AECOM

Legacy CCR Surface Impoundment Applicability Report

Morrow Hydroelectric Project
Morrow CCR Impoundment
STS Hydropower, LLC

40 CFR 257.100 (f)

November 8, 2024

Version: 1.0

1. Background

The 2015 Coal Combustion Residuals Rule (CCR Rule, effective date of October 19, 2015) and the 2024 Legacy CCR Rule (Legacy CCR Rule, effective date of November 8, 2024) were both promulgated by the U.S. Environmental Protection Agency to regulate the safe management and disposal of coal combustion residuals (CCRs) at electric generating utilities and independent power producers. The CCR rules collectively require utilities and independent power producers to determine if CCR units are present on their properties, develop documents and plans to safely manage CCR disposal onsite, perform groundwater monitoring to monitor groundwater conditions in relation to standards protective of the environment, and to close CCR units that do not meet groundwater standards or that no longer receive CCR materials for disposal.

The Legacy CCR Rule at Part 40 of the Code of Federal Regulations, Section 257.100(f)(1) regulates legacy CCR surface impoundments and requires owners and operators to prepare an applicability report for each CCR surface impoundment at their facility. The applicability report must contain the information as described in the following sections of this Legacy CCR Surface Impoundment Applicability Report.

2. Identification Information

The name and address of the person(s) owning and operating the legacy CCR surface impoundment:

STS Hydropower, LLC
2 Bethesda Metro Center, Suite 1330
Bethesda, MD 20814

(240) 482-2700
info@eaglecreekre.com

The name associated with the legacy CCR surface impoundment:

Morrow CCR Impoundment

Identification number of the legacy CCR surface impoundment if one has been assigned by the state:

State ID Number: MID051763696 (Note: the ID number listed may only refer to the overall site and may not apply to the CCR surface impoundment located at the site.)

3. Location of Legacy CCR Surface Impoundment

Information to identify the CCR surface impoundment is included in Attachment A to this Applicability Report. The figure illustrates where the unit is located at the facility, facility address, and the latitude and longitude of the facility.

4. Current Site Conditions

The Legacy CCR Rule requires the Applicability Report to describe the current site conditions, specifically including the information contained in the following sections.

4.1 Current Use of the Inactive Facility

The impoundment originally functioned as a coal ash disposal facility for the adjacent Morrow Power Plant which was owned and operated by Consumers Power for the duration of its operating history. Both the plant and the impoundment have remained inactive since the cessation of power generation at the plant in 1982. STS Hydropower, LLC stated that they acquired approximately 56 acres of the impoundment as part of a hydroelectric project land acquisition circa 1983.

4.2 Start & End Dates of Operations

The Morrow Power Plant began operations in November 1939 and halted power generation when the plant shutdown in July 1982 according to a local news article published in *The Argus* on December 21, 1983.

4.3 Size of the Facility Property Containing the Impoundment

The impoundment is located on the hydroelectric project property now owned by STS Hydropower, LLC, which has an overall area of approximately 1,400 acres.

4.4 Visual Description of the Impoundment

Ponded Water
The open water portion of the impoundment covers approximately 10 acres.

Approximate Size
The approximate 61-acre impoundment itself is split between open water, marshy areas, and woodlands that divide the impoundment footprint into approximately 10-acres, 14-acres, and 37-acres respectively. STS Hydropower, LLC owns approximately 56 acres of the impoundment. Approximately five acres of the impoundment are owned by others.

Vegetation
According to the National Wetlands Inventory and the Michigan Natural Features Inventory, the vegetation of the impoundment is characterized by freshwater emergent wetland plant species (e.g. water plantains, sedges, bulrushes, cat-tails, etc.) as well as freshwater forested/shrub wetland plant species (e.g. silver maple, green ash, swamp white oak, dogwood, etc.).

Incised/Bermed

The impoundment containment is comprised of a raised dike and berm around the entire perimeter; the northern and eastern sections of the dike border Morrow Lake, while the berm on the southern and western sides runs through forested areas. The crest of the dike adjacent to Morrow Lake is approximately 20 ft wide with up to two-foot diameter limestone riprap armoring and has a gravel access road along the crest. The earthen berm along the remaining perimeter is between two and six feet above the surrounding native land with an improved road along the crest.

4.5 Adjacent Geologic/Hydrogeologic Features

According to the 1977 soil survey conducted for Kalamazoo County by the United States Department of Agriculture Soil Conservation Service, the native soils underneath and adjacent to the impoundment are generally considered to be layers of poorly drained, sandy loam interspersed with layers of peat and/or muck. Permeability of these soils is moderately low with a water table that is at or near the surface.

4.6 Other Relevant Information About the Facility

As reported in a November 10, 1939 news article published by *The Climax Cresent*, the Morrow Power Plant was originally a coal-fired plant capable of consuming approximately 200,000 tons of coal per year when it began operations in 1939. *The Argus* article from December 21, 1983 reported that in 1969 the plant was converted to burn natural gas, in 1971 it was converted again to burn oil, two of its four turbines were shut down in 1979, and in 1981 it was converted back to burning natural gas until it ceased operations in 1982. The Morrow CCR Impoundment is located just south of the currently operating Morrow Dam hydroelectric generating station that was originally commissioned in 1985.

