



BLACKBROOK FERC PROJECT #2894

CONSTRUCTION AND KEY DATES

Owner..... Flambeau Hydro, LLC
 Date of Purchase.....2001
 Date Originally Built..... 1917
 Online Date.....1982
 License Effective Date.....January 22, 1980
 License Expiration Date.....December 1, 2020

HYDROLOGIC DATA

River.....Apple River
 County.....Polk County, WI
 Nearest City.....Amery
 Drainage Area Square Miles.....162
 Reservoir Acres.....98
 Storage Volume Acre Feet.....1220
 100-Year Flood CFS.....1640 CFS
 500-Year Flood CFS.....2040 CFS

OPERATIONAL DATA

Normal Headwater Elevation.....1042.50
 Minimum Headwater Elevation.....1041.94
 Maximum Headwater Elevation.....1043.07
 Normal Operating Head.....24'
 Number of Units.....2
 Maximum Generating Capacity.....650 KW
 Annual Generation.....2.1 GWH
 Maximum Turbine Discharge CFS.....392 CFS
 Spillway Capacity CFS.....4500 CFS
 Hazard Rating.....Low

STRUCTURAL DATA

Dam Type.....Gravity Dam
 Overall Length and Height.....131' Long x 32' High
 Power Canal.....N/A
 Penstock.....N/A
 Spillway Description.....26' Overflow and 3 - 12' Tainter

PLANT DATA

Turbine Manufacturer.....The James Leffel and Co.
 Turbine Identification:
 Unit #1.....Leffel 24" Type Z
 Unit #2.....Leffel 33" Type Z

Turbine CFS @ 100% Gate:
 Unit #1.....144 CFS
 Unit #2.....248 CFS

Generator Identification:
 Unit #1.....Westinghouse
 Unit #2.....Electric Machinery

Generator Nameplate Rating KVA:
 Unit #1.....327 KVA
 Unit #2.....485 KVA

Generator Horsepower:
 Unit #1.....350
 Unit #2.....520

Generator Speed RPM:
 Unit #1.....300 RPM
 Unit #2.....200 RPM

Generator Voltage:
 Unit #1.....2300
 Unit #2.....2400