

ATTACHMENT H

GROUNDWATER MONITORING, OPERATION AND MAINTENANCE REQUIREMENTS

PART I.: CRYSTAL RIVER ENERGY COMPLEX (CREC)

WAFR ID NO. FLA016960

**Crystal River Energy Complex
15760 West Power Line Street
Crystal River, FL 34428
Citrus County**

Latitude: 28° 57' 27" N Longitude: 82° 42' 36" W

These Groundwater Monitoring, Operation and Maintenance Requirements (GWMOMR) were developed by the Licensee, Duke Energy Florida, LLC, in conjunction with the Florida Department of Environmental Protection Southwest District's Industrial Wastewater (IWW) Section and Solid Waste (SW) Section to incorporate the groundwater (GW) monitoring requirements into the Licensee's Conditions of Certification (COC or License). The GWMOMR incorporates Units 4 and 5 IWW percolation pond, Units 1, 2 and 3 percolation pond system, Units 4 and 5 coal storage area, ash landfill, the flue gas desulfurization (FGD) wastewater treatment system (WTS), and south coal storage area. The Department's Southwest District IWW Section and SW Section are responsible for reviewing and approving all revisions to this document in accordance with Section A, Condition XX. Procedures for Post-Certification Submittals and Section B, Condition III. DEP Facility-Wide Specific Conditions, A. Groundwater Monitoring Requirements of this License.

New sources or deletion of existing sources of wastewater with changes to water quality standards, applications for a new Water Quality Criteria exemption pursuant to Rule 62-520.500 F.A.C., and improvements made at a treatment facility to provide for a new or expanded land application system with increase in the permitted capacity are considered modifications to the existing license. The licensee shall submit a petition for modification to the Conditions of Certification to the Department for review and approval in accordance with Section 403.516, F.S. and 62-17.211, F.A.C.

WASTEWATER TREATMENT:

Neutralized wastes are discharged into a percolation pond system (G-001), located at the southwest corner of the CREC property and south of the discharge canal. The percolation pond system consists of four ponds. Ponds #1 and #2 are operated in parallel, located at the northeast corner of the percolation system. The ponds act as settling basins and the settled effluent from either pond is routed south to Pond #3 which overflows west into pond #4 (7.16 acres) for percolation. Pond #4 has the capability to hold the wastewater as well as direct rainfall resulting from a 25-year 24-hour storm in the 13.6-acre pond catchment area. The sources of wastewater include Units 1, 2, and 3 equipment drains, laboratory drains, floor drains, neutralized regeneration wastes from the demineralizer resin beds, boiler blowdown, boiler drains (chemical cleanings), air pre-heater wash drains, sewage treatment plant effluents, stormwater drainage from the transformer area, precipitator washes, boiler washes, boiler water blowdown, reverse osmosis/micro filtration concentrate and treated blowdown from the Units 4 & 5 Flue Gas Desulfurization.

Neutralized wastewater generated from Units 4 and 5 are discharged into a percolation pond [pond #5, G-002], located on the western portion of the CREC property and north of the discharge canal. The sources of wastewater include Units 4 and 5 low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar

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wastes), metal cleaning wastes (including preheater and fireside wash), boiler blowdown and overflows or maintenance flows from the bottom ash dewatering system.

ASH LANDFILL:

The ash disposal area, which is located in the northeast corner of the Crystal River Energy Complex, was originally certified under the Units 4 and 5 Conditions of Certifications for the disposal of unsalable fly ash and bottom ash from Units 4 and 5 and was subsequently modified to include disposal of unsalable fly ash and bottom ash from Units 1 and 2. The ash disposal area is comprised of separate storage piles for fly ash, high chloride ash, commingled material, Units 1 and 2 bottom ash, and Units 4 and 5 bottom ash.

With Department approval, solid wastes other than the ash materials described in paragraph #1 of this section have been disposed in the ash disposal area. Examples of other solid wastes that have been placed in the ash disposal area following receipt of Department approval include, but are not limited to, the following:

- Non-hazardous sand blast grit
- Sediment/sludge from on-site domestic wastewater infiltration basin
- Sediment/sludge from on-site industrial wastewater infiltration basin
- Intake screenings and sediment from cooling towers
- Non-petroleum contaminated soil
- Percolation pond dredge material
- Cooling tower solids
- Mill scale
- FGD wastewater treatment system solids

All future requests for approval to dispose of solid wastes other than the ash materials described in paragraph #1 and the solid wastes described in paragraph #2 of this section shall be submitted to the DEP Southwest District Office Solid Waste program for review and approval, with copies to the Siting Office, in accordance with Section B, Condition I. Department of Environmental Protection E. Solid Waste Management Plan, of the Conditions of Certification.

I. SITE GROUNDWATER MONITORING

A. Construction Requirements

1. New monitoring well. If a new monitoring well approved by the Department is constructed, a revision of this attachment will then be prepared to incorporate the well with proper well designation. [62-4.070]

2. The licensee shall give at least 72-hour notice to the Department's Southwest District Office, prior to the installation of any monitoring wells detailed in this license including the GWMOMR. [62-520.600(6)(h)]

3. All field work done in connection with this GWMOMR regarding the collection of ground water samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) (<https://floridadep.gov/dear/quality-assurance/content/dep-sops>). All laboratory analyses done in connection with this GWMOMR shall be conducted by firms that hold certification from the Department of Health, Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C. [62-160.300(1), F.A.C.].

4. Before construction of new groundwater monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. [62-520.600(6)(g)]

5. Location Requirements. Within 60 days after completion of construction of new IWW ground water monitoring wells, the following information shall be submitted.

a. A properly scaled figure depicting monitor well locations (active and abandoned) with identification numbers shall be submitted to the Southwest District IWW Section. The figure shall also include (or attach) the monitoring well, top of casing, and ground surface elevations referenced to National Geodetic Vertical Datum (NGVD) of

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1929 to the nearest 0.01 foot, along with monitor well location latitude and longitude to the nearest 0.1 second. [62-520.600(6)(i)]

6. Well Construction Detail Requirements. Within 30 days after completion of construction or abandonment of ground water monitoring wells, the following information shall be submitted.

a. For both IWW and SW wells, a copy of the Southwest Florida Water Management District (SWFWMD) State of Florida Permit Application to Construct, Repair, Modify, or Abandon a Well (LEGR.040.01 (June 2010) 40D-3.101(1), F.A.C.) and

b. IWW Wells, the Department's Southwest District Office well completion reports and soil boring/lithologic log on SWFWMD Form 62-520.900(2), Monitor Well Completion Report, for each well. The SWFWMD form can be accessed at https://www.sfwmd.gov/sites/default/files/documents/fdep_form_62_532_900_2.pdf. [62-532.410 and 62-520.900(2)]

c. SW Wells, SWFWMD Well Completion Report, and DEP Form 62-701.900(30), Monitoring Well Completion Report for each well shall be submitted to the Southwest District SW Section. The DEP form can be accessed at:

<https://floridadep.gov/waste/permitting-compliance-assistance/forms/monitoring-well-completion-report>

7. Initial Sampling Requirements. Within 30 days of installation of a new IWW well, the licensee shall conduct initial ground water sampling events as follow:

Sample the new well for the Primary and Secondary Drinking Water parameters included in Rule 62-550, Florida Administrative Code, Public Drinking Water Systems (excluding asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). In addition, volatile organics and extractable semi-volatile organics shall be analyzed. Results of this initial sampling shall be submitted to the Southwest District IWW Section and the SCO within 60 days after sampling. [62-520.600(5)(a)2]

8. All piezometers and monitoring wells not part of this GWMOMR are to be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

1. During the period of operation authorized by this Certification the licensee shall continue to sample ground water at the existing monitoring wells identified in item.I.B.2 below, in accordance with the COC and GWMOMR prepared in accordance with Rule 62-520.600, F.A.C.

