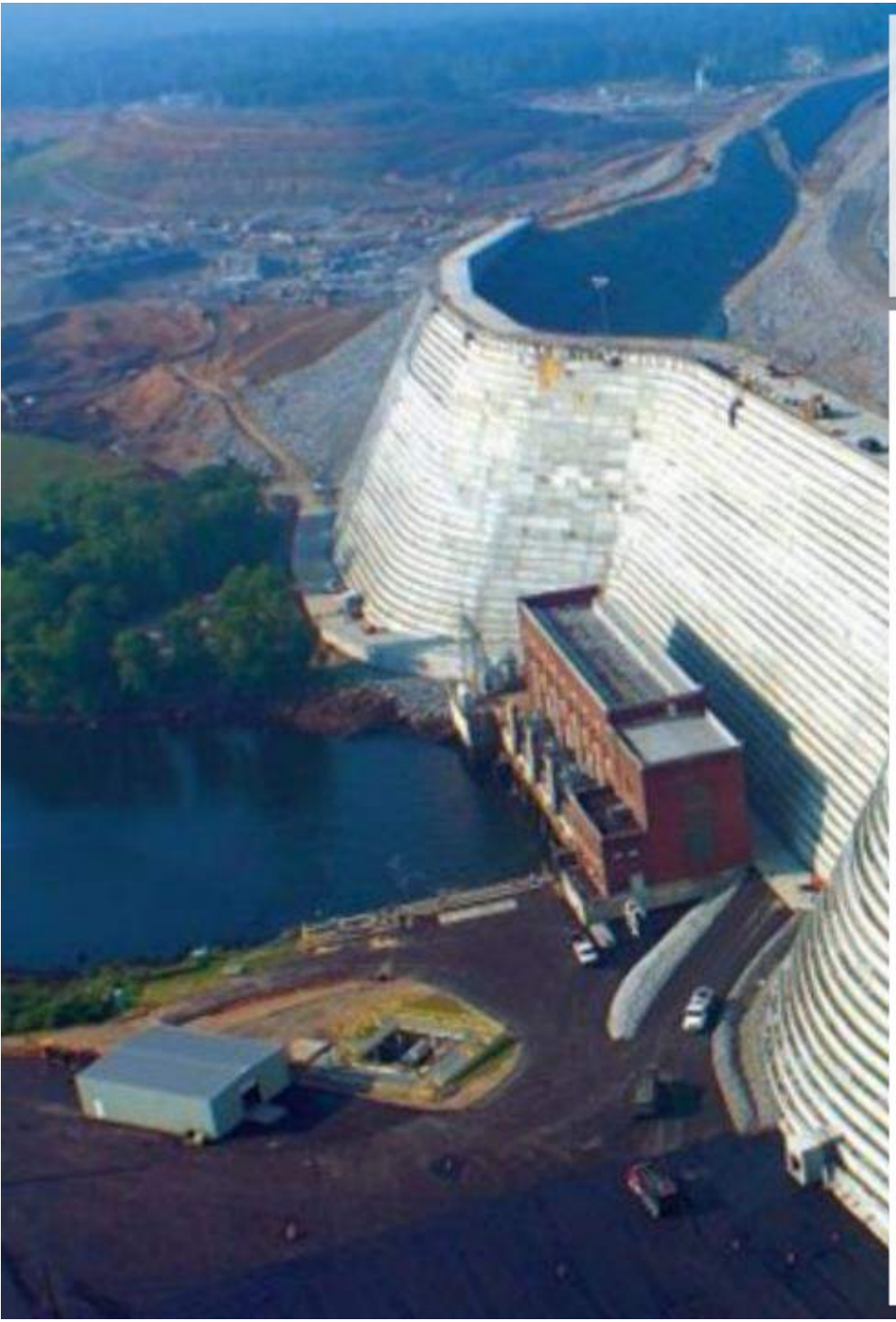


PRESS RELEASE • HYDRO POWER

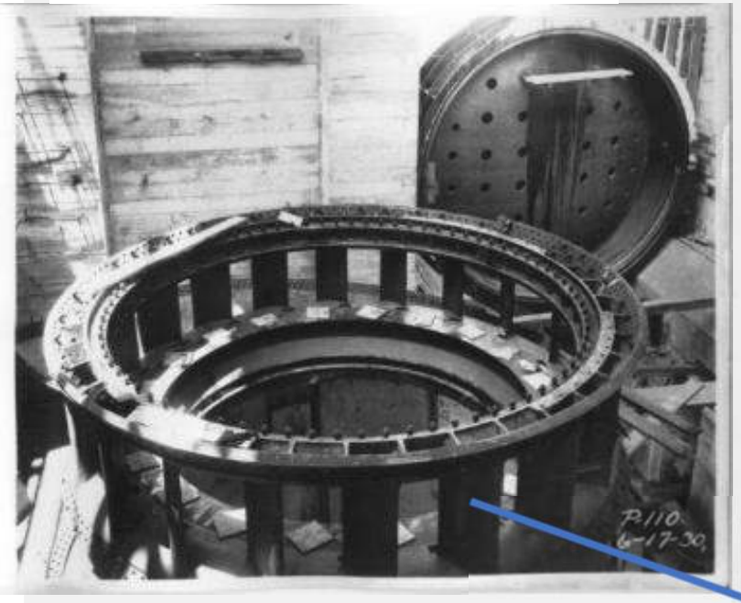
GE Vernova secures order from Dominion Energy for the modernization of Saluda Hydro power plant in South Carolina

GREENVILLE, SC (December 2, 2024) – GE Vernova Inc. (NYSE: GEV) announced today that it has secured an order (3Q'2024) with Dominion Energy South Carolina for the modernization of two hydropower units installed at the Saluda Hydro power plant located on the Saluda River in the Southeastern region of the United States, approximately 10 miles west of the city of Columbia, South Carolina. This