5. Owner, Operator, or Authorized Representative Certification

The owner or operator of any facility regulated under this subpart must certify the applicability report required by paragraph (f)(1)(i) of this section (Section 257.100 of the CCR Legacy Rule) with the following statement signed by the owner or operator or an authorized representative:

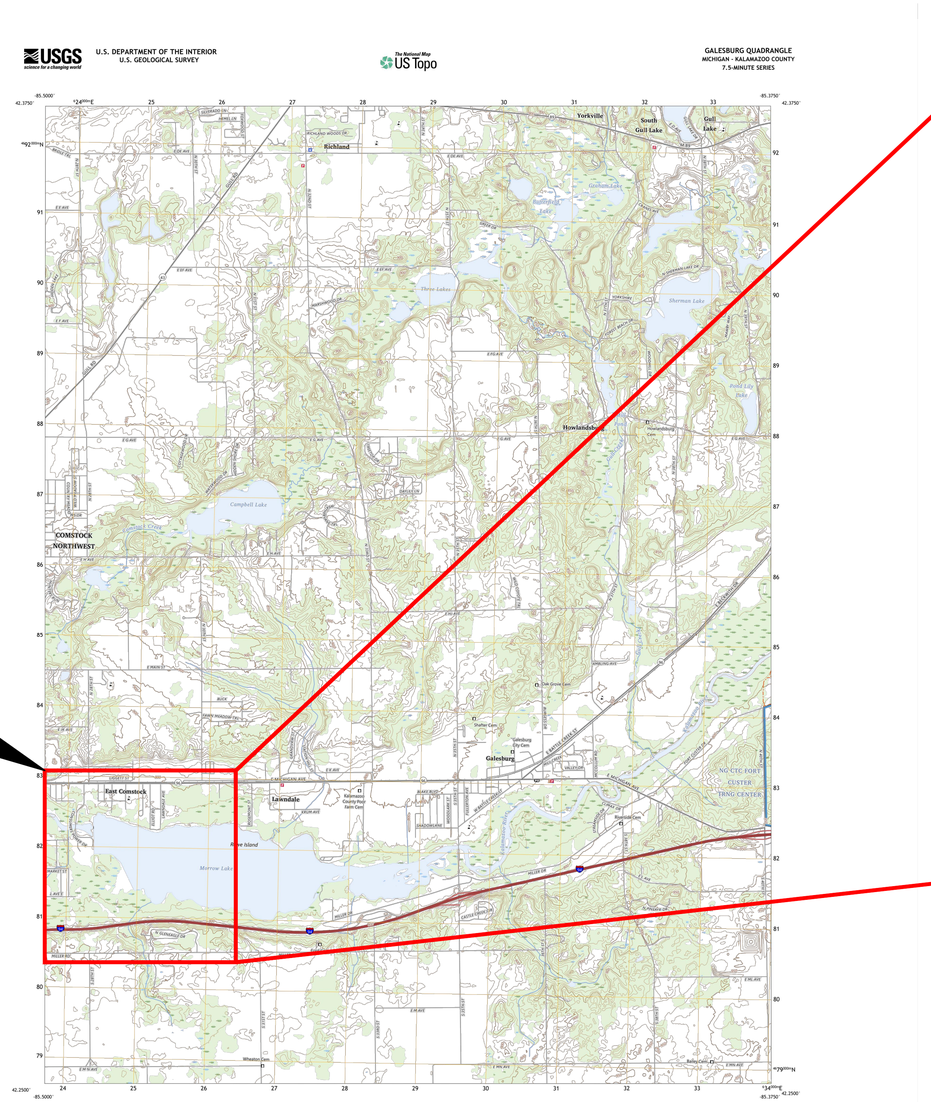
> "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Jody Smet

Jody Smet
Senior Vice President, Regulatory Affairs and Compliance

Attachment A

ATTACHMENT A - MORROW HYDROELECTRIC PROJECT
MORROW CCR IMPOUNDMENT



NAME OF UNIT: MORROW CCR IMPOUNDMENT
NAME OF FACILITY: MORROW HYDROELECTRIC PROJECT
FACILITY ADDRESS: 6900 E MICHIGAN AVE, COMSTOCK TOWNSHIP, MI 44084
LATITUDE: 42°16'35" N LONGITUDE: 85°29'20" W

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PERMITTEE/OPERATOR

STS HYDROPOWER, LLC

MORROW CCR IMPOUNDMENT
6900 E Michigan Ave
Comstock Township, MI 44084

OWNER

STS HYDROPOWER, LLC

2 Besthesda Metro Center, Suite 1330
Bethesda, MD 20814
240.482.2700 tel
http:///www.eaglecreekre.com

ENGINEER

AECOM
1300 East 9th Street, Suite 500
Cleveland, OH 44114
216.622.2300 tel
www.aecom.com

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

AECOM PROJECT NO:	60738676
DRAWN BY:	JET
DESIGNED BY:	JET
CHECKED BY:	QVK
PLOT DATE:	11/5/2024
SCALE:	NOTED
AUTOCAD VER:	2018

PROJECT NUMBER

60738676

SHEET TITLE

ATTACHMENT A

SHEET NUMBER

Project Management Initials: Designer: JET Checked: QVK Approved:QVK ARCH D 24" x 36"
Last saved by: JARED.TAYLOR(2024-11-05) Last Plotted: 2024-11-05
Filename: C:\USERS\JARED.TAYLOR\ONEDRIVE - AECOM\GENERAL - STS MORROW HYDROELECTRIC PROJE\900_CAD_GIS\910_CAD\25_FIGURES\ATTACHMENT A_APPLICABILITY REPORT.DWG