2. The following monitoring wells shall be sampled for Groundwater Monitoring requirements:

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing	Unit Monitored
MWB-1	Background Well (the same background well as Facility ID FLA964891)	20	Upper Floridan	Existing	IWW background well
MWB-30R	Background Well (replaced MWB-30)	20	Upper Floridan	Existing	SW well Ash landfill background well
MWC-1R	Compliance Monitoring Well	20	Upper Floridan	Existing	IWW well Unit 4 &5
MWI-7R	Intermediate Monitor Well (Relocated)	20	Upper Floridan	Existing	IWW well
MWC-16	Compliance Monitor Well	21.1	Upper Floridan	Existing	IWW well FGD WTS
MWC-21R	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well

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Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing	Unit Monitored
MWC-27	Compliance Monitor Well	33	Upper Floridan	Existing	IWW well ponds units 1, 2 &3
MWC-28	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well
MWC-29	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well South coal
MWC-IF2	Compliance Monitor Well	14	Upper Floridan	Existing	IWW well ponds units 1, 2 &3
MWC-31	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well FGD WTS
MWC-32	Compliance Monitor Well Northern boundary of the property	20	Upper Floridan	Existing	IWW well
MWC-33	Compliance Monitor Well Northern boundary of the property	20	Upper Floridan	Existing	IWW well
MWI-2R2	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash landfill
MWC-12R	Compliance Monitor Well (For Primary Drinking Water Standards Only)	20	Upper Floridan	Existing	SW well Ash landfill
TWI-1R	Intermediate Monitor Well	22	Upper Floridan	Existing	SW well Ash Landfill
TWI-2R	Piezometer	24	Upper Floridan	Existing	SW well Ash Landfill
TWI-3	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash Landfill
TWI-4	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash Landfill
TWI-5	Intermediate Monitor Well	19.5	Upper Floridan	Existing	SW well Ash Landfill

3. The monitor wells specified in Condition.I.B.2 above, shall be sampled for the parameters listed below:

Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Copper, Total Recoverable	Report	MG/L	Grab	Quarterly
Chloride (as Cl)	Report	MG/L	Grab	Quarterly
Iron, Total Recoverable	Report	MG/L	Grab	Quarterly
Nitrogen, Nitrate, Total (as N)	10.0	MG/L	Grab	Quarterly
pH*	Report	SU	In-situ	Quarterly
Sodium, Total Recoverable	Report	MG/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	Report	MG/L	Grab	Quarterly
Specific Conductance*	Report	MMHOS/CM	In-situ	Quarterly
Turbidity*	Report	NTU	In-situ	Quarterly
Water Level Relative to NGVD	Report	FEET	In-situ	Quarterly
Antimony, Total Recoverable	6.0	UG/L	Grab	Quarterly

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Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Arsenic, Total Recoverable	10.0	UG/L	Grab	Quarterly
Boron, Total Recoverable (GCTL Guidance concentration per 62-777F.A.C.)	Report	MG/L	Grab	Quarterly
Barium, Total Recoverable	2.0	MG/L	Grab	Quarterly
Beryllium, Total Recoverable	4.0	UG/L	Grab	Quarterly
Cadmium, Total Recoverable	5.0	UG/L	Grab	Quarterly
Mercury, Total Recoverable	2.0	UG/L	Grab	Quarterly
Selenium, Total Recoverable	50.0	UG/L	Grab	Quarterly
Chromium, Total Recoverable	100.0	UG/L	Grab	Quarterly
Lead, Total Recoverable	15.0	UG/L	Grab	Quarterly
Nickel, Total Recoverable	100.0	UG/L	Grab	Quarterly
Thallium, Total Recoverable	2.0	UG/L	Grab	Quarterly
Oxygen, Dissolved (DO)*	Report	MG/L	In-situ	Quarterly
Zinc, Total Recoverable	Report	MG/L	Grab	Quarterly
Fluoride, Total (as F)	4	MG/L	Grab	Quarterly
Cyanide, free	0.2	MG/L	Grab	Quarterly
Temperature, Water*	Report	°F	In-situ	Quarterly
Sulfate, Total	Report**	MG/L	Grab	Quarterly
Aluminum, Total Recoverable	Report**	UG/L	Grab	Quarterly
Manganese, Total Recoverable	Report**	UG/L	Grab	Quarterly
Molybdenum, Total Recoverable	Report	UG/L	Grab	Quarterly
Silver, Total Recoverable	Report	UG/L	Grab	Quarterly
Strontium, Total Recoverable	Report	UG/L	Grab	Quarterly
Vanadium, Total Recoverable	Report	UG/L	Grab	Quarterly

* The field parameters shall be sampled per DEP-SOP-001/01, FS 2200 Ground Water Sampling, Figure FS 2200-2 Ground Water Purging Procedure (<https://floridadep.gov/dear/quality-assurance/content/dep-sops>) and recorded on Form FD 9000-24, Ground Water Sampling Log (<http://www.dep.state.fl.us/water/sas/qa/forms.htm>). For the SW wells, the sampling logs shall be submitted with each ground water report submitted in accordance with #VI.B., below. The field parameters to be included in the ground water reports for the IWW wells and the SW wells shall be the last sample recorded on FD 9000-24.

Guidance Concentration or Secondary parameters are report only result on the DMR.

** Applicable to the SW wells associated with Ash Storage Area only – (MWB-30R, MWI – 2R2, MWC-12R, TWI-1R, TWI-3, TWI-4, and TWI-5) [62-520.600(11)(b)]

4. If the concentration for any constituent listed in I.B.3 in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. [62-520.420(2)]

5. Ground water quality criteria of chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge (ZOD). The ground water minimum criteria specified in Rule 62-520.400, F.A.C., shall be met within the zone of discharge. [62-520.400, 62-520.420(4), and 62-52.465]

a. The Crystal River Energy Complex is an existing installation as defined by Rule 62-520.200(10), F.A.C., thus the ZOD has been established per the discretion of the Department in consideration of the property extent and site-specific hydrology. Accordingly, the ZOD is defined by the downgradient terminus of the upland ground water regime prior to transition to a surface water regime. This ground water, surface water ZOD boundary is delineated by the location of compliance monitor wells. The vertical limit of the ZOD as defined by Rule 62-520.200(27), F.A.C., is the base of the Floridan aquifer.

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6. Water levels shall be recorded prior to evacuating the well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.01 feet. [62-520.600(11)(c)]

7. Ground water monitoring wells shall be purged prior to sampling to obtain a representative sample. [62-160.210]

8. Analyses shall be conducted on un-filtered samples, unless filtered samples have been approved by the Department as being more representative of ground water conditions. [62-520.310(5)]

9. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the licensee shall notify the Department's SWD office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department before installation. [62-520.600(6)(l)]

10. Every 5 years upon issuance of the Modification P COC, the licensee shall submit a proposal identifying the IWW wells in the Department-approved monitoring requirements that will be sampled for the Primary drinking water parameters included in Chapter 62-550, F.A.C., (excluding radionuclides, asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). The selection of the wells should include at least one background well and one intermediate well, at the CREC, respectively. Compliance well selections should be based on recent groundwater conditions. Sampling results should be submitted sixty days [60] upon Department's approval of the well proposal sampling. [62-520.600(5)(b)]

11. Ground water monitoring test results for the IWW wells shall be submitted on Part D of DEP Form 62-620.910(10) (attached) and shall be submitted as required under Section II C below. Ground water monitoring results for the SW wells shall be submitted as required under Section VI.B., below.

II. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

Land Application Systems

A. Land Application:

Units 1, 2 & 3. An existing 0.91 MGD monthly average daily flow (MADF) land application system (G-001) consists of four [4] percolation ponds (Ponds 1-4). Land application system G-001 is located approximately at latitude 28° 57' 27" N, longitude 82° 42' 22" W.

Unit 4 & 5. An existing land application system (G-002) consists of one [1] percolation pond. Land application system G-002 is located approximately at latitude 28° 57' 52.6" N, longitude 82° 42' 00.9" W.

1. Water levels in ponds 1, 2, 3, 4 & 5 shall be recoded weekly on the part B DMRs. The part B DMRs shall be submitted quarterly in accordance to the schedule in Section II C below.

2. The licensee is authorized to discharge process wastewater, non-process wastewater, power plant equipment drains, laboratory drains, floor drains, neutralized regeneration wastes from the demineralizer resin beds, boiler blowdown, boiler drains (chemical cleanings), air pre-heater wash drains, sewage treatment plant effluents, stormwater drainage from the transformer area, treated blowdown from the Units 4 & 5 Flue Gas Desulfurization, precipitator washes, boiler washes, boiler water blowdown, and reverse osmosis/micro filtration concentrate to Land Application System G-001 [Units 1, 2 & 3], a percolation pond system. Such discharge shall be limited and monitored by the Licensee as specified below and reported in accordance with specific condition Section II. C. below.

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	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	0.91	Report See Cond. II.A.6	--	Daily	Calculated	FLW-3
Flow (MGD)	--	Report See Cond. II.A.6	--	Daily	Meter	FLW-1
Flow (MGD)	--	Report See Cond. II.A.6	--	Daily	Meter	FLW-2
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-1
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-2
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-3
Water Level Relative to NGVD	--	Report See Cond. II. A.1	--	Weekly	In-situ	OTH-4
pH (SU)	--	Report	Report	Quarterly	In-situ	EFF-1 EFF-2
Solids, Total Dissolved (TDS) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	In-situ	EFF-1 EFF-2
Oil and Grease (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Nitrogen, Nitrate, Total (as N) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Chloride (as Cl) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Cyanide, Total (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2

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Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Antimony, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Arsenic, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Beryllium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Boron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Cadmium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Copper, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Chromium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Iron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Lead, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Mercury, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Nickel, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Selenium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Silver, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Sodium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2

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Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Thallium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Zinc, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Molybdenum, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2
Strontium, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2
Vanadium, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2

3. Effluent samples shall be taken at the monitoring site locations as described below:

Sample Point	Description of Monitoring Location
FLW-3	The sum of FLW-1 and FLW-2
FLW-1	The sum of all IWW flows to percolation pond system not including the treated FGD blowdown.
FLW-2	Flow from the treated FGD blowdown into evaporation/percolation pond #3
EFF-2	Effluent from the effluent pipe at the FGD wastewater treatment system.
EFF-1	At discharge pipe into the active pond, either the East Pond or West Pond. Ponds will be rotated on a yearly basis, or as necessary.
OTH-1	Staff gauge located in Pond #1.
OTH-2	Staff gauge located in Pond #2.
OTH-3	Staff gauge located in Pond #3.
OTH-4	Staff gauge located in Pond #4.

4. The Licensee shall contact and request authorizations from the Department's Southwest District Office, prior to placing into service any backup/ emergency treatment system for the FGD blow down. (i.e. Filter press). The request shall provide details and specification for the proposed system and operational details along with the expected duration.

5. All flow measurement devices shall be calibrated at least once every 12 months or based on the manufacturer requirements.

6. The Licensee is required to measure flow from the treated FGD blowdown to the CR 1, 2 & 3 Percolation Pond System at the locations identified as FLW-1, FLW-2, and FLW-3 in the DMRs of the GWMOMR required by this license. The Licensee shall record flow rates on the DMRs. Flow rate results shall be submitted with the DMR for each scheduled month and reported in accordance with Section II C below:

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7. The licensee is authorized to discharge plant process wastewater, non-process wastewater, plant equipment drains, laboratory drains, floor drains, non-hazardous boiler chemical cleaning wastewater, low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including preheater and fireside wash), boiler blowdown and overflows or maintenance flows from the bottom ash dewatering system to Land Application System G-002 (Units 4 & 5), a percolation pond [pond #5]. Such discharge shall be limited and monitored by the Licensee as specified below and reported in accordance with Section II C below.

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	--	Report See Cond II.A.9 & 10	--	Daily	Calculated	FLW-4
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-5
pH (SU)	--	Report	Report	Quarterly	In-situ	EFF-4
Solids, Total Dissolved (TDS) (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	In-situ	EFF-4
Oil and Grease (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Chloride (as Cl) (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Antimony, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Arsenic, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Beryllium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Boron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Cadmium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4

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	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Copper, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Chromium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Iron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Lead, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Mercury, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Nickel, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Selenium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Sodium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Thallium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Zinc, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4

8. Effluent samples shall be taken at the monitoring site locations listed in this attachment, condition II.A.7 and as described below:

Sample Point	Description of Monitoring Location
FLW-4	Flow measurement at evaporation/percolation pond #5
EFF-4	Representative location from Evaporation/percolation pond #5 in the vicinity of the IWW discharge structures.
OTH-5	Staff gauge located in Pond #5.

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9. The total flows from Units 4 & 5 IWW to percolation pond #5 shall be calculated. Flows measurement could be obtained by meters or determined by an alternative method approved by the Department. Flow meters shall be installed, if needed within 240 days of the issuance of Mod P COC. An extension of time may be granted by the Department for good cause. This submittal is subject to the Post Certification Requirements in Section A. Condition XX.

10. The Licensee is required to measure flow at the discharge pipe from Units 4 & 5 to Percolation Pond System at the locations identified as FLW-4 in the DMRs of the GWMOMR required by this license. The Licensee shall record flow rates on the DMRs. Flow rate results shall be submitted with the DMR for each scheduled month and reported in accordance with Section II. C. below.

B. Other Methods of Disposal or Recycling

There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by the COC including this GWMOMR or by NPDES Permit Nos. FL0000159 and FL036366.

1. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this attachment shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at <http://www.dep.state.fl.us/labs/library/index.htm>. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this attachment. Any method included in the list may be used for reporting as long as it meets the following requirements:

a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

b. The laboratory reported MDL for the specific parameter is less than or equal to the attachment limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the attachment shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and

c. If the MDLs for all methods available in the approved list are above the stated attachment limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

2. When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

3. Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the attachment limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

C. Monitoring and Reporting Requirements – Industrial Wastewater Components

During the period of operation authorized by the Condition of Certification, the Licensee shall complete and submit to the Southwest District IWW Section Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this license. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
Monthly or Toxicity	first day of month – last day of month	28 th day of following month
Quarterly	January 1 - March 31	April 28

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REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
	April 1 – June 30 July 1 – September 30 October 1 – December 31	July 28 October 28 January 28
Semiannual	January 1 – June 30 July 1 – December 31	July 28 January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The licensee may submit either paper or electronic DMR forms. If submitting paper DMR forms, the licensee shall make copies of the attached DMR forms, without altering the original format or content unless approved by the Department, and shall mail the completed DMR forms to the Department's Southwest District Office at the address specified below by the twenty-eighth (28th) of the month following the month of operation.

