SC DEPARTMENT *of*
ENVIRONMENTAL
SERVICES

Canadys Station Project

October 20, 2026

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ENVIRONMENTAL SERVICES

- Air Quality
- Land & Waste Management
- Coastal Management
- Water
- Regional & Laboratory Services

Science • Service • Sustainability





Purpose

- Share information on the role of the S.C. Department of Environmental Services (SCDES) in permitting Canadys Station Project
- Summarize the BAQ draft PSD construction permit
- Answer questions
- 6:00 – Public Hearing on Air Permit

No decision will be made tonight.
Please sign in at the registration desk to receive notice of decision.

Previously submitted written & oral comments continue to be considered

How to Provide Comments



Recorded comments at tonight's public hearing



Email AirPNComments@des.sc.gov



Mail: Air Permitting Division Director
SCDES Bureau of Air Quality Permitting
2600 Bull Street
Columbia, SC 29201



ePermitting Portal "Dominion Energy South Carolina Inc Canadys Station"

Written comments may be submitted until October 27, 2026

Energy Infrastructure Projects

South Carolina's Energy Security Act was passed in 2025 by the Legislature and Signed by the Governor. SCDES and other state/local agencies must comply with timelines and processes outlined in the Act.



Dominion Energy South Carolina and Santee Cooper

- ❑ *Joint Applicants* for Canadys Station
- ❑ Defined scope of proposed project(s)
- ❑ Coordinate Federal, State & Local Regulatory Processes & Applications
- ❑ Implementation, if approved



Approvals for Energy Infrastructure

SCDES

Reviews permit application(s) in compliance with state laws and regulations for air, land, water, and coastal resources

Other Local, State, Federal Agencies

Responsible for evaluating and permitting the project in areas including zoning, compliance with land use standards, trucks on roadways, etc.

South Carolina Public Service Commission

The Public Service Commission of South Carolina (PSC) is the state agency that regulates public utilities, including electricity. Construction of facilities with a planned generation capacity of 75 MW or more must seek approval of the commission

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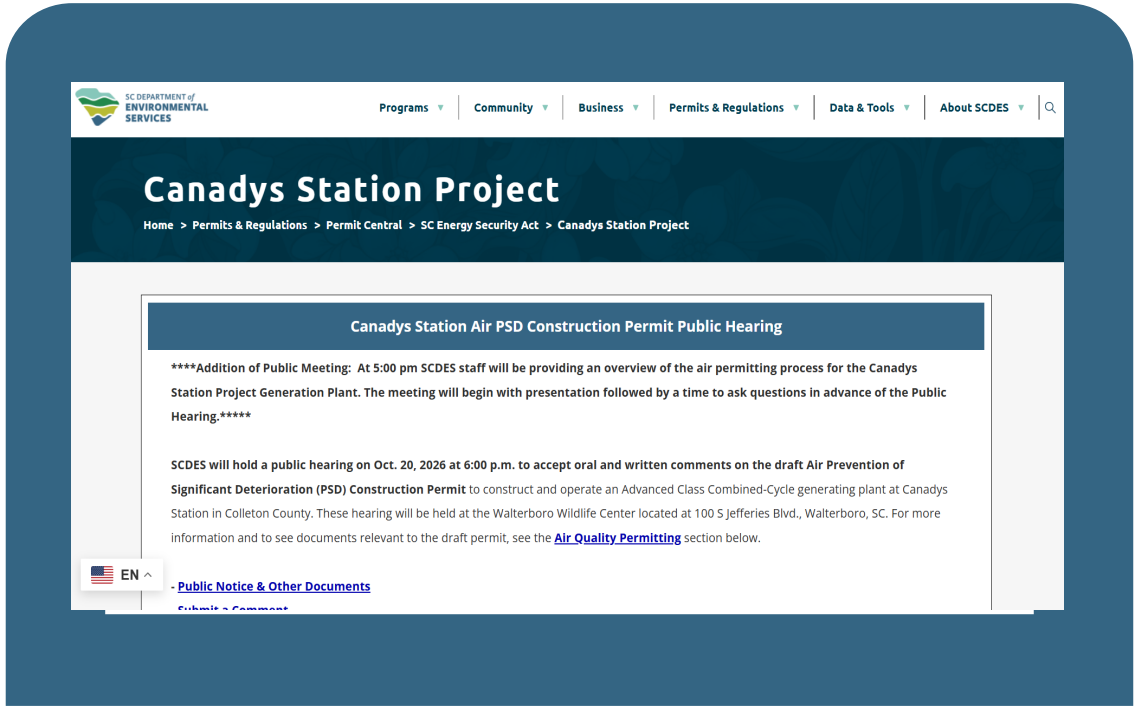
For a project the scale and scope of the proposed plant at Canadys Station Project, permit applications are not typically submitted at the same time.

