



OFFICE OF AIR AND RADIATION

WASHINGTON, D.C. 20460

July 16, 2026

MEMORANDUM

SUBJECT: Clarification of Acid Rain Program Regulatory Provisions Concerning Islanded Power Generation Facilities

FROM: Aaron Szabo
Assistant Administrator
Office of Air and Radiation

TO: Regional Administrators, 1-10

Several companies and States recently contacted the U.S. Environmental Protection Agency (EPA) requesting clarity on certain regulatory provisions in the Acid Rain Program (ARP) in the context of “islanded” power generation facilities. This memorandum clarifies the applicability of these regulatory provisions in response to such inquiries; however, the EPA does not intend this memorandum to provide any final determination or Agency action concerning ARP applicability for any particular facility, and this memorandum does not address all scenarios in which the regulatory provisions at issue may apply.

For example, one company requested clarity regarding a planned power generation facility, consisting of approximately 500 megawatts (MW) of simple cycle natural gas-fired combustion turbines and reciprocating engines to exclusively power an adjacent, third-party owned data center. The planned power generation facility would be “islanded,” which means the facility has no physical connection to the utility grid.

The ARP, established under Title IV of the 1990 Clean Air Act Amendments, requires emission reductions of sulfur dioxide and nitrogen oxides from the power sector. In general, the ARP applies to fossil fuel-fired combustion devices owned or operated by a utility that serves a generator that produces electricity for sale.¹ As defined in EPA regulations implementing the ARP, *utility* means “any person that sells electricity,” and *generator* means a “device that produces electricity and was or would have been required to be reported as a generating unit pursuant to the U.S. Department of Energy [DOE] Form 860 (1990 edition).”²

¹ 40 CFR 72.6(a)(3)(i).

² 40 CFR 72.2; *see also* 42 U.S.C. 7651a(9) (definition of “generator”).

The 1990 edition of DOE Form 860 requires each electric utility that operates, or plans to operate within 10 years, a power plant to submit the form. DOE Form 860 (1990) defines *electric utility* to mean “a corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities within the United States for the generation, transmissions, distribution, or sale of electric energy primarily for use by the public.”

The EPA believes that, considering the plain text of these definitions, the ARP does not apply to power generation facilities that are not connected in any way to the larger electricity grid.

In particular, while a “utility” under ARP regulations includes any person that sells electricity, the 1990 edition of DOE Form 860 only covers those electricity generators who sell “electric energy primary for use by the public.” The EPA understands this language to necessitate grid connection. That is, a facility that generates electric energy exclusively for a private consumer’s use and is not connected to the grid does not fall within the scope of the reporting requirement in DOE Form 860 (1990).

If a company develops a power generation facility that is not grid connected, but at a future date the company does connect the facility to the grid, the facility may be subject to the provisions in the ARP. Among other things, such companies should bear in mind the ARP permitting requirements found in 40 CFR Part 72 in their planning. This memorandum does not address the specifics of a situation like that, including other potential bases for exclusion or exemption from ARP requirements, such as those available to cogeneration facilities or solid waste combustors.³

This memorandum also does not address the applicability criteria for any other statutory provisions, regulations, or programs under the CAA. In addition, the EPA notes that ARP permitting programs generally are implemented through State air agencies under approved programs. Sources are advised to consult with their respective State permitting authorities, as States’ ARP permitting regulations may vary in certain respects from Federal requirements. Because this memorandum does not provide any final determination concerning the applicability of the ARP as to any specific source, the EPA does not intend for this memorandum to constitute final agency action.

If you have further questions, please contact my office, or your staff may contact David Cozzie in the EPA’s Office of Clean Air Programs at cozzie.david@epa.gov.

Attachments:

1. DOE Form 860 (1990 Edition)

³ See generally 40 CFR 72.6.

**Annual Electric Generator Report
for the Year Ending December 31, 1990**

This report is mandatory under Public Law 93-275, the Federal Energy Administration Act of 1974. Information reported on the form EIA-860 is not considered confidential. Public reporting burden for this collection of information is estimated to average 16.1 hours per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this form, its burden estimate, or any aspect of the data collection to the Energy Information Administration, Office of Statistical Standards EI-73, Mail Station: 1H-023 Forrestal, Washington, D.C. 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. Questions and correspondence concerning the report will be answered by Mrs. Elsie Bess (202) 254-5637. To be completed by, or on behalf of, those utilities operating electric power plants.

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Schedule I

Identification and Certification

1. Operating utility: EIA utility code: Name:

2. Respondent Mailing Address:

Return completed form to:

U.S. Department of Energy
Energy Information Admin. EI-541
Mail Stop: BG-094 (EIA-860)
Washington, D.C. 20585

3. Contact Person:

Name:

Title:

Telephone: () Ext.