Florida Department of Environmental Protection
Industrial Wastewater Program
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

If submitting electronic DMR forms, the licensee shall use the electronic DMR system(s) approved in writing by the Department and shall electronically submit the completed DMR forms to the Department by the twenty-eighth (28th) of the month following the month of operation. Data submitted in electronic format is equivalent to data submitted on signed and certified paper DMR forms. *[62-620.610(18)]*

Unless specified otherwise in this GWMOMR, all reports and notifications required by this GWMOMR, including twenty-four-hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Phone Number - (813) 470-5700
FAX Number - (813) 470-5995
Email – swd_iw@dep.state.fl.us

An electronic copy of all submittals required by this Plan shall also be sent to the Siting Coordination Office by email to SCO@dep.state.fl.us. *[62-620.610(18)] [62-601.300(1), (2), and (3), F.A.C.]*

D. Other Limitations

1. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
2. The Licensee shall provide safe access points for obtaining representative samples which are required by this attachment.
3. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.
4. Any bypass of the treatment facility which is not included in the monitoring specified in Sections I.B.3 and II.A. 2 and 7 above, is to be monitored for flow and all other required parameters. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or estimated, as appropriate, to obtain reportable data. All monitoring results shall be reported on the appropriate DMR.

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III. INDUSTRIAL SLUDGE/SOLIDS

A. Additional Land Application Requirements.

1. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. *[62-620.320(6)]*
2. The bottoms for the settling basins and percolation basins shall be cleaned out periodically, or when necessary, to remove the excess buildup of sediments, and to ensure continuous percolation capability for the percolation basins. Solids and sludges from this system shall be recovered and either disposed at a Class I landfill site authorized by the Department to accept solid waste under Chapter 62-701, F.A.C. or, in the on-site ash storage/disposal area if authorized in the plant's coal combustion product/solid waste materials management plan mentioned in VI.A. below.
3. During normal plant operation, the freeboard of the percolation basins shall not be less than three feet except after rainfall events exceeding the 25-year, 24-hour storm event.
4. The licensee shall not discharge water from the percolation basins to surface waters of the State except as authorized under NPDES permits FL0000159 or FL0036366.

IV. DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE OF WASTEWATER FACILITIES REQUIREMENTS

A. General Operation and Maintenance Requirements

1. During the period of operation authorized by this license, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. *[62-620.320(6)]*
2. The licensee shall maintain the following records and make them available for inspection on the site of the licensed facility.
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports required by the license for at least three years from the date the report was prepared;
 - c. Records of all data, including reports and documents, used to complete the application for at least three years from the date the application was filed;
 - d. A copy of the current license;
 - e. A copy of any required record drawings; and
 - f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. *[62-620.350]*

B. Impoundment Operation and Maintenance

1. All impoundments used to hold or treat wastewater and other associated wastes shall be operated and maintained to prevent the discharge of pollutants to waters of the State, except as authorized under NPDES Permit Numbers FL0000159 and FL0036366.
2. Operation and maintenance of any impoundment shall be in accordance with all applicable State regulations. When practicable, piezometers or other instrumentation shall be used as a means to aid monitoring of impoundment integrity.

C. Impoundment Integrity Inspections

1. All impoundments shall be inspected annually by qualified personnel with knowledge and training in impoundment integrity. Annual inspections shall include observations of dike and toe areas for erosion, cracks or bulges, seepage, wet or soft soil, changes in geometry, the depth and elevation of the impounded water, sediment or slurry, freeboard,

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changes in vegetation such as overly lush, dead or unnaturally tilted vegetation, and any other changes which may indicate a potential compromise to impoundment integrity.

2. Within 30 days after the annual inspection, a qualified, responsible officer shall certify to the Department that no breaches or structural defects resulting in the discharges to surface waters of the State and that no changes were observed which may indicate a potential compromise to impoundment integrity during the previous calendar year.

3. The certification shall also include a statement that the impoundments provide the necessary minimum wet weather detention volume to contain the combined volume for all direct rainfall and all rainfall runoff to the pond resulting from the 25-year, 24-hour rainfall event and maximum dry weather plant waste flows which could occur during a 24-hour period.

4. The licensee shall conduct follow-up inspections within 7 days after large (i.e., 25-year, 24-hour precipitation event or greater rainfall) or extended rain events.

5. In the event that the impoundment integrity is compromised and may result in a potential discharge to surface waters of the State, the licensee shall notify the Department within twenty-four (24) hours of becoming aware of the situation and provide a proposed course of corrective action and implementation schedule within fifteen (15) days after notifying the Department. Observed changes such as significant increases in seepage or seepage carrying sediment may be signs of imminent impoundment failure and should be addressed immediately.

D. Reporting and Recordkeeping Requirements for Impoundments

1. The summarized findings of all monitoring activities, inspections, and corrective actions pertaining to the impoundment integrity, and operation and maintenance of all impoundments shall be documented and kept on-site and made available to Department inspectors upon request.

2. Starting with the issuance of the Modification P COC., all pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated certifications by qualified, Florida-registered professional engineer, and regulatory approvals, shall be kept on site in accordance with Condition IV.A. above and made available to Department inspectors upon request.

V. OTHER SPECIFIC CONDITIONS

1. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted as required by this GWOMR shall be signed and sealed by the professional(s) who prepared them.

VI. SOLID WASTE MANAGEMENT

A. Coal Combustion Product and Non-Coal Combustion Products

According to the Coal Combustion Product (CCP)/Solid Waste Materials Management Plan, prepared by Golder Associates, (revised December 2013), materials generated at Crystal River Energy Complex (CREC) Units 1, 2, 4, and 5 have been grouped into Coal Combustion Products (CCPs), Non-Coal Combustion Products (Non-CCPs), and Miscellaneous Solid Wastes, as follow:

1. CCPs: fly ash (all units), Bottom Ash – pyrite free (Units 1 and 2), Bottom Ash (Units 4 & 5), Flue Gas Desulfurization Products (Gypsum) (Units 4 and 5).

2. Non-CCPs: Pyrite Mill Reject (Units 1 and 2), Cooling Tower Solids (Units 4 and 5, Helper Cooling Tower Solids), Dredge Materials (intake/discharge canals, ditch cleanings, IWW ponds), Truck Wash Solids.

3. Miscellaneous Solid Wastes: Units 4 and 5 Coal Yard Soil and Impacted Soils (site-wide).

4. See Table 1 “Summary of Coal Combustion Product and Non-Coal Combustion Product Manual” of the CCP/Solid Waste Materials Management Plan for the Department-approved disposition of CCPs and Non-CCPs (i.e., off-site disposal, beneficial use off-site, on-site disposal, etc.).

B. Monitoring and Reporting Requirements – Solid Waste Components

1. Ground Water Monitor Well Locations. The ground water monitoring network for the ash landfill (i.e., the “SW wells”) are located on the figure (Attachment I) prepared by PEF, as follow:

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<u>Well #</u>	<u>Scheduling Notes</u>	<u>WACS Testsite #</u>	<u>Aquifer Monitored</u>	<u>Well Designation</u>	<u>Location</u>
MWI-2R2	A	28398	Floridan	Intermediate	See figure
MWC-12R	A	28399	Floridan	Compliance	See figure
TWI-1R	A, B	28400	Floridan	Intermediate	See figure
TWI-3	A, B	28401	Floridan	Intermediate	See figure
TWI-4	A, B	28402	Floridan	Intermediate	See figure
TWI-5	A, B	28403	Floridan	Intermediate	See figure
TWI-2R	A, B	28404	Floridan	Piezometer	See figure
MWB-30R	B	28738	Floridan	Background	See figure

Scheduling Notes:

A = existing well/piezometer; construction details previously submitted.