Stormwater	Water Supply	Wastewater	Wetlands
• Application for *Canadys Station Combined Cycle Generating Plant – Phase 1/ Initial Grading Project* under review • Public Hearing held on September 22, 2026 • Staff continue to review application and public comments	• Joint Applicants requested approval to utilize groundwater for water supply • Permit issued in August	• Joint Applicants evaluating options for management of wastewater • No application submitted	• Joint Applicants working with the U.S. Army Corps of Engineers to determine extent and classification of wetlands on Project Site • No application submitted

*****Each application submitted for the project will receive an independent review for consistency with the state's Coastal Zone Management Act ****

Canadys Station Project Webpage



des.sc.gov/canadysplant

Air Permitting Process

Step 1. Application Submission

Step 2. Application Review

Step 3. Permit Drafting

Step 4. Public Comments Accepted

Step 5. Final Permit Decision

Step 6. Initial and Ongoing Compliance



Canadys Station BAQ Application Review and Regulatory Evaluation

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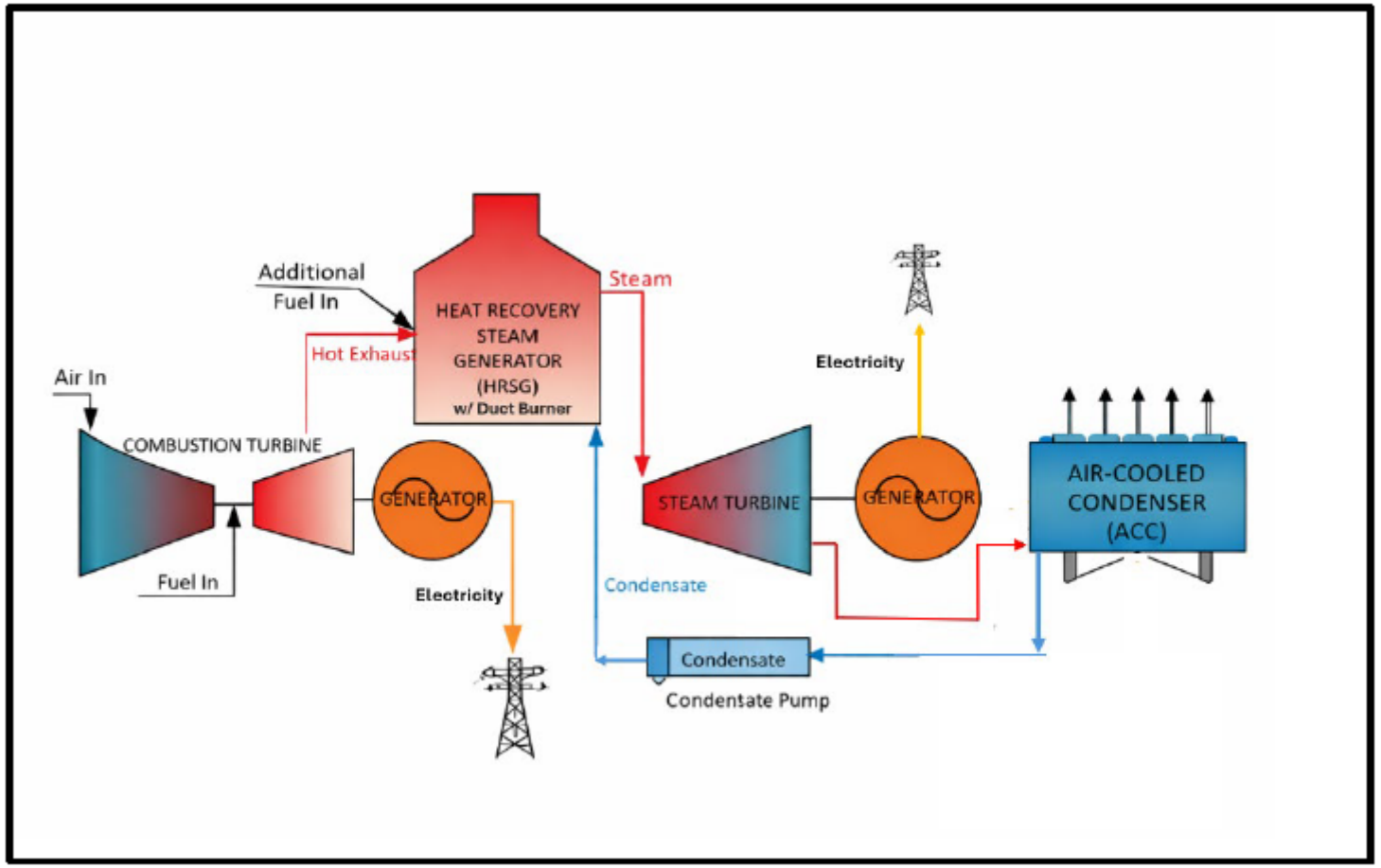
Description of Proposed Project

