

STRUCTURE 236

This structure is a three unit pumping station located on the southwest shore of Lake Okeechobee, about 2 miles southeast of Clewiston, Florida. The station consists of both a pumping and outlet unit. The pumping unit is a reinforced concrete structure with a concrete block superstructure and it is on the landside of the Lake Okeechobee Levee LD-2. The pumping station is equipped with three vertical axial flow pumps each rated for 85 c.f.s. at 11.0 foot static head. Each pump is driven by a 325 horsepower diesel engine, which discharges via the outlet structure into the lake. The outlet unit is a U-shaped structure of reinforced concrete sides and bottom.

PURPOSE

This structure provides for drainage previously discharged directly into the lake by local Pumping station No. 5. This local pumping plant cannot operate efficiently with the newly authorized increase in the Lake Okeechobee regulation levels to 19.5-21.5 feet. S-236 pumps surplus water into Lake Okeechobee from the agricultural area generally to the southwest of the structure, in Palm Beach and Hendry Counties. This surplus consists of seepage through the LD-2 Levee and runoff at the rate of 3/4 inch per day from the 10.2 square mile tributary drainage area.

OPERATION

Normally, pumping will be initiated when the headwater reaches 9.7 feet and terminated when it reaches 7.5 feet. In response to heavy rainfall, all pumping units may be placed in operation and the stage lowered to and maintained at 7.5 feet until the storm has passed. After the pump is stopped, the vacuum breaker valve may be opened to permit the water column in the pump to drop to intake pool level and the water in the discharge pipe to drop to the lower of the lake or invert elevation.

This structure is operated and maintained by the South Florida Conservancy District.

FLOOD DISCHARGE CHARACTERISTICS

	Pump Design
Discharge Rate	<u>255</u> cfs
	<u> </u> % SPF
Headwater Elevation	<u>7.5</u> feet
Tailwater Elevation	<u>18.5</u> feet

DESCRIPTION OF PUMPING STATION

Number of Pumps 3

Type of Pumps vertical, axial flow

Design rating 85 cfs each

Impeller speed r.p.m.

Pump manufacturer Peerless Mfd. by Indian Head Co.

Engine Make & Type Cummins Mod. NTA-855-P-400

Engine Horsepower 325 each

Engine Speed 1800 r.p.m.

Gates (per bay)

 Type flap, downstream

 Size 42 inch diameter

 Control None

 Lifting Mechanism None

ACCESS from State Road No. 80 via about 80 ft. of paved access road

POWER SOURCE

Normal commercial electricity

Emergency Diesel engine driven electric generators

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level On-site dual recorder

Gate Position Recorder None