B = Department form #62-701.900(30), Monitoring Well Completion Report shall be submitted to the Southwest District SW Section by the licensee within 60 days of final approval of Modification P of this license.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. Bollards or other devices shall be installed to protect the monitor wells located in areas of high traffic flow within the facility. The permittee shall keep all monitor wells locked to minimize unauthorized access. *[62-701.510(3)(d)5, F.A.C.]*

2. Water Quality Reporting Requirements. The results of each ground water sampling event conducted at the ash landfill of the Crystal River Energy Complex to comply with the conditions presented herein shall be included in Electronic Data Deliverable (EDD) reports that provide:

a. Required water quality monitoring reports and all analytical results shall be submitted electronically. Water quality monitoring reports shall be submitted in Adobe pdf file format. The water quality monitoring EDD reports shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases as summarized on the Department's web site at:

<https://floridadep.gov/waste/waste/content/adapt>

Water quality monitoring reports shall provide the following information:

- i. Cover letter;
- ii. Chain of custody forms;
- iii. Water levels;
- iv. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
- v. Laboratory and Field data and error logs, as applicable. [In addition to the Adobe pdf file format, this data and associated error logs shall be submitted in an ADaPT-compatible, comma separated text file format.

In addition to the above water quality reports, PEF will provide ground water contour maps and ground water flow analysis utilizing existing groundwater monitoring well data from TWI-1R, TWI-2R (piezometer water level measurements), TWI-3, TWI-4, TWI-5, MWI-2R2, and MWC-12R). Contour map information will be collected from the aforementioned groundwater wells on a semi-annual basis and will be summarized and submitted in an annual report provided to the Department within 90 days following the second semi-annual groundwater contour data collection effort. The annual summary report containing contour maps and ground water flow analysis shall be generated, signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations.

The report of results shall be submitted to:

Department of Environmental Protection,
Southwest District Office, Solid Waste Section,
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926; and,

Department of Environmental Protection,

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Solid Waste Section
2600 Blair Stone Road, MS 4565,
Tallahassee, FL 32399-2400

b. The Licensee shall submit to the Southwest District SW Section the results of analyses reported for each sampling event conducted at the “SW wells” identified in #I.B.2. above, by the following due dates:

i. Results of ground water initial sampling at SW wells shall be submitted within 60 days after sampling.

ii. Results of ground water routine, quarterly sampling at the site background wells and all SW wells shall be submitted by April 28, July 28, October 28, and January 28 of each year for the periods January 1-March 31, April 1-June 30, July 1-September 30, and October 1-December 31, respectively.

VII. FACILITY-WIDE GENERAL CONDITIONS

A. This license does not relieve the licensee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this license source; nor does it allow the licensee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The licensee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this license which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a licensee in an enforcement action that it would have been necessary to halt or reduce the licensee activity in order to maintain compliance with the conditions of this license. [62-620.610(5)]

B. The licensee shall report to the Department’s Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the licensee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the licensee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

1. The following shall be included as information which must be reported within 24 hours under this condition:

a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,

b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

d. Any unauthorized discharge to surface or ground waters.

2. Oral reports as required by this subsection shall be provided as follows:

a. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph B.1.d that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

i. Name, address, and telephone number of person reporting;

ii. Name, address, and telephone number of permittee or responsible person for the discharge;

iii. Date and time of the discharge and status of discharge (ongoing or ceased);

iv. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);

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- v. Estimated amount of the discharge;
 - vi. Location or address of the discharge;
 - vii. Source and cause of the discharge;
 - viii. Whether the discharge was contained on-site, and cleanup actions taken to date;
 - ix. Description of area affected by the discharge, including name of water body affected, if any; and
 - x. Other persons or agencies contacted.

b. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department's Southwest District Office within 24 hours from the time the permittee becomes aware of the circumstances.

3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southwest District Office shall waive the written report. *[62-620.610(20)]*

C. Bypass Provisions.

1. Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

2. Bypass is prohibited, and the Department may take enforcement action against a Licensee for bypass, unless the licensee affirmatively demonstrates that:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The Licensee submitted notices as required under facility-wide General Condition VII.C.3. of this Attachment H.

3. If the licensee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The licensee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as under Facility-Wide General Condition VII.B of this Attachment H. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

4. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Facility-Wide General Condition VII.C2. a through c of this Attachment H.

5. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Facility-Wide General Condition VII.C. 2 through 4 of this Attachment H.

D. Upset Provisions

1. A licensee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the licensee can identify the cause(s) of the upset;

b. The licensed facility was at the time being properly operated;

c. The licensee submitted notice of the upset as required in Facility-Wide General Condition VII.B of this Attachment H; and

d. The licensee complied with any remedial measures required in Facility-Wide General condition VII.A of this Attachment H.

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2. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the licensee.

3. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review. *[62-620.610(23), F.A.C.]*

PART II.: CITRUS COMBINED CYCLE PLANT (CCCP)

WAFR ID NO. FLA964891

**Crystal River Energy Complex
15760 West Power Line Street
Crystal River, FL 34428
Citrus County**

Latitude: 28° 57' 27" N Longitude: 82° 42' 36" W

These Groundwater Monitoring, Operation and Maintenance Requirements (GWMOMR) were developed by the Licensee, Duke Energy Florida, LLC, in conjunction with the Florida Department of Environmental Protection Southwest District's Industrial Wastewater (IWW) Section and Domestic Wastewater (DW) Section to incorporate the groundwater (GW) monitoring requirements into the Licensee's Conditions of Certification (COC or License). The GWMOMR incorporates the new IWW percolation pond at the Citrus Combined Cycle Plant (CCCP) and Domestic Package Plant. The Department's Southwest District IWW Section DW Section are responsible for reviewing and approving all revisions to this document in accordance with Section A, Condition XX. Procedures for Post-Certification Submittals and Section B, Condition III. DEP Facility-Wide Specific Conditions, A. Groundwater Monitoring Requirements of this License.

New sources or deletion of existing sources of wastewater with changes to water quality standards, applications for a new Water quality Criteria exemption pursuant to Rule 62-520.500 F.A.C., and improvements made at a treatment facility to provide for a new or expanded land application system with increase in the permitted capacity are considered modifications to the existing license. The licensee shall submit a petition for modification to the Conditions of Certification to the Department for review and approval in accordance with Section 403.516, F.S. and 62-17.211, F.A.C.

WASTEWATER TREATMENT:

IWW

The CCCP facility will be a natural gas-fired combined cycle plant consisting of two generating units. Each unit will consist of two advanced combustion turbine generators, two heat recovery steam generators, and one steam turbine generator. Construction of the facility began in the fall 2015, and commercial operation is scheduled for May 2018 for the first unit and December 2018 for the second unit.

IWW discharges consists of low-volume waste streams, which include, flows from plant service water systems and floor drains, blowdown from the heat recovery steam generators (HRSGs), raw water treatment filter backwash, neutralized condensate polisher regeneration wastes, and other residual waters from the demineralized water treatment systems. Waste streams from these sources will be treated, as appropriate, and discharged to an on-site percolation pond system (G-003 land application system, consisting of two IWW interconnected percolation ponds). With the exception of cooling tower blowdown and emergency condenser hotwell overflow wastewater, IWWs will not be discharged to surface waters.

The wastewater from floor and equipment drains throughout the plant may be exposed to oily products and, therefore, will be collected and treated through oil/water separators. Residual water from the demineralized water system will be neutralized. Infrequent HRSG and pipe cleaning that produces metal cleaning wastes will be collected and disposed off-site by a licensed vendor. Sanitary wastewater will be sent to an onsite, appropriately sized, package domestic wastewater treatment plant and the treated effluent will be discharged to the IWW percolation pond system. Potential contact stormwater runoff from the power block and equipment areas will be treated through oil/water separators and routed to the on-site IWW percolation pond system. The pond system is designed to contain anticipated plant discharge during cold start of the plant coinciding with a 25-year, 24-hr storm event. Noncontact stormwater runoff will be collected and routed to the stormwater detention ponds.