- 3 Combined Cycle Combustion Turbines (CCCTs)
- Each unit would consist of a combustion turbine, duct burner, and heat recovery steam generating unit
- The combined output would be approximately 2,200 Megawatts



This figure was included in the application for the proposed project.

Regulatory Requirements

- The application was reviewed to ensure the proposed project could comply with all applicable state and federal air quality regulations
- This project would be subject to SC Regulation 61-62.5, Standard 7 which requires a prevention of significant deterioration (PSD) construction permit when a regulated pollutant exceeds a significant threshold
- This project exceeds these thresholds for particulates (PM, PM_{10}, $PM_{2.5}$), sulfur dioxide (SO_2), sulfuric acid mist, carbon monoxide (CO), nitrogen oxides (NO_X), volatile organic compounds (VOCs), and greenhouse gases (GHGs) and would be required to meet strict emissions limits based on installing best available control technology.

What is BACT?

- A PSD construction permit requires facilities to use the best available control technology (BACT) to establish case-by-case limits and controls to reduce emissions for each pollutant
- BACT controls can include add-on control equipment, operation practices, and fuel types
- Limits take into account energy, environmental, and economic impacts
- A comparison to similar emission sources is also performed when establishing a limit
- Emerging control technologies must also be considered

Proposed BACT Controls

- NOx – Selective Catalytic Reduction and Water Injection
- CO and VOC – Catalytic Oxidation
- SO_2 and Sulfuric Acid Mist – Low sulfur fuels
- GHGs – Design and operational efficiencies
- Particulates – Use of inlet air filters, low ash/low sulfur fuels, and good combustion practices