4. Certifying Official

Name:

Title:

Date:

Signature: _____

Notes:

Annual Electric Generator Report
for the Year Ending December 31, 1990

Utility Code:
Utility Name:

Schedule II
Power Plant Site Information

Page :

(Existing Power Plants and Those Planned for Initial Operation Within 10 Years)

Section A

1. Plant	Plant Name _____ County Name _____ State _____ Zip Code _____							
	Elevation (ft) _____	Name of Water Source (Cooling or Hydroelectric) _____			Nonutility Use: _____	Cooling Codes _____		
2. Additional Hydroelectric Plant Information	Hydroelectric Project No. _____ Name _____			Acre of Pools (acres): Upper _____ Lower _____		Drainage Area (Sq. Mi.) _____		
	Normal Full Upper Pool: _____	Max. Draw Down (ft.) _____	Usable Storage (acre ft.) _____	Elevation (ft.) _____	Gross Head: (ft.) _____	Design (ft.) _____	Kind of Plant _____	

Section B

1. Plant	Plant Name _____ County Name _____ State _____ Zip Code _____							
	Elevation (ft) _____	Name of Water Source (Cooling or Hydroelectric) _____			Nonutility Use: _____	Cooling Codes _____		
2. Additional Hydroelectric Plant Information	Hydroelectric Project No. _____ Name _____			Acre of Pools (acres): Upper _____ Lower _____		Drainage Area (Sq. Mi.) _____		
	Normal Full Upper Pool: _____	Max. Draw Down (ft.) _____	Usable Storage (acre ft.) _____	Elevation (ft.) _____	Gross Head: (ft.) _____	Design (ft.) _____	Kind of Plant _____	

Section C

1. Plant	Plant Name _____ County Name _____ State _____ Zip Code _____							
	Elevation (ft) _____	Name of Water Source (Cooling or Hydroelectric) _____			Nonutility Use: _____	Cooling Codes _____		
2. Additional Hydroelectric Plant Information	Hydroelectric Project No. _____ Name _____			Acre of Pools (acres): Upper _____ Lower _____		Drainage Area (Sq. Mi.) _____		
	Normal Full Upper Pool: _____	Max. Draw Down (ft.) _____	Usable Storage (acre ft.) _____	Elevation (ft.) _____	Gross Head: (ft.) _____	Design (ft.) _____	Kind of Plant _____	

Specify with a "Y" which, if any of the above are mobile plants. A. _____ B. _____ C. _____

Notes:

Check ☐ if no change to preprinted data on this page.

**Annual Electric Generator Report
for the Year Ending December 31, 1990**

Utility Code: _____
Utility Name: _____

**Schedule III
Generator Information
(Existing Generators and those Planned for Initial Operation within 10 Years)**

Page: _____

Section A

1. Generator	Plant Name _____	Generator Id. _____	Prime Mover _____	Unit Code _____
2. Existing Generators	Maximum Generator Capacity (kW) _____	Service Type _____	Status Code _____	First Electricity Date(Mo/Yr) ____/____/____
	Energy* Source(s) _____	Heat Rate (Btu/kWh) _____	Net Capability (kW) _____	Commercial Operation Date(Mo/Yr) ____/____/____
			Summer _____	Start up Fuels _____
3. Proposed Generator or Actual and Proposed Changes	Maximum Generator Capacity (kW) _____	Status Code _____	Retire/Cancel Date(Mo/Yr) ____/____/____	First Electricity Date(Mo/Yr): Original ____/____/____
	Cancel/Delay Reasons _____	Energy Source(s)* _____	Proposed Net Capability (kW) _____	Current ____/____/____
		Prime Mover _____	Summer _____	Winter _____

Section B

1. Generator	Plant Name _____	Generator Id. _____	Prime Mover _____	Unit Code _____
2. Existing Generators	Maximum Generator Capacity (kW) _____	Service Type _____	Status Code _____	First Electricity Date(Mo/Yr) ____/____/____
	Energy* Source(s) _____	Heat Rate (Btu/kWh) _____	Net Capability (kW) _____	Commercial Operation Date(Mo/Yr) ____/____/____
			Summer _____	Start up Fuels _____
3. Proposed Generator or Actual and Proposed Changes	Maximum Generator Capacity (kW) _____	Status Code _____	Retire/Cancel Date(Mo/Yr) ____/____/____	First Electricity Date(Mo/Yr): Original ____/____/____
	Cancel/Delay Reasons _____	Energy Source(s)* _____	Proposed Net Capability (kW) _____	Current ____/____/____
		Prime Mover _____	Summer _____	Winter _____