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DW

A new 0.0015 mgd Annual Average Daily Flow (AADF) activated sludge, extended aeration facility consisting of: a manual barscreen, a flow equalization tank of 800 gallons, aeration basin of 1,547 gallons, two clarifiers having a combined volume of 552 gallons and a combined surface area of 4.5 square feet, two filters with a total of 4.0 square feet of surface area, one digester of 368 gallons, two chlorine contact chambers having a combined volume of 90 gallons, and one effluent pump chamber of 628 gallons. This facility is designed to provide secondary treatment with basic disinfection. The effluent from the domestic wastewater treatment plant will flow into the IWW percolation pond system described above.

I. SITE GROUNDWATER MONITORING

A. Construction Requirements

1. New monitor wells. The licensee shall construct two new IWW monitoring wells MWA-5 and MWA-6 in addition to existing four IWW monitoring wells, identified in Condition I.B.2. The designation of new wells will be determined after the zone of discharge for the IWW percolation pond system is defined in accordance with Condition I.B.5.a. A revision of this attachment will then be prepared to incorporate the proper well designation. [62-4.070]

2. The licensee shall give at least 72-hour notice to the Department's Southwest District Office, prior to the installation of any monitoring wells detailed in this license including the GWMOMR. [62-520.600(6)(h)]

3. The QUARTERLY sampling and analysis of all new IWW ground water monitoring wells shall be conducted within 30 days following receipt of any IWW in IWW percolation pond system (G-003 land application system) in accordance with condition I.B.1. below. The wells shall be sampled for the parameters identified in Condition I.B.3. below. All field work done in connection with this GWMOMR regarding the collection of ground water samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) (<https://floridadep.gov/dear/quality-assurance/content/dep-sops>). All laboratory analyses done in connection with this GWMOMR shall be conducted by firms that hold certification from the Department of Health, Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C. [Rule 62-160.300(1), F.A.C.].

4. Before construction of new groundwater monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. [62-520.600(6)(g)]

5. Location Requirements. Within 60 days after completion of construction of new IWW ground water monitoring wells, the following information shall be submitted.

a. A properly scaled figure depicting monitor well locations (active and abandoned) with identification numbers shall be submitted to the Southwest District IWW Section. The figure shall also include (or attach) the monitoring well, top of casing, and ground surface elevations referenced to National Geodetic Vertical Datum (NGVD) of 1929 to the nearest 0.01 foot, along with monitor well location latitude and longitude to the nearest 0.1 second. [62-520.600(6)(i)]

6. Well Construction Detail Requirements. Within 30 days after completion of construction or abandonment of ground water monitoring wells, the following information shall be submitted.

a. A copy of the Southwest Florida Water Management District (SWFWMD) State of Florida Permit Application to Construct, Repair, Modify, or Abandon a Well (LEGR.040.01 (June 2010) 40D-3.101(1), F.A.C.) and

b. Well completion reports and soil boring/lithologic log on SWFWMD Form 62-520.900(2), Monitor Well Completion Report, for each well. The SWFWMD form can be accessed at https://www.sfwmd.gov/sites/default/files/documents/fdep_form_62_532_900_2.pdf

7. Initial Sampling Requirements. Within 30 days of installation of all new IWW wells, and prior to discharging wastewater to the new CCCP IWW percolation pond system (G-003 land application system), the licensee shall conduct initial ground water sampling events as follow:

Sample all new ground water monitoring wells for the Primary and Secondary Drinking Water parameters included in Rule 62-550, Florida Administrative Code, Public Drinking Water Systems (excluding asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). In addition, volatile organics and extractable semi-volatile organics shall be analyzed.

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Results of this initial sampling shall be submitted to the Southwest District IWW Section and the SCO within 60 days after sampling. [62-520.600(5)(a)2]

8. All piezometers and monitoring wells not part of this GWMOMR are to be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

1. Upon placing the G-003 land application system (i.e., new IWW percolation pond system at the CCCP) in operation, the permittee shall begin sampling ground water at the new monitoring wells identified in Permit Condition I.B.2 below.

2. The following monitoring wells shall be sampled for Groundwater Monitoring requirements:

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing	Unit Monitored
MWB-1	Background well at the northeast corner of the IWW percolation pond system at the CCCP	25	Upper Floridan	Existing	IW well CCCP Percolation pond system
MWA-2	Monitoring well no more than 100 ft downgradient of the IWW percolation pond system at the CCCP	20	Upper Floridan	Existing	IW well CCCP Percolation pond system
MWA-3	Monitoring well no more than 100 ft downgradient of the IWW percolation pond system at the CCCP	20	Upper Floridan	Existing	IW well CCCP Percolation pond system
MWA-4	Monitoring well approximately 300 ft downgradient of the IWW percolation pond system at the CCCP	25	Upper Floridan	Existing	IW well CCCP Percolation pond system
MWA-5	Monitoring well no more than 100 ft north of the IWW percolation pond system at the CCCP	20	Upper Floridan	New	IW well CCCP Percolation pond system
MWA-6	Monitoring well approximately 2000 ft to southeast of the IWW percolation pond system at the CCCP	20	Upper Floridan	New	IW well CCCP Percolation pond system

3. The monitor wells listed I.B.2 shall be sampled for the parameters listed below:

Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Chloride (as Cl)	250	MG/L	Grab	Quarterly
Iron, Total Recoverable	0.3	MG/L	Grab	Quarterly
Nitrogen, Nitrate, Total (as N)	10.0	MG/L	Grab	Quarterly
pH*	6.5-8.5	SU	In-situ	Quarterly
Sodium, Total Recoverable	160	MG/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	500	MG/L	Grab	Quarterly
Specific Conductance*	Report	MMHOS/CM	In-situ	Quarterly
Turbidity*	Report	NTU	In-situ	Quarterly
Water Level Relative to NGVD	Report	FEET	In-situ	Quarterly
Arsenic, Total Recoverable	10.0	UG/L	Grab	Quarterly

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Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Cadmium, Total Recoverable	5.0	UG/L	Grab	Quarterly
Chromium, Total Recoverable	100.0	UG/L	Grab	Quarterly
Lead, Total Recoverable	15.0	UG/L	Grab	Quarterly
Oxygen, Dissolved (DO)*	Report	MG/L	In-situ	Quarterly
Fluoride, Total (as F)	2.0	MG/L	Grab	Quarterly
Temperature, Water*	Report	°F	In-situ	Quarterly
Sulfate, Total	250	MG/L	Grab	Quarterly
Coliform, Fecal	4	#/100 ML	Grab	Quarterly
Aluminum, Total Recoverable	0.2	MG/L	Grab	Quarterly
Manganese, Total Recoverable	0.05	MG/L	Grab	Quarterly
Color	15	Color Units	Grab	Quarterly

* The field parameters shall be sampled per DEP–SOP-001/01, FS 2200 Ground Water Sampling, Figure FS 2200-2 Ground Water Purging Procedure (<http://www.dep.state.fl.us/water/sas/sop/sops.htm>) and recorded on Form FD 9000-24, Ground Water Sampling Log (<http://www.dep.state.fl.us/water/sas/qa/forms.htm>). The field parameters to be included in the ground water reports shall be the last sample recorded on FD 9000-24. [62-520.600(11)(b)]

4. If the concentration for any constituent listed in Conditions I.B.3 in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. [62-520.420(2)]

5. Ground water quality criteria of chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge (ZOD). The ground water minimum criteria specified in Rule 62-520.400, F.A.C., shall be met within the zone of discharge. [62-520.400, 62-520.420(4), and 62-52.465]

a. The CCCP is a new installation. The ZOD for the CCCP will be established in accordance with Rule 62-520.465(2), F.A.C., after ground water monitoring data are collected from existing monitoring wells MWB-1, MWA-2, MWA-3 and MWA-4 and new monitoring wells MWA-5 and MWA-6 for one year after the construction of the new monitoring wells.