modernization project will help extend the lifetime, reliability, performance, and operational flexibility of the power plant that has been generating sustainable and reliable power for almost a century.

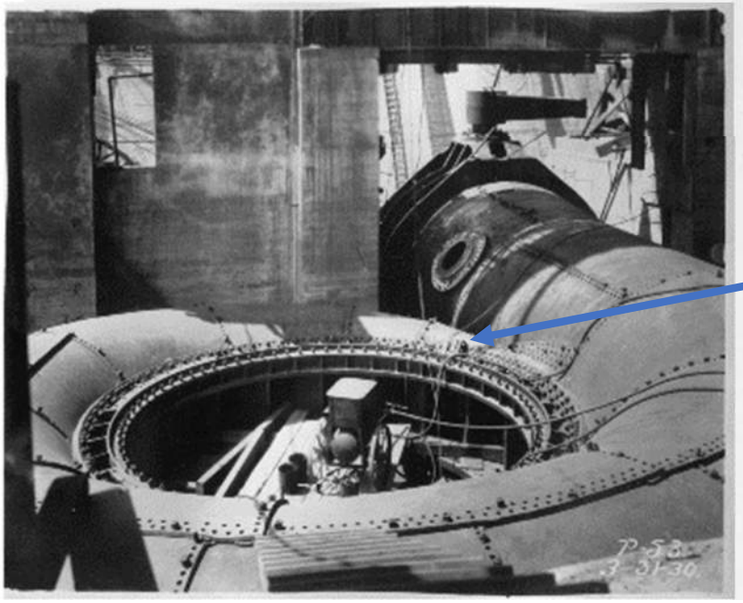
This new collaboration builds on the long-lasting relationship between GE Vernova and Dominion Energy across all three GE Vernova business segments, Power, Wind and Electrification. Currently, around 70% of Dominion Energy's fleet leverages GE Vernova's technology, which can deliver the electricity needed to power the equivalent of more than 7 million households in the US.