Section C

1. Generator	Plant Name _____	Generator Id. _____	Prime Mover _____	Unit Code _____
2. Existing Generators	Maximum Generator Capacity (kW) _____	Service Type _____	Status Code _____	First Electricity Date(Mo/Yr) ____/____/____
	Energy* Source(s) _____	Heat Rate (Btu/kWh) _____	Net Capability (kW) _____	Commercial Operation Date(Mo/Yr) ____/____/____
			Summer _____	Start up Fuels _____
3. Proposed Generator or Actual and Proposed Changes	Maximum Generator Capacity (kW) _____	Status Code _____	Retire/Cancel Date(Mo/Yr) ____/____/____	First Electricity Date(Mo/Yr): Original ____/____/____
	Cancel/Delay Reasons _____	Energy Source(s)* _____	Proposed Net Capability (kW) _____	Current ____/____/____
		Prime Mover _____	Summer _____	Winter _____

Notes: * These are listed in order of predominance of quantity of Btus consumed during the prior year.

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**Annual Electric Generator Report
for the Year Ending December 31, 1990**

Utility Code.:
Utility Name:

**Schedule IV
Ownership of Generators Owned Jointly or by Others**

Page :

Line No.	Power Plant Name (a)	Generator Id. (b)	Prime Mover (c)	Utility, Owner, or Participant Name (d)	Percent Ownership (e)	Notes
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Notes:

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Annual Electric Generator Report
for the Year Ending December 31, 1990

Utility Code.:
Utility Name:

Schedule V

Page :

Coal-Fired Steam Generating Units: Planning, Engineering, and Construction Milestones

Power Plant Name _____

Generator Id. Code _____

Line No.	Milestones	Planned Date (Month/Year)	Actual Date (Month/Year)
1.	Begin Assessment of Water Rights and Supply	/	/
2.	Obtain Site Access to Begin Environmental Monitoring	/	/
3.	Obtain Site Certification from State Agency (if necessary)	/	/
4.	Begin Conceptual Engineering	/	/
5.	Award Contract to Boiler Supplier	/	/
6.	Begin Design of Coal-Handling System	/	/
7.	Begin Stack Diffusion and Height Analysis	/	/
8.	Complete filing for Major Permits	/	/
9.	Begin Fabrication of Boiler House Structural Steel	/	/
10.	Begin Procuring Materials and Mobilizing Site Preparation	/	/
11.	Issue Construction Permits	/	/
12.	First Concrete Pouring for Boiler Construction	/	/
13.	Begin Erecting Boiler House Structural Steel	/	/
14.	First Concrete Pouring for Stack Construction	/	/
15.	Begin Raising Boiler Drum (or Pressure Parts)	/	/
16.	Complete Boiler House	/	/
17.	Cooling Tower/Mechanism Complete: Ready for Testing	/	/
18.	Boiler Completed and Ready for Cleaning	/	/
19.	Initial Testing and Check-Out Procedure	/	/
20.	Available for Initial Operation	/	/

Notes:

Check ☐ If no change to preprinted data on this page.

Check ☐ If page not applicable.

FORM EIA-860
ANNUAL ELECTRIC GENERATOR REPORT - 1990

GENERAL INFORMATION

I. PURPOSE

Form EIA-860 collects information for the Energy Information Administration (EIA) on the status of operable electric generating plants and associated equipment in operation and those scheduled for initial operation within 10 years of the filing of this report, in the United States.

The data from this form are used to accurately maintain the frame of all electric power plants and their associated generators operated by electric utilities, and to provide input for various EIA models and EIA publications including the *Inventory of Power Plants in the United States*.

II. WHO MUST SUBMIT

This report is to be completed by each electric utility that operates, or plans to operate within 10 years of the filing of this report, a power plant in the United States. The operator, or planned operator of jointly owned plants, should be the only respondent for those plants. For the purpose of this report, an electric utility is a corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities within the United States for the generation, transmission, distribution, or sale of electric energy primarily for use by the public.

III. WHAT AND WHERE TO SUBMIT

Mail one copy of the completed Form EIA-860 in the enclosed envelope, or in your own envelope, to:

U. S. Department of Energy
Energy Information Administration, EI-541
Mail Stop: BG-094 (Form EIA-860)
Washington, D. C. 20585

Retain a completed copy of this form for your files. For additional information, write to the above address or call:

Mrs. Elsie Bess
Telephone (202) 254-5637.

IV. WHEN TO SUBMIT

Submit this form on or before February 15 following the close of the calendar year.

V. SANCTIONS AND CONFIDENTIALITY STATEMENTS

The timely submission of Form EIA-860 is mandatory under the Federal Energy Administration Act of 1974 (Public Law 93-275). Late filing, failure to file, keep records, or comply with these instructions may result in criminal fines, civil penalties, and other sanctions as provided by section 13 (l) of the Act. Information reported on the Form EIA-860 is not considered confidential.