6. Water levels shall be recorded prior to evacuating the well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.01 feet. [62-520.600(11)(c)]

7. Ground water monitoring wells shall be purged prior to sampling to obtain a representative sample. [62-160.210]

8. Analyses shall be conducted on un-filtered samples, unless filtered samples have been approved by the Department as being more representative of ground water conditions. [62-520.310(5)]

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9. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the licensee shall notify the Department's SWD office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department before installation. [62-520.600(6)(l)]

10. Every 5 years, the licensee shall submit a proposal identifying the IWW wells in the Department-approved monitoring requirements that will be sampled for the Primary and Secondary drinking water parameters included in Chapter 62-550, F.A.C., (excluding asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). The selection of the wells should include at least one background well and one compliance well at the CCCP, respectively. Compliance well selections should be based on recent groundwater conditions. Sampling results should be submitted sixty days [60] upon Department's approval of the well proposal sampling. [62-520.600(5)(b)]

11. Ground water monitoring test results for the IWW wells shall be submitted on Part D of DEP Form 62-620.910(10) (attached) and shall be submitted as required under Section II C below. Ground water monitoring results for the SW wells shall be submitted as required under Section VI.B., below.

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II. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

A. Domestic Wastewater Effluent & Influent Monitoring Requirements

1. The permittee is authorized to direct treated domestic wastewater to IWW Percolation Pond System. Such water shall be limited and monitored by the licensee as specified below and reported in accordance with II.D.:

			Reclaimed Water Limitations		Monitoring Requirements		
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Monitoring	Sample Type	Monitoring Site Number
Flow	MGD	Max	0.0015	Annual Average	Continuous	Meter	FLW-01
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max	20.0 30.0 60.0	Annual Average Monthly Average Single Sample	Monthly	Grab	EFA-01
Solids, Total Suspended	mg/L	Max Max Max	20.0 30.0 60.0	Annual Average Monthly Average Single Sample	Monthly	Grab	EFA-01
Coliform, Fecal	#/100mL	Max Max	200 800	Annual Average Single Sample	Monthly	Grab	EFA-01
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	2 Days/Week	Grab	EFA-01
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	2 Days/Week	Grab	EFA-01
Nitrogen, Nitrate, Total (as N)	mg/L	Max	12.0	Single Sample	Monthly	Grab	EFA-01

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Effluent samples shall be taken at the monitoring site locations listed in II.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-01	Flow meter
EFA-01	Effluent after disinfection before IWW Percolation Pond System

2. The treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with II.D.:

			Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max Max	0.0015 Report Report	Annual Average 3-Month Rolling Average Monthly Average	Continuous	Meter	FLW-01	See I.B.4
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	Annually	Grab	INF-01	See I.B.3
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	Annually	Grab	INF-01	See I.B.3

3. Samples shall be taken at the monitoring site locations listed in Condition II.A.2. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-01	Flow meter
INF-01	Influent prior to any return activated sludge flows.

B. Land Application System:

A new percolation pond system (G-003 land application system, consisting of two IWW interconnected percolation ponds). The G-003 land application system is located approximately at latitude 28° 58' 11.5" N, longitude 82° 40' 38.73" W.

1. The licensee is authorized to discharge plant process wastewater and non-process wastewater, including flows from plant service water systems and floor drains, blowdown from the heat recovery steam generators (HRSGs), raw water treatment filter backwash, neutralized condensate polisher regeneration wastes, and other residual waters from the demineralized water treatment systems, treated sanitary wastewater effluent and stormwater from the CCCP to the G-003 land application system. Such discharge shall be limited and monitored by the Licensee as specified below and reported in accordance with Section II. C. below.

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Annual Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	0.254	1.164 See Cond II.B.3 & 4	--	Daily	Calculated	FLW-5
Water Level Relative to NGVD	--	Report	--	Weekly	In-situ	OTH-6
pH (SU)	--	Report	Report	Quarterly	In-situ	EFF-5
Solids, Total Dissolved (TDS) (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Sulfate, Total (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Chloride (as Cl) (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Arsenic, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-5
Cadmium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-5
Chromium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Iron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Lead, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-5
Fluoride, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Nitrate, Nitrite, Total (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Aluminum, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Sodium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Annual Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Manganese, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-5
Color (color units)	--	Report	--	Quarterly	Grab	EFF-5

2. Effluent samples shall be taken at the monitoring site locations listed in this attachment, Condition II.B.1 and as described below:

Sample Point	Description of Monitoring Location
FLW-5	Total IWW flow entering G-003 land application system.
EFF-5	Representative location from G-003 land application system in the vicinity of the IWW discharge structure.
OTH-6	Staff gauge located in G-003 land application system.

3. Flows measurement at FLW-5 shall be obtained by meters or determined by an alternative method approved by the Department. Flow meters, if used, shall be installed prior to any IWW discharge to the CCCP Pond System.

4. The Licensee is required to measure flow to Percolation Pond System at the location identified as FLW-5 in the DMRs of the GWMOMR required by this license. The Licensee shall record flow rates on the DMRs. Flow rate results shall be submitted with the DMR for each scheduled month and reported in accordance with Section II. C. below. The rolling 12-month average flow to the Percolation Pond System is limited to 0.254 MGD.

5. G-003 Land Application System Initial Effluent Sampling Requirements: During the initial six (6) months of the first combined cycle generating unit, the licensee shall collect effluent samples at sample point EFF-5 and analyze the samples for all Primary and Secondary drinking water parameters every three (3) months and submit the laboratory report of the analysis to the Department's Southwest District Office's Industrial Wastewater Permitting Section for review.

6. Prior to placing the CCCP into operation, for any purpose other than testing for leaks and equipment operation, the licensee shall complete and submit to the Department DEP Form 62-620.910(12), Notification of Completion of Construction for Wastewater Facilities or Activities, which will include IWW and DW facilities and activities. [62-620.410(7)]

7. Within six (6) months after a facility is placed in operation, the permittee shall provide written certification to the Department on Form 62-620.910(13) that record drawings pursuant to Chapter 62-600, F.A.C., are available at the location specified on the form. [62-620.410(6)]

8. Fourteen (14) months after completion of installation of new monitoring wells MWA-5 and MWA-6, the licensee shall submit a request for a revision to this attachment, which will include a revised CCCP ground water monitoring plan, in accordance with Rule 62-520.600(3), F.A.C.

C. Other Methods of Disposal or Recycling

There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by the COC including this GWMOMR or by NPDES Permit Nos. FL0000159 and FL036366.

1. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this attachment shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at <http://www.dep.state.fl.us/labs/library/index.htm>. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this attachment. Any method included in the list may be used for reporting as long as it meets the following requirements:

a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

b. The laboratory reported MDL for the specific parameter is less than or equal to the attachment limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the attachment shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and

c. If the MDLs for all methods available in the approved list are above the stated attachment limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

2. When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

3. Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the attachment limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

D. Monitoring and Reporting Requirements – Industrial Wastewater Components

During the period of operation authorized by the Condition of Certification, the Licensee shall complete and submit to the Southwest District IWW Section Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this license. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
Monthly or Toxicity	first day of month – last day of month	28 th day of following month
Quarterly	January 1 - March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 – June 30 July 1 – December 31	July 28 January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The licensee may submit either paper or electronic DMR forms. If submitting paper DMR forms, the licensee shall make copies of the attached DMR forms, without altering the original format or content unless approved by the Department, and shall mail the completed DMR forms to the Department's Southwest District Office at the address specified below by the twenty-eighth (28th) of the month following the month of operation.