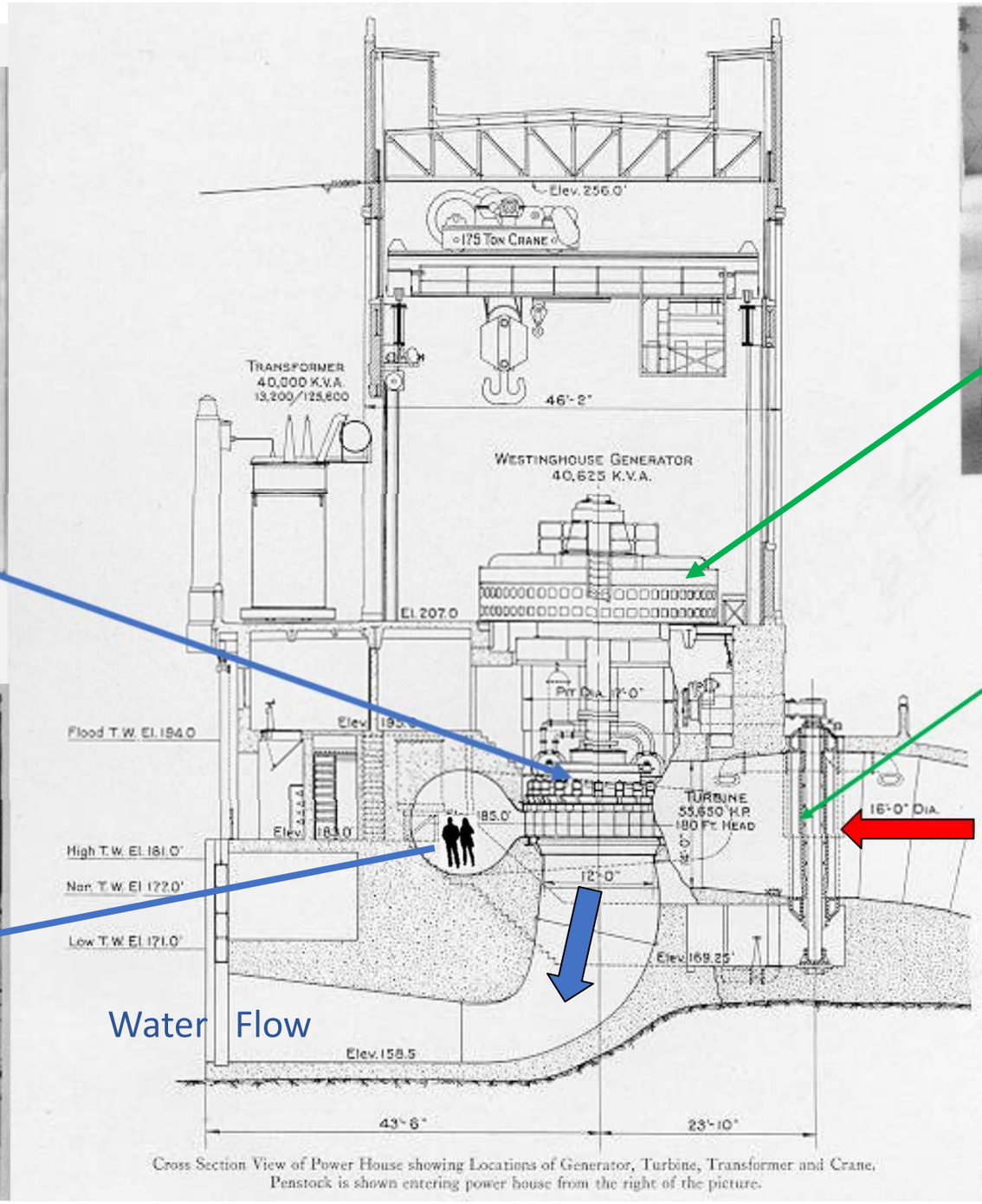
In addition to extending the lifetime and enhancing the performance of the plant, the modernization project will help to better maintain the water quality of the Saluda River by increasing dissolved oxygen (DO) through the implementation of GE Vernova's patented aerating turbine technology. This new equipment oxygenates the water and ensures a minimum level of oxygen, contributing to protect aquatic life and the state's natural resources. Aerating turbines is one of many examples demonstrating how innovations are being applied to an established industry like hydropower.