GENERAL INSTRUCTIONS

(CHANGES IN THE INSTRUCTIONS FOR THIS REPORTING YEAR APPEAR IN ITALICS)

1. Verify all preprinted information; if incorrect, line through the incorrect entry and provide the correct information. Provide any missing information. *Typed or legible handwritten entries are acceptable. Whether typed or handwritten, line through the incorrect entry first, then type or write the correct entry above the printed entry. Allow the original entry to remain readable.*
2. Check all data for consistency if the same or related data appear in more than one schedule of this or other forms or reports submitted to EIA. Explain any inconsistencies under "Notes."
3. For planned power plants or generators, use planning data to complete the form.
4. Report in whole numbers (i.e., no decimal points), except where explicitly instructed to report otherwise.
5. Use a parentheses sign for reporting negative numbers.
6. Furnish information for the electric utility as it existed at the end of the calendar year (December 31).
7. Report date information as a two-digit month and four-digit year, e.g., "03/1980."
8. Furnish the requested information to reflect the status of your current or planned operations as of the end of the calendar year. If the utility no longer operates a power plant, place an asterisk (*) before the power plant's name in Schedule II, and report the current operator under "Notes." Do not complete the form for that power plant.

SPECIFIC INSTRUCTIONS**(CHANGES IN THE INSTRUCTIONS FOR THIS REPORTING YEAR APPEAR IN ITALICS)****SCHEDULE I - IDENTIFICATION AND CERTIFICATION**

1. **EIA Utility Code and Name:** Verify the utility name which is relevant to this information. Utility code will be entered by the EIA.
2. **Respondent Mailing Address:** Verify the name and address to which this form should be mailed. Include an attention line, room number, building designation, etc., to facilitate the future handling and processing of this form (EIA-860).
3. **Contact person:** Verify the name, title, and telephone number including area code of the individual to be contacted concerning the information provided on this form.
4. **Certifying Official:** Enter the name and title of the certifying official, and the date the certifying official signs the form.

SCHEDULE II - POWER PLANT SITE INFORMATION

Part 1. Verify or complete one section for each existing power plant and for each power plant planned for initial operation within 10 years.

- a. **Plant Name:** Enter the name of the power plant. Enter "NA 1," "NA 2," etc., for planned facilities that have no name(s). Each power plant must be uniquely identified. *The type of plant does not need to be a part of the plant name, e.g., "Plant x Hydro" needs to be reported as "Plant x" only. There may be more than one prime mover type associated with a single plant name (single site). The type of plant is recognized by the prime mover code(s) reported in Schedule III.*
- b. **County Name:** Enter the county in which the plant is (will be) located. Enter "NA" for planned facilities that have not been sited. If a mobile power plant, indicate this with a "Y" at the bottom of the page and report all data based on its current location.
- c. **State:** Enter the two-letter U.S. Postal Service abbreviation for the State in which the plant is located. Enter "NA" for planned facilities for which the State has not been determined. If the State is "NA," the county name must be "NA."

- d. **Zip code:** Enter the zip code of the plant. Provide, at a minimum, the five-digit zip code; however, the nine-digit code is preferred.
- e. **Elevation:** Enter the elevation of the ground floor of the main generator in feet above mean sea level for non-hydroelectric plants. (See Part 2, Item f, for hydroelectric plants.)
- f. **Name of Water Source:** Enter the source of water used for cooling the condenser or for generating hydroelectric power. Enter "municipality" if water is from a municipality. Enter "wells" if water is from wells. If more than one water source is (will be) used, enter the most significant and list the other water source(s) under "Notes." Enter "NA" for planned facilities for which the source is unknown.
- g. **Nonutility Use:** Does the power plant produce steam or hot water for nonutility use? Enter one of the following codes:

S Steam	H Hot Water
B Both	N None
U Unknown, if appropriate, for planned facilities.	
- h. **Cooling Codes:** Enter up to three of the following codes:

NO None (No boilers or reactors)
OC Once Through with Cooling Pond(s) or Canal(s)
OF Once Through, Fresh Water
OS <i>Once Through, Saline or Brackish Water</i>
RC Recirculating with Cooling Pond(s) or Canal(s)
RF Recirculating with Forced Draft Cooling Tower(s)
RN Recirculating with Natural Draft Cooling Tower(s)
OT Other (describe under "Notes")
NA Not Applicable.

Part 2. Verify or complete for each existing hydroelectric power plant and for each hydroelectric power plant planned for initial operation within 10 years. For planned plants, report the data if known; otherwise, leave blank.

- a. **Hydroelectric Project Number and Name:** Enter the Federal Energy Regulatory Commission hydroelectric license project number and name for each hydroelectric power plant.