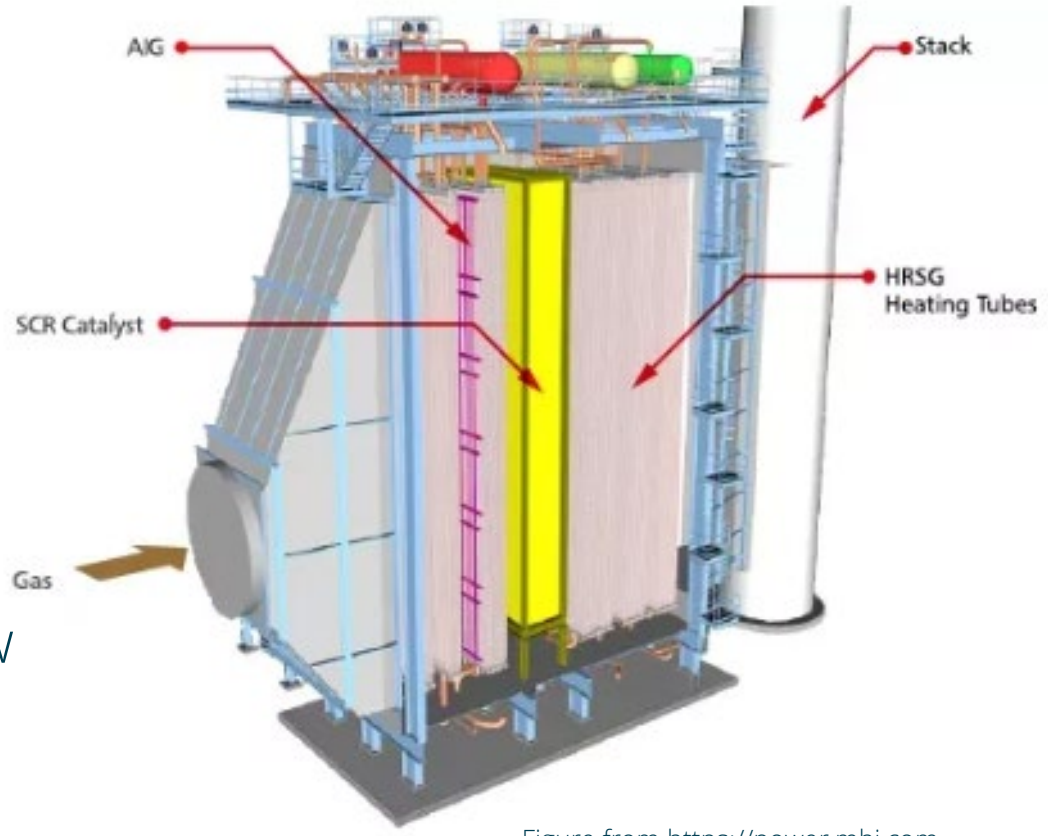


Figure from https://power.mhi.com

Periodic Monitoring for BACT Limits

Methods for demonstrating compliance with the BACT limits include:

- NOx and CO – will use continuous emission monitoring systems (CEMs)
- VOC- CatOx temperature monitoring and source testing
- SO_2 and Sulfuric Acid Mist – fuel supplier certifications
- Particulates – Inlet air filter inspections, source testing
- GHGs – Heat input records

Canadys Station Ambient Air Quality Demonstration

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Ambient Air Quality Analysis

Air dispersion modeling analyses performed for the Canadys Station project showed that facility-wide emissions would not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS) or other federal and state air quality standards. These standards exist to protect air quality for people and the environment.