Turbine Stay Ring

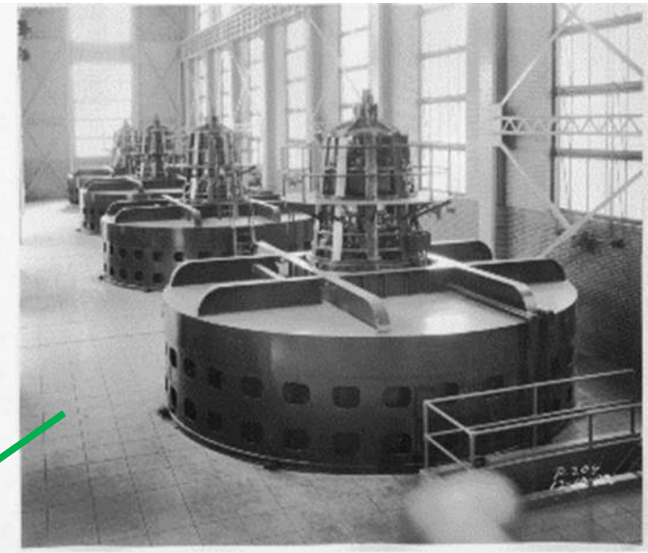


Spiral Case

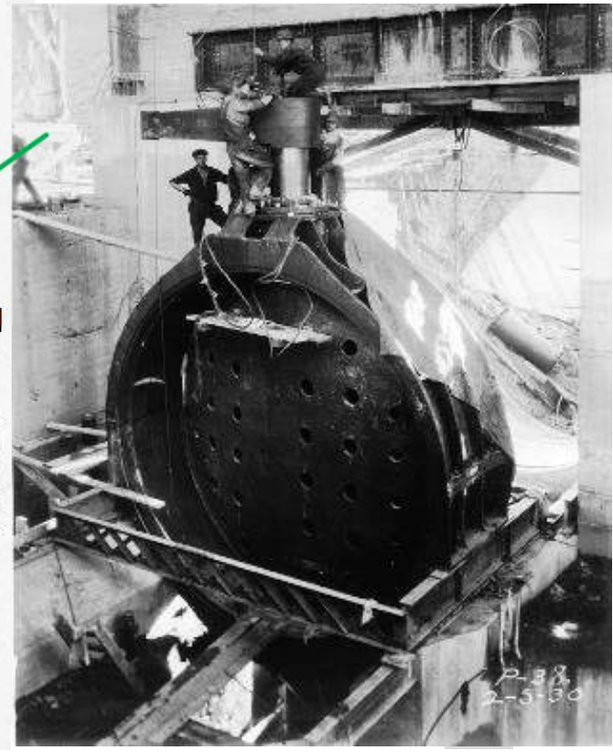




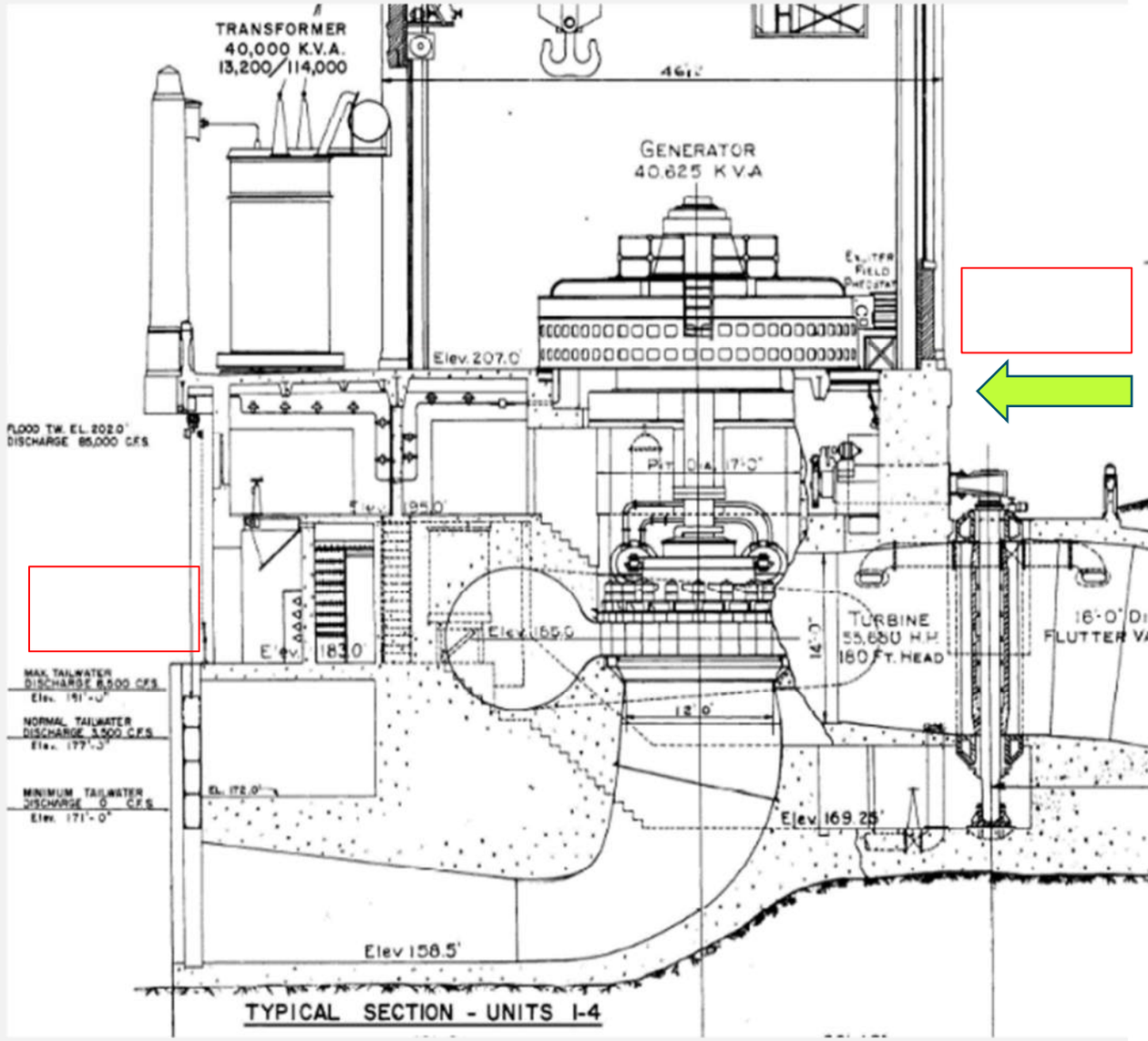
Cross Section View of Power House showing Locations of Generator, Turbine, Transformer and Crane. Penstock is shown entering power house from the right of the picture.