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- b. **Area of Pools:** Enter in acres the area of the upper pool for storage and pumped storage plants. Also, enter in acres the area of the lower pool for pumped storage plant.
- c. **Drainage Area:** Enter, in square miles, the drainage area for run-of-river and storage plants.
- d. **Maximum Drawdown:** Enter the maximum drawdown, in feet, of the upper pool under normal, full conditions for storage and pumped storage plants.
- e. **Usable Storage:** Enter, in acre-feet, the upper pool usable storage under normal, full conditions for storage and pumped storage plants.
- f. **Elevation:** Enter, in feet, the normal full upper pond elevation from mean sea level for storage and pumped storage plants.
- g. **Gross Head:** Enter, in feet, the normal full pond elevation minus tailwater elevation for all plants.
- h. **Design Head:** Enter, in feet, the design head of the turbine. If more than one design head is applicable, place an asterisk (*) in the space provided and report under "Notes."
- i. **Kind of Plant:** Enter one of the following codes to describe the kind of hydroelectric plant being reported:
 PP Pipeline PS Pumped Storage
 RR Run-of-River ST Storage

SCHEDULE III - GENERATOR INFORMATION

Part 1. Verify or complete for each operable or proposed generator. Complete a section for each generator as determined by the following: (1) is in operation (whether active or inactive) or (2) is expected to be operable within 10 years and is either planned or under construction. Do not report on auxiliary or house generators. Multiple generators operated together (i.e., cross-compound) should be reported with one generator ID.

- a. **Plant Name:** Enter the name of the power plant as reported on Schedule II.
- b. **Generator ID:** Enter the generator identification codes commonly used by plant management. These should be a maximum of four characters and the same codes as reported on other EIA forms. *Each generator should be uniquely defined within a plant, and the generator identification should not change once it has been defined. Once a*

generator's identification is entered into the EIA data files, it retains that identification for future reporting and for future analysis of data. As generators are retired from service, their status is changed. The generator identification and related data remain in the data files. Enter "NA1," "NA2," etc., for planned generators for which no permanent identification code has been selected.

- c. **Prime Mover:** Enter one of the following prime mover codes:
For combined cycle units, a prime mover should be reported for each generator.

- CA Combined Cycle Steam Turbine With Supplementary Firing
- CT Combined Cycle Combustion Turbine
- CS Combined Cycle - Single Shaft (gas turbine and steam turbine share a single generator)
- CW Combined Cycle Steam Turbine - Waste Heat Boiler Only
- FC Fuel Cell (electrochemical)
- GE Steam Turbine (geothermal)
- GT Combustion (gas) Turbine
- HC Hydraulic Turbine (conventional)
- HL Hydraulic Turbine (pipeline)
- HR Hydraulic Turbine-Reversible (pumped storage)
- IC Internal Combustion (Diesel)
- JE Jet Engine
- NB Steam Turbine - Boiling Water Nuclear Reactor
- NG Steam Turbine - Graphite Nuclear Reactor
- NH Steam Turbine - High-Temperature Gas Nuclear Reactor
- NP Steam Turbine - Pressurized Water Nuclear Reactor
- OC Ocean Thermal Turbine
- SP Photovoltaic
- SS Steam Turbine - Solar
- ST Steam Turbine - Boiler
- NA Unknown at this time
- WT Wind Turbine
- OT Other (describe under "Notes")

"Specify in "Notes" if part of a "fluidized bed" combustion operation.

- d. **Unit Code:** Identify all generators that are operated with other generators as a single unit. Generators operating as a single unit should have the same four-character unit code. These generators should have a single heat rate and (aggregate) capability. The four-character unit code is entered by EIA. If generators do not operate as a single unit, this space should be left blank.

Part 2. Verify or complete for each operable generator.

- a. **Maximum Nameplate Generator Capacity:** Enter the maximum nameplate capacity of the generator in kilowatts. If the nameplate capacity is expressed in kilovoltamperes, convert to kilowatts by multiplying the power factor by the kilovoltamperes. If more than one capacity appears on the nameplate, report the highest capacity.
- b. **Service Type:** Enter one of the following generator service type codes based on the most frequent utilization of the generator:
 B Base load (operates continuously)
 C Cycling or intermediate
 P Peaking load
- c. **Status Code:** Enter the status of the generator as of the end of the year using one of the following codes:
 OP In commercial service (operating or temporarily out of service less than 365 days)
 OS Out of Service (365 days or longer)
 SB Standby (or inactive reserve, i.e., not normally used, but available for service).
 SC Cold Standby (Reserve): deactivated (mothballed), in long-term storage and cannot be made available for service in a short period of time; usually requires 3 to 6 months to reactivate.
 TS Construction is complete and generator is available to provide power to the grid, but generator is not yet in commercial operation.
- d. **First Electricity Date:** Enter the month and year the generator first became available to provide power to the grid. For nuclear, enter the month and year in which the Nuclear Regulatory Commission issued the reactor's full power operating license, e.g., "10/1973." Report the first electricity date(s) following major generator modification(s) under "Notes." If the utility purchased the generator from a nonutility and installed it in the electric utility's system, the first electricity date for the generator is the month and year in which the generator became available to provide power to the grid after being installed in the electric utility's system.
- e. **Commercial Operation Date:** Enter the month and year that control of generator was turned over to the dispatcher, e.g., "02/1974."
- f. **Start-up Energy Sources:** Enter up to three codes to describe the energy sources used for startup or flame stabilization. Enter the codes