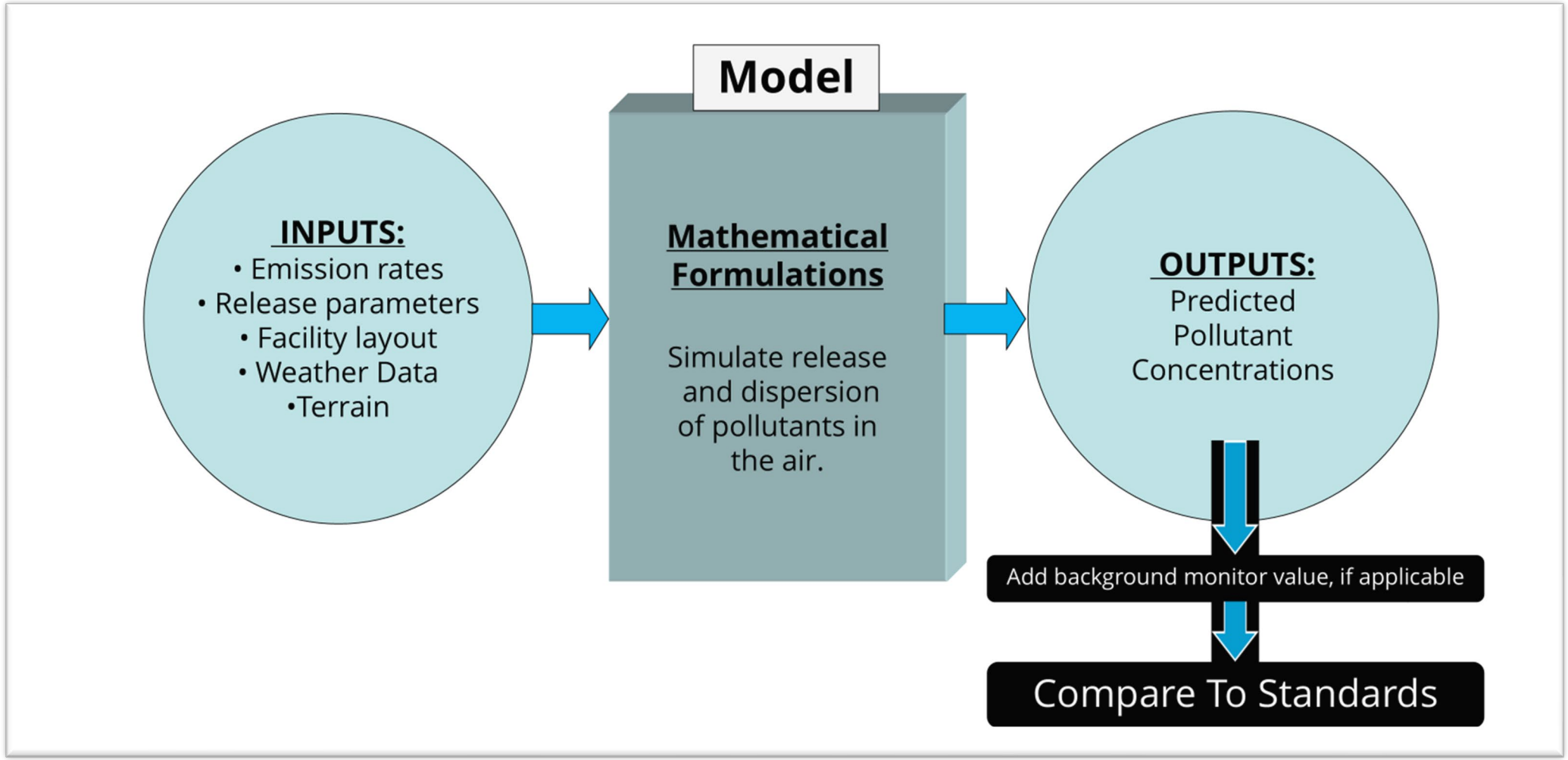
Air Dispersion Models

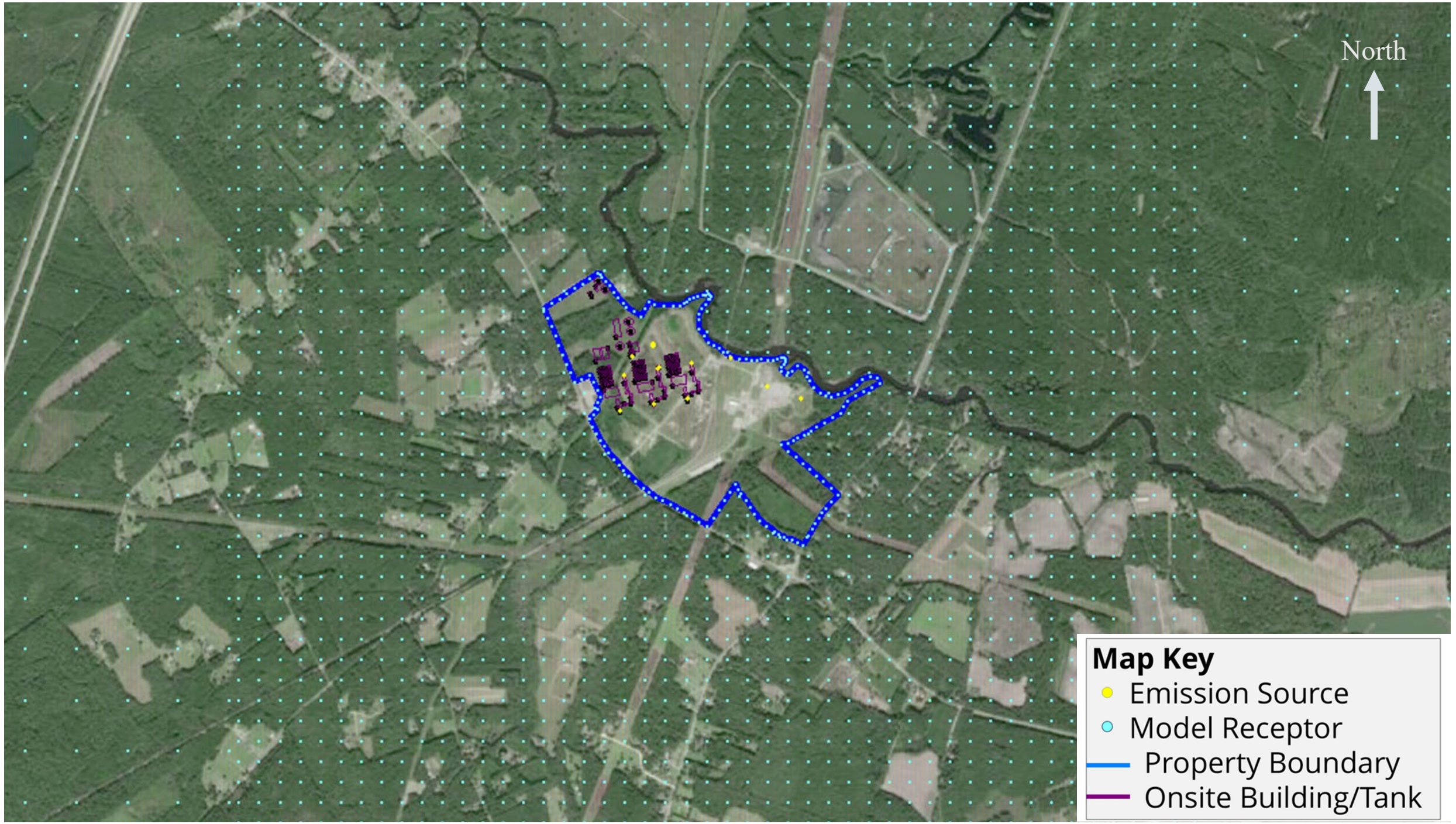
Mathematic/Scientific Tool(s) developed and approved by EPA and used by industry and regulators