16’ Butterfly Valve

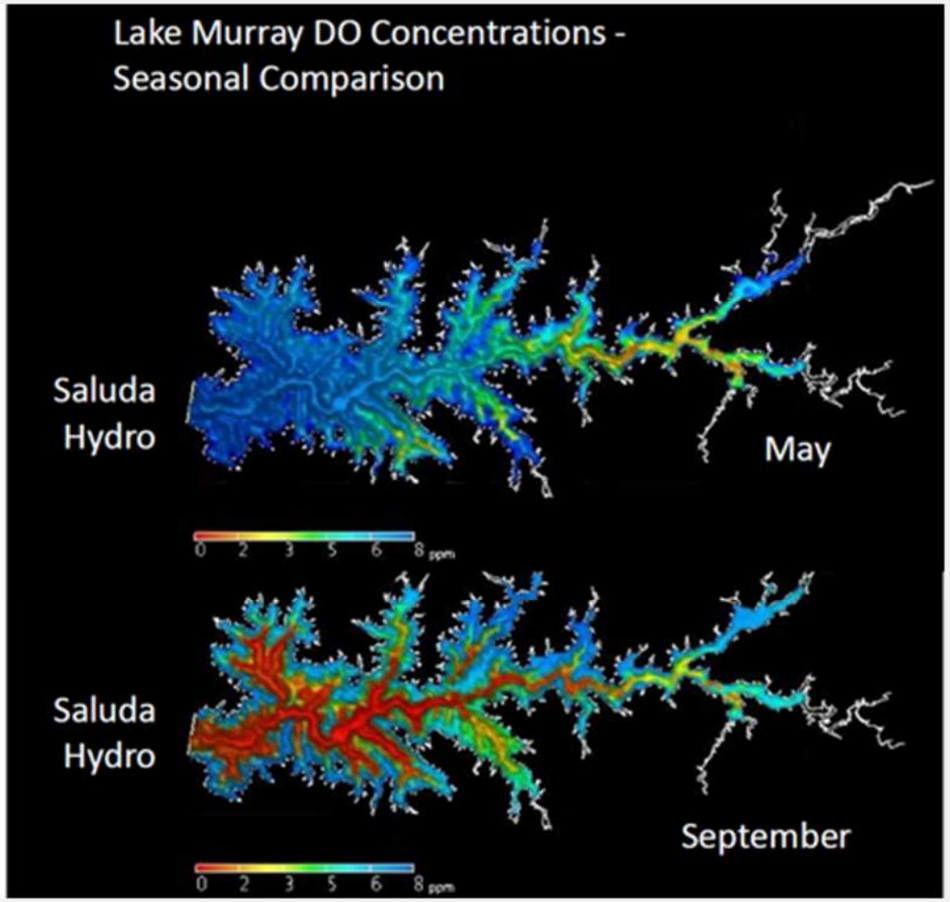


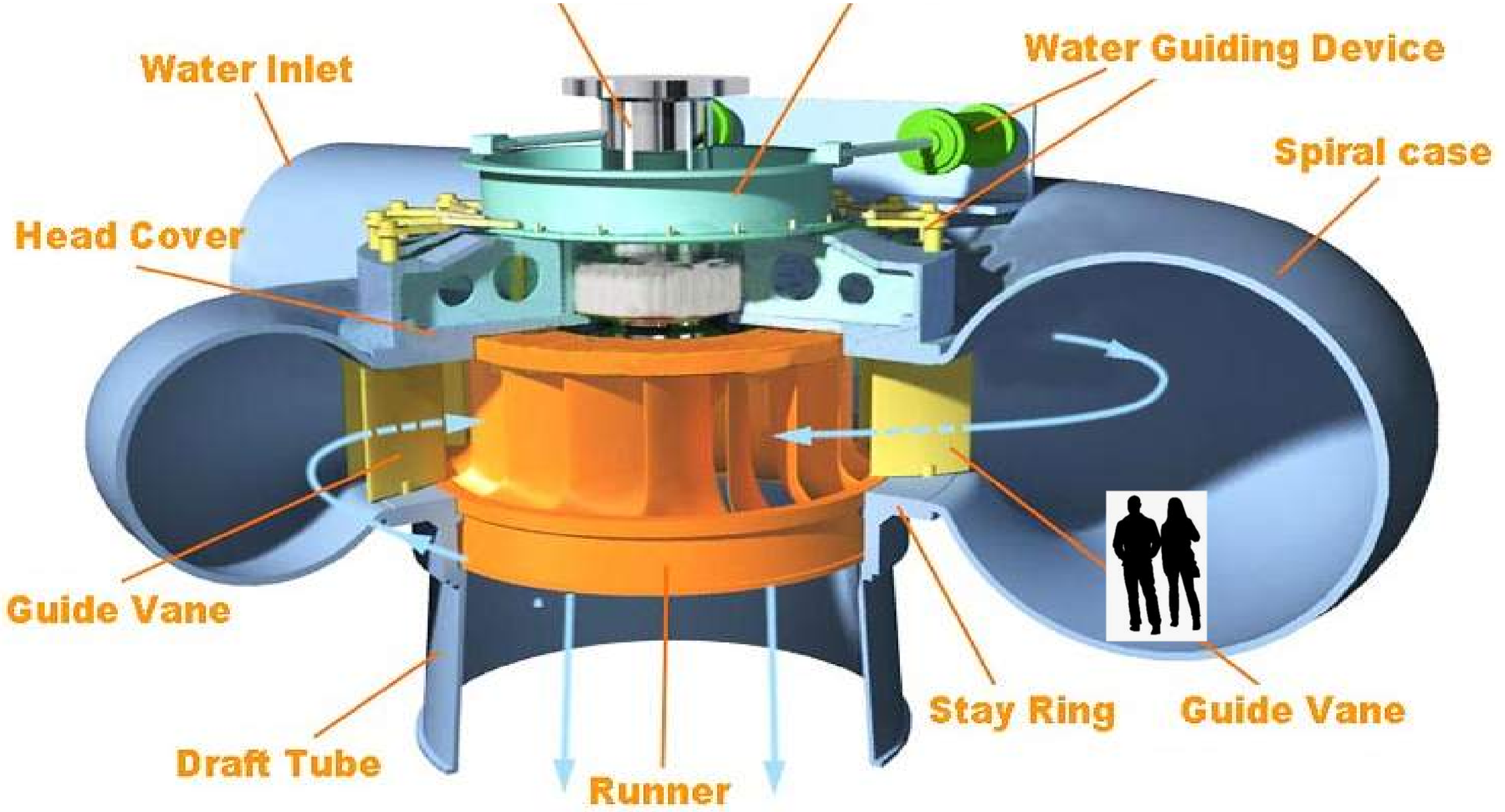
- Design criteria includes meeting these operating criteria:
  - 4.0 mg/L Daily Minimum
  - 5.5 mg/L 30-Day Average
  - Measured at USGS monitoring location
- During hotter months, Lake Murray stratifies and DO concentration at the unit inlets can be at or near 0.0 mg/L
- Aerating runners pull air into the water through the unit. Aeration factors:
  - Inlet DO – Lower inlet DO requires more air input to achieve outlet target
  - Inlet Flow – Higher flows require more air
  - Tailwater Elevation – Higher tailwater reduces the vacuum that pulls the air