according to predominance of use of these energy sources, where predominance is based on the quantity of Btu's consumed during the calendar year.

ANT	Anthracite	BFG	Blast-Furnace Gas
BIT	Bituminous Coal	COG	Coke-oven Gas
COL	Coal (Generic)	COM	Coal-Oil Mixture
CRU	Crude Oil	CWM	Coal-Water Mixture
FO1	No. 1 Fuel Oil	FO2	No. 2 Fuel Oil
FO4	No. 4 Fuel Oil	FO5	No. 5 Fuel Oil
FO6	No. 6 Fuel Oil	GAS	Gas (Generic)
GST	Geothermal Steam	JF	Jet Fuel
KER	Kerosene	LIG	Lignite
LNG	Liquefied Natural Gas	LPG	Liquefied Propane Gas
MF	Multifueled (2 or more fuels burned simultaneously not as a mixture)	MTH	Methanol
		NG	Natural Gas
		PET	Petroleum (Generic)
		PC	Petroleum Coke
REF	Refuse, Bagasse, or Other Nonwood Waste	PL	Plutonium
RRO	Re-Refined Motor Oil	RG	Refinery Gas
STM	Steam	SNG	Synthetic Natural Gas (Coal Gasification)
SUB	Subbituminous Coal	SUN	Solar
TOP	Topped Crude Oil	UR	Uranium
WAT	Water	WD	Wood and Wood Waste
WH	Waste Heat	WND	Wind
OT	Other (describe under "Notes")	NA	Not Available

*These energy sources are valid only for planned generators.

- g. **Energy Sources:** Enter up to three energy sources used, in order of their predominance of use, where predominance is based on the quantity of Btu's consumed. Use the codes provided under start-up energy sources. Include energy source(s) that the generator was capable of using, although the energy source(s) may not have been used for electricity generation in the reporting year. For example, the first energy source should be the one from which the greatest quantity of Btu's was consumed for the generation of electricity; the second and third energy sources should be ranked according to next-higher Btu's and/or any other energy source capable of being used as a primary fuel. For generators that are out of service for an extended period or on standby, report the energy sources based on the generator's latest operating experience.
- h. **Heat Rate (Btu/kWh):** Enter the tested heat rate under full load conditions for all generators that derive their energy from combustion or fission of fuel. Report the heat rate as the fuel consumed in British thermal units (Btu's) necessary to generate one net kilowatthour of

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electric power. Report the heat rate based on the primary energy source. Report the tested heat rate under fuel load, not the actual heat rate for the year which is the quotient of total Btu's consumed and total net generation. If generators are tested as a unit (not tested individually), report the same test result for each generator. For generators that are out of service for an extended period or on standby, report the heat rate based on the unit's latest test.

- i. **Net Capability (kW):** Enter the generator's (unit's) summer and winter net capabilities for the primary energy source. For generators that are out of service for an extended period or on standby, report the capabilities based on the generator's latest operating experience.

Part 3. Verify or complete for each generator planned, retired, canceled, under construction, planned for retirement, sold to nonutility, planned for modifications, or planned for reactivation from retirement, as applicable.

Complete this part for each generator as determined by the following: is existing and is either proposed for conversion to another energy source, proposed for other modifications or scheduled for retirement within 10 years; is not yet operable, but is expected to be operable within 10 years; or has been retired, sold, canceled or postponed; previously retired but expected to be reactivated to generate within 10 years.

- a. **Maximum Generator Nameplate Capacity (kW):** Enter the nameplate capacity in kilowatts, of any new generator that is expected to become operable within the next 10 years, any existing generator that will undergo any life extension, repowering, fuel conversion, or other modification, or any previously retired generator that is expected to be reactivated within the next 10 years.