Model Input Data:

- Source locations
- Exhaust parameters for each source (stack height, stack diameter, exit velocity, exit temperature)
- Emission rates by pollutant and source
- Receptor information (location/height of calculations)
- Building dimensions (height, length, width)
- Elevation data
- Meteorological data

Air Dispersion Modeling

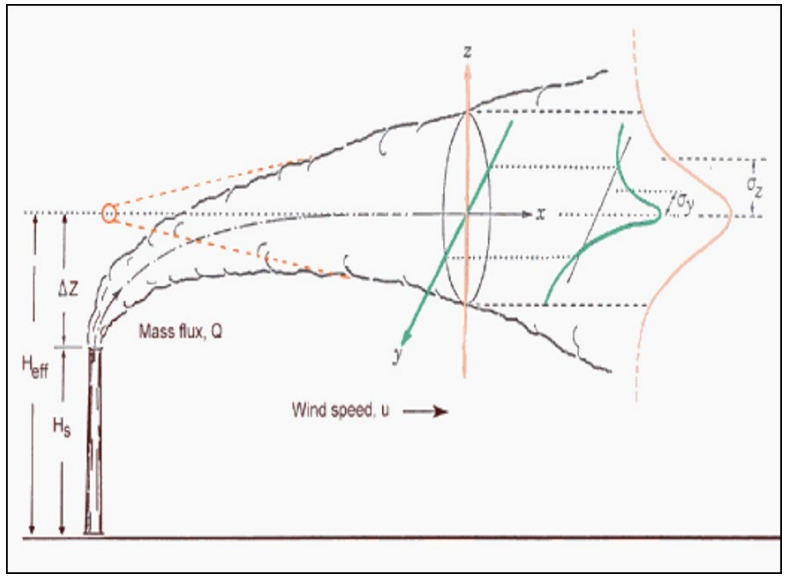



North
Map Key
Emission Source
Model Receptor
Property Boundary
Onsite Building/Tank

