APPENDIX 10.2.5

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT APPLICATION

Gainesville Renewable Energy Center Prevention of Significant Deterioration/ Air Construction Permit Application

Gainesville Renewable Energy Center
An American Renewables Company

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LIST OF ACRONYMS AND ABBREVIATIONS

°	degree
°F	degree Fahrenheit
µg/g	microgram per gram
µg/m^2/yr	microgram per square meter per year
µg/m^3	microgram per cubic meter
10^6 Btu/hr	million British thermal units per hour
AAQS	ambient air quality standard
acfm	actual cubic foot per minute
AERMAP	AERMOD modeling system terrain preprocessing program
AERMET	AERMOD modeling system meteorological preprocessing program
AERMOD	AMS/EPA regulatory model
AMS	American Meteorological Society
AQRV	air quality related values
ARP	acid rain program
ASME	American Society of Mechanical Engineers
AST	aboveground storage tank
BACT	best available control technology
BFB	bubbling fluidized bed
bhp	brake horsepower
bhp	brake horsepower
BPIP	Building Profile Input Program
Btu/ft^3	British thermal unit per cubic foot
Btu/gal	British thermal unit per gallon
Btu/lb	British thermal unit per pound
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CAMR	Clean Air Mercury Rule
CBL	convectively generated boundary layer
CDS	circulating dry scrubber
CEC	cation exchange capacity
CEMS	continuous emissions monitoring system
cfm-ft^2	cubic feet per minute-square foot
CFR	Code of Federal Regulations
CI	compression ignition
CMAQ	Community Multiscale Air Quality
CO	carbon monoxide
CO_2	carbon dioxide
COMS	continuous opacity monitoring system
DC	District of Columbia
DGS	Deerhaven Generation Station
DSI	dry sorbent injection

LIST OF ACRONYMS AND ABBREVIATIONS
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EAB	EPA's Environmental Appeals Board
ECT	Environmental Consulting & Technology, Inc.
EPA	U.S. Environmental Protection Agency
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
ESP	electrostatic precipitator
F.A.C.	Florida Administrative Code
F.R.	Federal Register
FAA	Federal Aviation Authority
FDEP	Florida Department of Environmental Protection
FGD	flue gas desulfurization
FGR	flue gas recirculation
FIP	federal implementation plan
FLAG	Federal Land Manager Air Quality Related Values Workgroup
FLM	Federal Land Manager
ft	foot
ft/sec	foot per second
ft^2	square foot
ft-agl	feet above ground level
ft-msl	feet above mean sea level
g/bhp-hr	gram per brake horsepower-hour
g/kWh	grams per kilowatt-hour
g/s	gram per second
GACT	generally available control technology
GAQM	EPA's Guideline on Air Quality Models
GeoTIFF	geo-referenced tagged image file format
GEP	good engineering practice
gpm	gallon per minute
gr/100 dscf	grain per 100 dry standard cubic foot
gr/dscf	grain per dry standard cubic foot
GRA	Gainesville Regional Airport
GREC	Gainesville Renewable Energy Center
GREC LLC	Gainesville Renewable Energy Center, LLC
GRU	Gainesville Regional Utilities
H_2SO_4	sulfuric acid
ha	hectare
HAP	hazardous air pollutant
HHV	higher heating value
hp	horsepower
hr/yr	hour per year
HSH	highest of the second- highest

ICE	internal combustion engine
IDSIS	in-duct sorbent injection system
IWAQM	Interagency Workgroup on Air Quality Modeling
JBR	jet bubbling reactor
JIA	Jacksonville International Airport
K	Kelvin
kg/ha/yr	kilogram per hectare per year
km	kilometer
kW	kilowatt
LAER	lowest achievable emission rate
lb/10^6 Btu	pound per million British thermal units
lb/hr	pound per hour
lb/MMBtu	pound per million British thermal units
lb/MW	pound per megawatt
lb/MWh	pound per megawatt-hour
lb/MWh	pound per megawatt-hour
LSFO	limestone-forced oxidation
m/sec	meter per second
MACT	maximum achievable control technology
MEL	magnesium enhanced lime
mg/L	milligram per liter
mg/m^3	milligram per cubic meter
MGD	million gallons per day
MMBtu/hr	million British thermal units per hour
MW	megawatt
NAAQS	national ambient air quality standard
NED/SRTM	National Elevation Dataset/Shuttle Radar Topography Mission
NESHAP	national emission standard for hazardous air pollutant
NGR	natural gas reburn
NH_3	ammonia
NMHC	nonmethane hydrocarbon
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NPS	National Park Service
NRCS	National Resources Conservation Service
NSPS	new source performance standard
NSR	new source review
NWA	National Wilderness Area
NWS	National Weather Service

OAQPS	Office of Air Quality Planning and Standards
OFA	overfire air
OSHA	Occupational Safety and Health Administration
PM	particulate matter
PM_{10}	particulate matter less than or equal to 10 micrometers
$PM_{2.5}$	fine particulate matter less than or equal to 2.5 micrometers
ppmvd	part per million by dry volume
ppmw	part per million by weight
PRIME	Plume Rise Model Enhancements
PSD	Prevention of Significant Deterioration
QA	quality assurance
RACT	reasonably available control technology
RACT	reasonably available control technology
RBLC	RACT/BACT/ LAER Clearinghouse
RICE	reciprocating internal combustion engine
RO	reverse osmosis
SBL	stable boundary layer
SCR	selective catalytic reduction
SDA	spray dryer absorber
SIL	significant impact level
SIP	state implementation plan
SNCR	selective noncatalytic reduction
SO_2	sulfur dioxide
SO_3	sulfur trioxide
STG	steam turbine generator
TDS	total dissolved solids
tph	ton per hour
tpy	ton per year
TSP	total suspended particulate
ULSD	ultra-low sulfur diesel
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey (USGS)
VOC	volatile organic compound
WBAN	Weather-Bureau-Army-Navy
WESP	wet electrostatic precipitator
yd^3	cubic yard
ZLD	zero liquid discharge