Saluda DO Exhibit

- The amount of Oxygen in water, expressed as ppm or mg/L
- Much of the DO comes from the atmosphere. From the surface it is distributed by current and turbulence
- Temperature, pressure and salinity affect the DO capacity of water
- Ratio of DO (ppm) to potential capacity (ppm) gives the percent saturation, an indicator of water quality
- Fish typically require minimum of 3.0 mg/L, while invertebrates require no less than 4.0 mg/L for survival

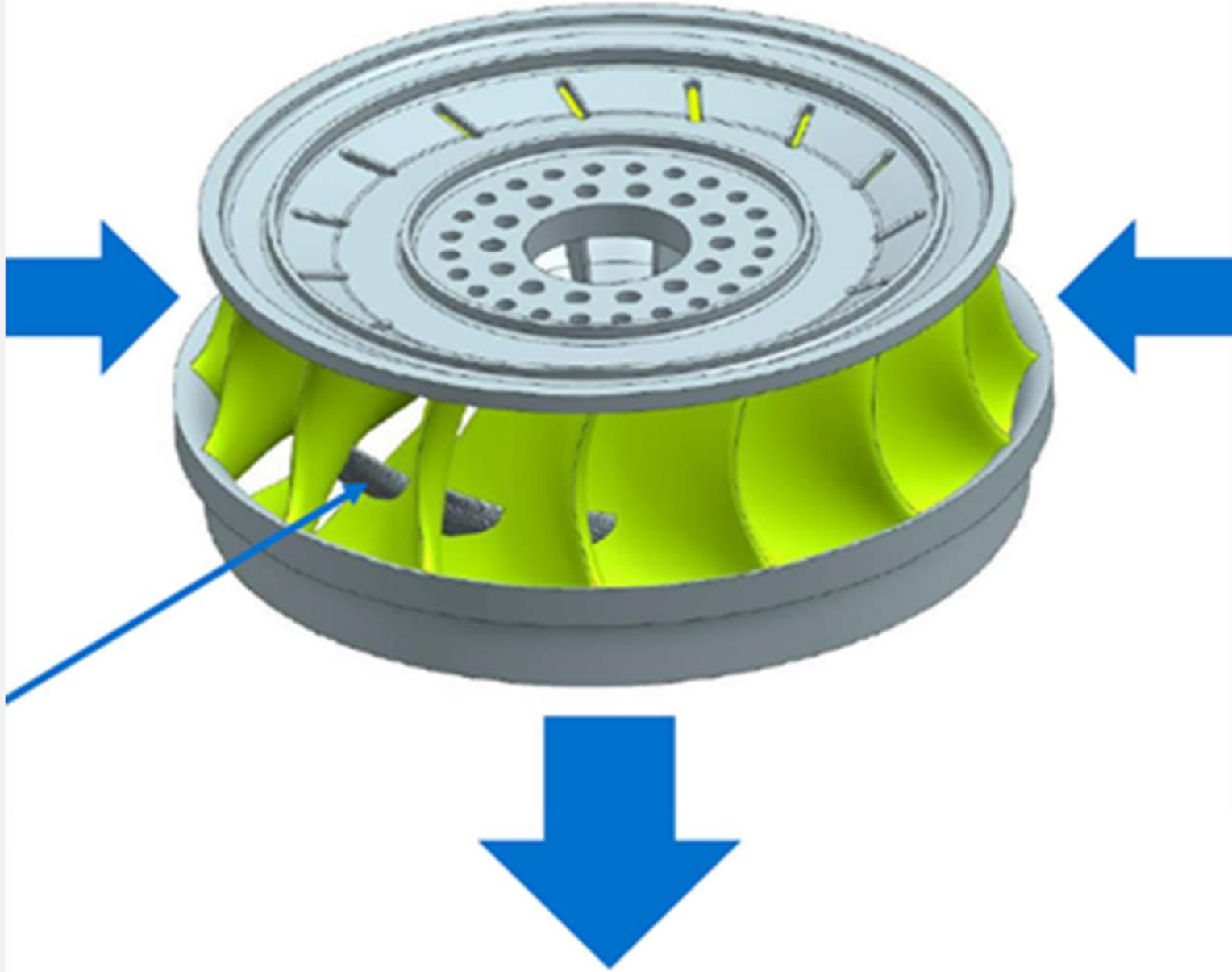




Francis Turbine

GE Turbine

- GE has a patented aerating turbine design that allows air to discharge through slots in an interblade profile that is located between runner blades.



Water Flow out of the Turbine Runner