- b. **Status Code:** Enter one of the following status codes:

CN	....	Canceled
CO	....	New Unit Under Construction
FC	....	Existing Generator Planned for Conversion to Another Fuel or Energy Source
IP	....	Planned Generator Indefinitely Postponed
LE	....	Proposed for Life Extension
LP	....	Low Power Testing (Nuclear only)
MO	....	Proposed Modification of Existing Generator Other Than for Conversion to Another Energy Source, Life Extension, or Repowering
PL	....	Planned (proposed unit, but not under construction)
RA	....	Previously retired generator planned for reactivation
RP	....	Proposed for Repowering (specify technology in "Notes")

RE	....	Retired (no longer in service and not expected to be returned to service)
RT	....	Existing Generator Scheduled for Retirement
SD	....	Sold to nonutility for operation by nonutility (specify name of nonutility in "Notes")
OT	....	Other (describe in "Notes")

- c. **Retire/Cancel Date:** Enter the date (month/year, e.g., "12/1995") under the following conditions:

CN	....	Date the decision was made to cancel either the plans for or the construction of the generator. For nuclear, enter the date the utility requested the Nuclear Regulatory Commission (NRC) to withdraw its construction permit for the reactor.
IP	....	Date the decision was made to postpone either the plans for or the construction of the generator.
RE	....	Date the generator was retired.
RT	....	Date the utility plans to retire the generator.
SD	....	Date the generator was sold to a nonutility for operation by nonutility.

- d. **First Electricity Date:** Enter the date (month/year, e.g., "12/1995") the generator was originally scheduled, and the date the generator is currently scheduled to start generating electricity after construction or modification is complete, or reactivation is effective. Report the date only if Status Code is "CO," "FC," "LE," "LP," "MO," "PL," "RA," or "RP."

- e. **Cancel/Delay/Postpone Reasons:** Enter up to three codes, in their order of significance, to indicate the reason(s) for the generator's delay or cancellation. If the original and current dates of operation are different, or if the Status is answered "CN" or "IP", enter one of the following codes:

AP	....	Prolonged procedures to obtain Federal, state or local approvals
DE	....	Delay of associated facilities, e.g., transmission lines, transformers
DI	....	Natural disaster
EF	....	Equipment failure or faulty installation
EQ	....	Late delivery of equipment
FI	....	Financial or economic problems
LA	....	Labor Problems
LE	....	Environmental, site, or legal challenges
LO	....	Revised load forecast
RE	....	Changes in regulatory requirements
ST		Manufacturing, construction, or transportation strikes
OT		Other (describe under "Notes")

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- f. Energy Sources:** If the Status Code is "FC," "LE," or "RP," enter the energy sources expected to be used after fuel conversion, life extension, or repowering, respectively. If the Status Code is "CO," "LP," "PL," or "RA" enter the primary energy source the generator is expected to use based on the quantity of Btu's to be consumed. Use the codes provided under "Start-up Energy Sources," Schedule III, Part 2, f.
- g. Prime Mover:** For existing generators with a status code of "MO" or "RP" enter the prime mover code that is applicable once the modification is complete, if it will be different from the current prime mover (e.g., converting steam generator (ST) to combined cycle, waste heat only (CW)). Use the codes for prime mover provided under "Prime Mover," Schedule III, Part 1, c.
- h. Proposed Net Capability:** Enter the summer and winter capabilities as specified below:

If Status Code: Then Enter:

CO, LP, PL	The capabilities expected to be realized when the generator becomes operable.
FC	The capabilities expected to be realized from the conversion to the new energy sources.
LE, MO, RP	The capabilities expected to be realized from the modification to the equipment.
RA	The capabilities expected to be realized once the previously retired generator is reactivated.

SCHEDULE IV – OWNERSHIP OF GENERATORS OWNED JOINTLY OR BY OTHERS

Complete Schedule IV for existing and planned generators that are, or will be, jointly owned; or any generators that the respondent operates, but that are 100 percent owned by another utility or other entity, including generators that are leased by the respondent. If any generator is leased from another, enter the name of lessor. Only the current or planned operator of jointly owned generators should complete this schedule.

Specify the prime mover of the generator, using the codes provided under "Prime Mover," Schedule III, Part 1c.

Enter the first nine owners, in order of owner's percentage of ownership of each jointly owned generator. If a generator has more than nine owners, report the balance of owners as "Other Owners". Enter percent ownership to 2 decimal places, i.e., 12½ percent as "12.50". If a generator is 100 percent owned by an entity other than the operating utility, then enter the percentage ownership as "100.00."

SCHEDULE V – COAL-FIRED STEAM GENERATING UNITS: PLANNING, ENGINEERING, AND CONSTRUCTION MILESTONES

Complete this schedule with power plant name and generator identification code of each coal-fired steam generator expected to start operation within 10 years. Enter the milestone dates of new coal-fired generators as the milestones are planned and/or occur, regardless of their order on the form. Enter "NA" if a planned milestone date has not been determined, or the actual date is unknown. Enter "NR" in the planned date column if the milestone is not required. If the milestone has not occurred, leave the actual date column blank. Report for all coal-fired generators, including those fueled by coal-oil and coal-water mixtures in addition to those burning anthracite, bituminous, subbituminous and lignite.