South Carolina Air Modeling Overview

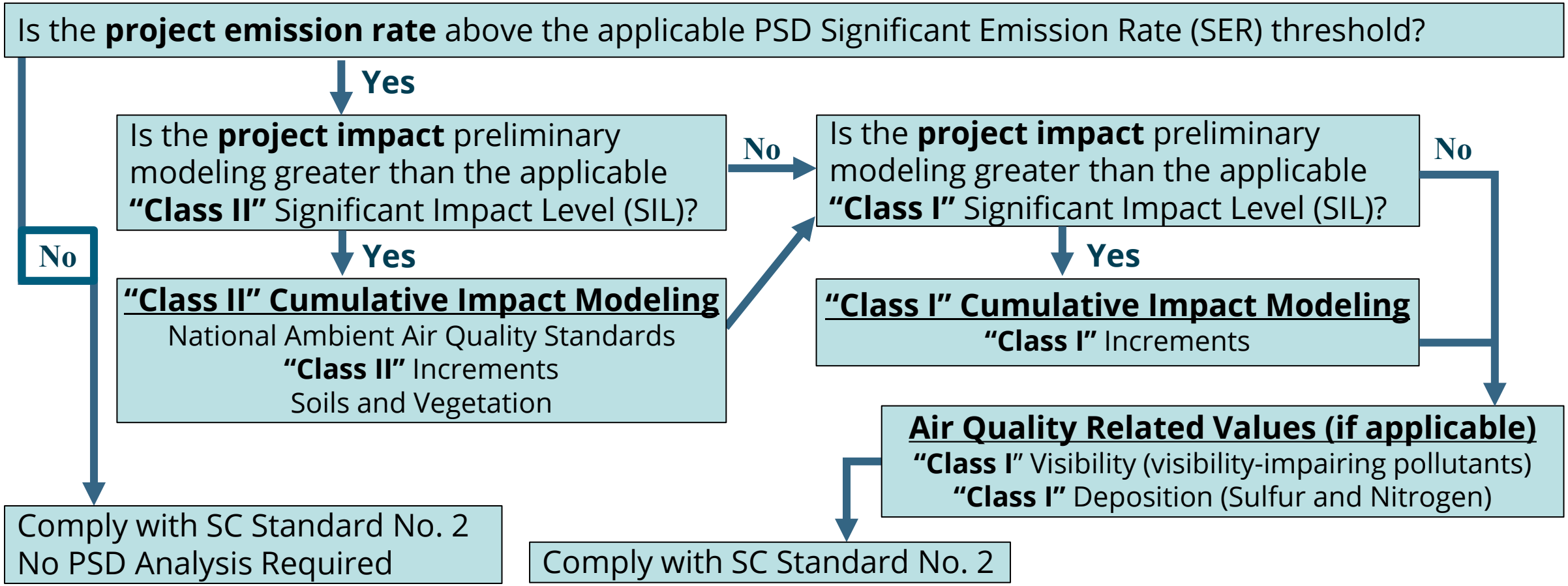
- Facilities in South Carolina are required to demonstrate that the emissions coming from their sources will not cause or contribute to the violation of any applicable South Carolina air pollution control regulations or standards.
  - SC Standard No. 2 criteria pollutant compliance demonstrations
  - SC Standard No. 8 toxic air pollutant compliance demonstrations

- PSD Additional Modeling Analyses
  - Significant Impact Analyses
  - Cumulative Impact NAAQS and Increments
  - Soils and Vegetation
  - Class I Significant Impacts
  - Class I Increments
  - Class I Air Quality Related Values (Soils, Visibility, Deposition)



PSD Modeling Analyses Flowchart

*This flowchart is applied for **each criteria pollutant (and each averaging period** associated with an ambient air standard, where modeling is required)



CUMULATIVE IMPACT NATIONAL AMBIENT AIR QUALITY MODELING ANALYSIS SUMMARY Dominion Energy South Carolina Inc Canadys Station						
Pollutant	**Averaging Time**	**Modeled Concentration ($\mu g/m^3$)**	**Background Concentration ($\mu g/m^3$)**	**Total Concentration ($\mu g/m^3$)**	**Standard ($\mu g/m^3$)**	**Percent of Standard (%)**
PM_{10}	**24-Hour**	4.9	37.0	42	150	28
$PM_{2.5}$	**24-Hour**	3.7*	12.7	16	35	46
	Annual	0.9*	7.0	7.9	9.0	88
SO_2	Maximum project impact results are less than the significance impact levels for all applicable averaging periods.					
NO_2	**1-Hour**	171.1	included	171	188	91
	Annual	11.2	11.9	23	100	23
CO	Maximum project impact results are less than the significance impact levels for all applicable averaging periods.					
Ozone	**8-Hour**	4.2 ppb*	61 ppb	65 ppb	70 ppb	93
These results demonstrate that the facility will comply with all relevant air quality standards.						
* Modeled results include secondary formation contribution.						

Additional Air Quality Analyses

- Cumulative Impact “Class II” Increments – Passed for all applicable pollutants and averaging periods
- Cumulative Impact Soils and Vegetation – Passed for all applicable pollutants and averaging periods
- “Class I” visibility screening and deposition modeling – Project impacts are less than thresholds established in Federal Land Managers’ Air Quality Related Values (AQRV) Report
- SC Standard No. 2 – Modeling demonstrates compliance for all standards

* EPA and SCDES reviewed and approved the PSD criteria pollutant modeling analyses.

* The Federal Land Manager and SCDES reviewed and approved AQRV modeling analyses.

Facilitated Question and Answers

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