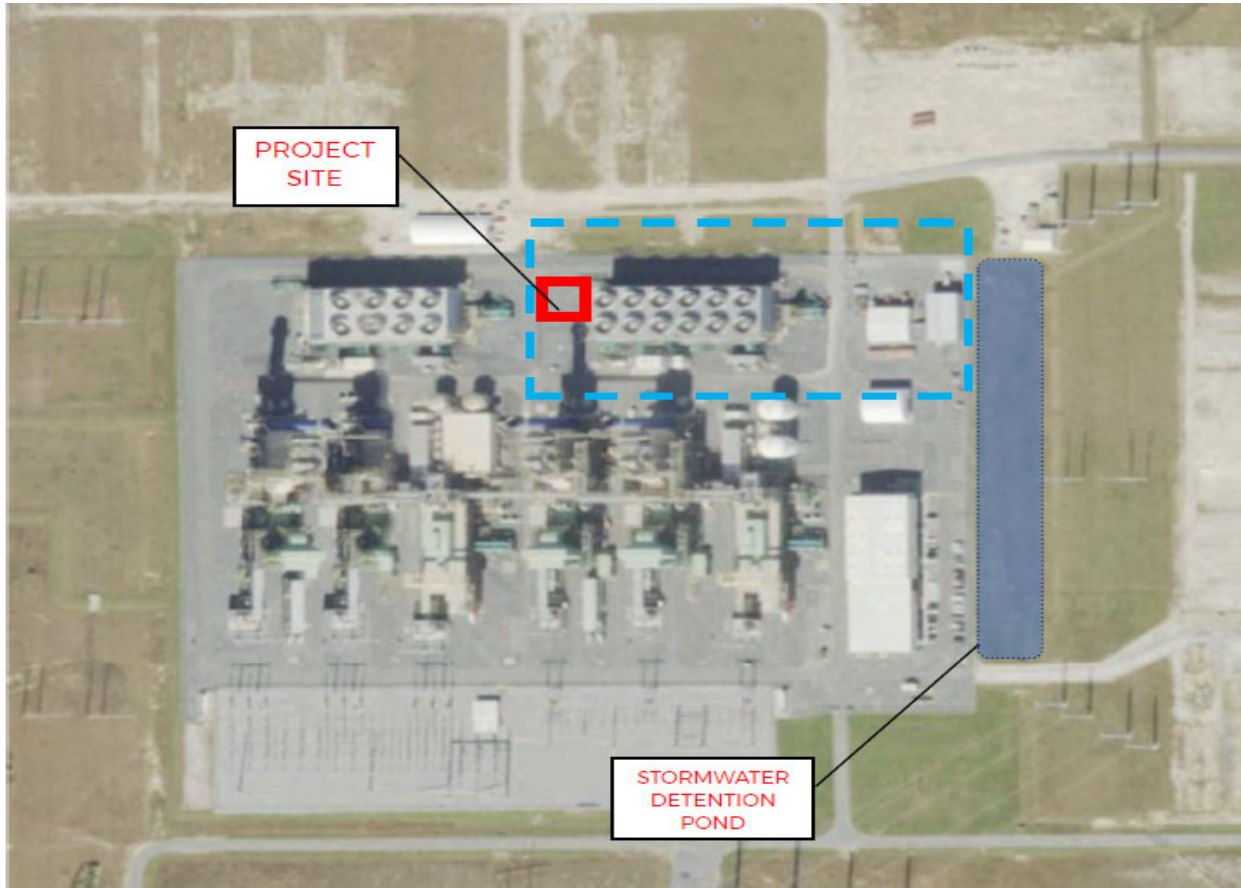


Attachment II

PROJECT DESCRIPTION



FACILITY BACKGROUND

Duke Energy Florida (DEF) owns and operates the Citrus Combined Cycle Station (CCCS) in Crystal River, Florida in Citrus County. CCC is located at 14385 North Access Road.

PROJECT DESCRIPTION

CCCS currently treats groundwater using iron removal filters and reverse osmosis for use in site processes. Backwash from the iron filters is currently discharged to the permitted industrial wastewater percolation pond system. Downgradient compliance monitoring wells have shown increasing concentrations of manganese (Mn) since the commissioning of the iron filters, and investigations by CCCS show that the iron filter backwash is a concentrated Mn source to the percolation ponds.

CCCS is installing an Iron Filter Backwash Reclaim (IFBR) system to address the increasing Mn concentrations in accordance with the Florida Department of Environmental (FDEP) Administrative Order AO-050SWD22. The IFBR system will treat iron filter backwash water and return it to the process water influent stream. This system will eliminate backwash discharge and the associated Mn loading to the percolation pond. The system will also decrease the

overall groundwater withdrawal for process water by reclaiming the water previously discharged with the backwash.

Iron filter backwash will be routed to a 27,300-gallon, mixed tank to equalize the intermittent flows. The equalized backwash will then be pumped at a constant rate to a 12-foot diameter solids-contact clarifier. A polymer flocculant will be added to the backwash as it enters the clarifier to increase solids floc size. The solids floc will settle in the clarifier removing manganese and other solids constituents (iron, etc.) from the backwash water. The clarified backwash water will overflow the clarifier to a 6,350-gallon overflow tank and be pumped back to the iron filter inlet piping. The settled solids in the clarifier will be pumped to a 10-cubic foot filter press for dewatering. The dewatered solids will be transported to the Crystal River Energy Complex Ash Storage/Disposal area. An amendment request for approval of the disposal of the solids will be submitted to the Department once the system is operational and generating solids that can be sampled for TCLP, and await for approval prior to initial disposal. Filtrate will be returned to the equalization tank to be reclaimed. The new IFBR system will include construction of an approximate 50-foot by 50-foot covered concrete equipment pad.