1. On line 1, enter the date on which selected sites began to be assessed to determine the adequacy of water supply and availability of water rights.
2. On line 2, enter the date on which site access was obtained to begin environmental monitoring. Access may be obtained through purchase, options to buy, eminent domain, or other processes. The detailed environmental monitoring and measurement program, including air quality and meteorological analyses, should be initiated soon after this milestone date.
3. On line 3, enter the date on which the responsible State agency issued site certification. If more than one agency's certification is required, enter the final certification date. If no certification is required, enter "NR."
4. On line 4, enter the date on which the engineering conceptual design for the structures and systems began. Designs may include the site conditions, owner's criteria, vendor information, industry experience, available data bases, and engineering expenses.
5. On line 5, enter the date the contract was awarded to the boiler supplier.

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6. On line 6, enter the date on which the development of the specifications for components, equipment, and service for the coal-handling system began. Specifications include the supplier's requirements such as environmental provisions, and provisions for designing, operating, material, fabricating, erecting, testing, and boundary conditions.
7. On line 7, enter the date that an analysis of the atmospheric dispersion of the plant's emissions started. This is needed in order to meet the Prevention of Significant Deterioration requirements. Pollution control technology to be applied at this site must be determined during this analysis.
8. On line 8, enter the date that the final major preconstruction permit filing was completed. This should include: the filing for the Environmental Assessment (EA) and/or the Environmental Impact Statement (EIS), 401 Certification, Prevention of Significant Deterioration (PSD) Permit, Environmental Protection Administration (EPA) 402 Permit, and Corps of Engineers (COE) 404 Permit.
9. On line 9, enter the date on which the initial shaping of the structural steel superstructure began.
10. On line 10, enter the initial date on which preparations began for procurement documents, selection of bidder, and control-of-supplier performance for components, equipment, and services.
11. On line 11, enter the date that the construction permit was issued. The issuance of the Federal Environmental Impact Statement generally includes the construction permit, assuming that all State and Federal permits are obtained.
12. On line 12, enter the date of the first concrete pouring for the construction of the boiler house foundation.
13. On line 13, enter the date erecting the boiler house structural steel started.
14. On line 14, enter the date of the first concrete pouring for the construction of the stack.
15. On line 15, enter the date of the raising of the boiler drum or pressure parts began.
16. On line 16, enter the date the boiler house was completed.
17. On line 17, enter the date the cooling tower (or other cooling mechanism) was completed, connected to the cooling system and ready for cleaning and testing.
18. On line 18, enter the date on which boiler construction was completed and ready for cleaning.
19. On line 19, enter the date that verification of the complete generating station systems operability in accordance with design parameters was started.
20. On line 20, enter the date the system was declared available to supply electric power to the utility grid.

DEFINITIONS

1. Combined Cycle Unit - An electric generating unit that consists of one or more combustion turbines and one or more boilers with a portion of the required energy input to the boiler(s) provided by the exhaust gas of the combustion turbine(s).
2. Drawdown (Maximum) - The distance that the water surface of a reservoir is lowered from the normal full elevation to the lowest allowable elevation as the result of the withdrawal of water for the purposes of generating electricity.
3. Generating Unit - Any combination of physically connected generators, reactors, combustors, turbines, and other prime movers operated together to produce electric power.
4. Initial Operation - First availability of a newly constructed unit to provide power to the grid. For a nuclear unit this time is when the Full Power Operating License for the unit is received.
5. Life Extension - *Restoration or refurbishment of a plant to its original performance without the installation of new combustion technologies. Life extension results in 10 to 20 years of plant life beyond the anticipated retirement date, but usually does not result in larger capacity.*
6. Maximum Generator Nameplate Capacity - The full-load continuous rating of a generator under specified conditions as designated by the manufacturer. Generator nameplate capacity is usually indicated on a nameplate attached physically to the equipment.
7. Startup/Flame Stabilization Fuel - Any fuel used to initiate or sustain combustion or used to stabilize the height of flames once combustion is underway.
8. Net Capability - The steady hourly output which generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of peak demand, based on average water conditions for thermal-electric plants and based on medium flow conditions for hydroelectric plants.
9. Operable Generators/Units - Electric generators or generating units that are available to provide power to the grid or generating units that have been providing power to the grid but are temporarily shut down. This includes units in standby status, units out of service for an indefinite period, and new units that have their construction complete and is ready to provide test generation. A nuclear unit is operable once it receives its Full Power Operating License.
10. Repowering - *Refurbishment of a plant by replacing the associated boiler(s) with a new combustion technology, such as a fluidized-bed combustor. Repowering usually results in larger capacity.*