CCR website as required by §257.107(i). The estimated timeframe for closure of the Slag Pond is presented in Figure 1, and is subject to change.

Certification of Final Closure §257.102(h)

Upon completion of closure activities a documentation report will be prepared that states the unit has been closed in accordance with §257.102(c) and §257.107(i). The report will be signed by an authorized officer of Otter Tail Power Company and a professional engineer licensed in South Dakota, then submitted to the DENR, placed in the facility's operating record, and posted on the CCR website within 30 days of completion of closure. The report will contain record drawings, testing data and a description of the construction process with photographs.

Deed Notation §257.102(i)(4)


A deed notation is not required as the unit will be closed by removal.

Amendment of Final Closure Plan §257.102(b)(3)

If any event or change affects the plan, an amended Closure Plan will be prepared and submitted to the DENR, placed in the facility's operating record, and posted on the CCR website. This applies to any change in the Operations and Maintenance Plan, facility design, or estimated year of closure. At a minimum, the Closure Plan will be reviewed and updated, if necessary, every two years beginning with this version of the Closure Plan.

Certification §257.102(b)(4)

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.



John McCain, PE
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Date



FIGURE 1 – SLAG POND CLOSURE SCHEDULE