Florida Department of Environmental Protection
Industrial Wastewater Program
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

If submitting electronic DMR forms, the licensee shall use the electronic DMR system(s) approved in writing by the Department and shall electronically submit the completed DMR forms to the Department by the twenty-eighth (28th) of the month following the month of operation. Data submitted in electronic format is equivalent to data submitted on signed and certified paper DMR forms. *[62-620.610(18)]*

Unless specified otherwise in this GWMOMR, all reports and notifications required by this GWMOMR, including twenty-four-hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Phone Number - (813) 470-5700
FAX Number - (813) 470-5995
Email – swd_iw@dep.state.fl.us

An Electronic copy of all submittals required by this Plan shall also be sent to the Siting Coordination Office by email to SCO@dep.state.fl.us. *[62-620.610(18)][62-601.300(1),(2), and (3)]*

E. Other Limitations

1. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
2. The Licensee shall provide safe access points for obtaining representative samples which are required by this attachment.
3. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.
4. Any bypass of the treatment facility which is not included in the monitoring specified in Sections I.B. and II.A. and B. above, is to be monitored for flow and all other required parameters. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or estimated, as appropriate, to obtain reportable data. All monitoring results shall be reported on the appropriate DMR.

III. INDUSTRIAL SLUDGE/SOLIDS

A. Additional Land Application Requirements.

1. Routine aquatic weed control and regular maintenance of the percolation pond embankments and access areas are required. *[62-620.320(6)]*
2. The bottom for the percolation pond shall be cleaned out periodically, or when necessary, to remove the excess buildup of sediments, and to ensure continuous percolation capability for the percolation pond. Solids and sludges from this system shall be recovered and either disposed at a Class I landfill site authorized by the

Department to accept solid waste under Chapter 62-701, F.A.C. or, in the on-site ash storage/disposal area if authorized in the plant's coal combustion product/solid waste materials management plan mentioned in VI.A. below.

3. During normal plant operation, the freeboard of the percolation pond shall not be less than three feet except after rainfall events exceeding the 25-year, 24-hour storm event.

4. The licensee shall not discharge water from the percolation pond to surface waters of the State, except as authorized under NPDES permit FL0000159.

IV. DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE OF WASTEWATER FACILITIES REQUIREMENTS

A. General Operation and Maintenance Requirements

1. During the period of operation authorized by this license, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. The domestic wastewater facility shall be operated under the supervision of one or more operators certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category III, Class D facility and, at a minimum, operators with appropriate certification must be on the site as follows:

A Class D or higher operator for 2 visits/week on nonconsecutive days for a total of 1 hour/week. The lead/chief operator must be a Class D operator, or higher.

2. The licensee shall maintain the following records and make them available for inspection on the site of the licensed facility.

a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

b. Copies of all reports required by the license for at least three years from the date the report was prepared;

c. Records of all data, including reports and documents, used to complete the application for at least three years from the date the application was filed;

d. A copy of the current license;

e. A copy of any required record drawings; and

f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules.

[62-620.350]

B. Impoundment Operation and Maintenance

1. All impoundments used to hold or treat wastewater and other associated wastes shall be operated and maintained to prevent the discharge of pollutants to waters of the State, except as authorized under NPDES Permit Numbers FL0000159 and FL0036366.

2. Operation and maintenance of any impoundment shall be in accordance with all applicable State regulations. When practicable, piezometers or other instrumentation shall be used as a means to aid monitoring of impoundment integrity.

C. Impoundment Integrity Inspections

1. All impoundments shall be inspected annually by qualified personnel with knowledge and training in impoundment integrity. Annual inspections shall include observations of dike and toe areas for erosion, cracks or bulges, seepage, wet or soft soil, changes in geometry, the depth and elevation of the impounded water,

sediment or slurry, freeboard, changes in vegetation such as overly lush, dead or unnaturally tilted vegetation, and any other changes which may indicate a potential compromise to impoundment integrity.

2. Within 30 days after the annual inspection, a qualified, responsible officer shall certify to the Department that no breaches or structural defects resulting in the discharges to surface waters of the State and that no changes were observed which may indicate a potential compromise to impoundment integrity during the previous calendar year.

3. The certification shall also include a statement that the impoundments provides the necessary minimum wet weather detention volume to contain the combined volume for all direct rainfall and all rainfall runoff to the pond resulting from the 25-year, 24-hour rainfall event and maximum dry weather plant waste flows which could occur during a 24-hour period.

4. The licensee shall conduct follow-up inspections within 7 days after large (i.e., 25-year, 24-hour precipitation event or greater rainfall) or extended rain events.

5. In the event that the impoundment integrity is compromised and may result in a potential discharge to surfaces waters of the State, the licensee shall notify the Department within twenty-four (24) hours of becoming aware of the situation and provide a proposed course of corrective action and implementation schedule within fifteen (15) days after notifying the Department. Observed changes such as significant increases in seepage or seepage carrying sediment may be signs of imminent impoundment failure and should be addressed immediately.

D. Reporting and Recordkeeping Requirements for Impoundments

1. The summarized findings of all monitoring activities, inspections, and corrective actions pertaining to the impoundment integrity, and operation and maintenance of all impoundments shall be documented and kept on-site and made available to Department inspectors upon request.

2. All pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated certifications by qualified, Florida-registered professional engineer, and regulatory approvals, shall be kept on site in accordance with IV.A. above and made available to Department inspectors upon request.

V. OTHER SPECIFIC CONDITIONS

Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted as required by this GWMOMR shall be signed and sealed by the professional(s) who prepared them.

VII. FACILITY-WIDE GENERAL CONDITIONS

A. This license does not relieve the licensee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this license source; nor does it allow the licensee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The licensee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this license which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a licensee in an enforcement action that it would have been necessary to halt or reduce the licensee activity in order to maintain compliance with the conditions of this license. *[62-620.610(5)]*

B. The licensee shall report to the Department's Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the licensee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the licensee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

1. The following shall be included as information which must be reported within 24 hours under this condition:

- a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- d. Any unauthorized discharge to surface or ground waters.

2. Oral reports as required by this subsection shall be provided as follows:

a. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph B.1.d that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

- i. Name, address, and telephone number of person reporting;
- ii. Name, address, and telephone number of permittee or responsible person for the discharge;
- iii. Date and time of the discharge and status of discharge (ongoing or ceased);
- iv. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- v. Estimated amount of the discharge;
- vi. Location or address of the discharge;
- vii. Source and cause of the discharge;
- viii. Whether the discharge was contained on-site, and cleanup actions taken to date;
- ix. Description of area affected by the discharge, including name of water body affected, if any; and
- x. Other persons or agencies contacted.

b. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department's Southwest District Office within 24 hours from the time the permittee becomes aware of the circumstances.

3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southwest District Office shall waive the written report. *[62-620.610(20)]*

C. Bypass Provisions.

1. Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

2. Bypass is prohibited, and the Department may take enforcement action against a Licensee for bypass, unless the licensee affirmatively demonstrates that:

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The Licensee submitted notices as required under facility-wide General Condition VII.C.3. of this Attachment H.

3. If the licensee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The licensee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as under Facility-Wide General Condition VII.B of this Attachment H. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

4. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Facility-Wide General Condition VII.C.2. a through c of this Attachment H.

5. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Facility-Wide General Condition VII.C. 2 through 4 of this Attachment H.

D. Upset Provisions

1. A licensee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the licensee can identify the cause(s) of the upset;

b. The licensed facility was at the time being properly operated;

c. The licensee submitted notice of the upset as required in Facility-Wide General Condition VII.B of this Attachment H; and

d. The licensee complied with any remedial measures required in Facility-Wide General Condition VII.A of this Attachment H.

2. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the licensee.

3. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review. [62-620.610(23), F.A.C.]