

MINUTES OF THE SENATE UTILITIES COMMITTEE.

The meeting was called to order by Chairman Senator Stan Clark at 9:30 a.m. on February 19, 2001 in Room 231-N of the Capitol.

All members were present except:

Committee staff present:      Raney Gilliland, Legislative Research  
   Bruce Kinzie, Revisor of Statutes  
   Lisa Montgomery, Revisor of Statutes  
   Ann McMorris, Secretary

Conferees appearing before the committee: none

Others attending: See attached list.

Cynthia Smith, Kansas City Power & Light, distributed copies of Federal Energy Regulatory Commission (FERC) code of federal regulations on Electric Plant Accounts. (Attachment 1)

**SB 177 - Independent Power Producer Property, taxation, assessed rate**

Chairman Clark opened for discussion    Western Resources had proposed an amendment to **SB 177** which provides that any portion of an electric utility plant not in rate base could qualify for the lower 25% assessment. The remaining portion in rate base would be assessed at 33%. Question asked how many utilities in Kansas have a non-rate base entity. Much discussion on difference of utilities being in a rate base or non-rate base and whether this would allow non-rate base plants to sell on the open market without regulation by KCC. Purpose of bill is to increase generation and prevent brownouts and provide incentive to build new plants in Kansas.

Moved by Senator Lee, seconded by Senator Tyson, to amend SB 177 by deleting line 24, page 2 “(2) (A) is coal-fired; or (B) uses natural gas to generate electricity.”. Motion carried.  
It is the intent of the committee to allow all fuel sources to qualify.

Moved by Senator Barone, seconded by Senator Wagle, to amend SB 177 by adding language on page 2, line 32, “all or any portion of” after the word ‘means’ and before the word ‘property’. Motion carried.  
Intent of this was to encourage new generation. If a public utility constructed new generation capacity and none or only a portion was placed in rate base which would be taxed at 33%, the remaining plant not in rate base would be assessed at 25%.

Moved by Senator Lee, seconded by Senator Barone, amend SB 177 by adding language on page 2, line 23 “newly constructed and” after the word ‘is’ and before the word ‘placed’. Motion carried.  
It is the intention that remodeling, replacing existing equipment or refurbishing to increase efficiency would not qualify as an addition to an electric generation facility.

Approval of Minutes

Moved by Senator Emler, seconded by Senator Taddiken, minutes of the Senate Utilities Committee meetings held on February 14, 2001, February 15, 2001 and February 16, 2001, be approved. Motion carried.

Continuation of the discussion on **SB 177** at the next committee meeting on February 20, 2001.

Adjournment.

Respectfully submitted

Ann McMorris, Secretary

Attachments - 1



CODE OF FEDERAL REGULATIONS

TITLE 18 -- CONSERVATION OF POWER AND WATER RESOURCES

CHAPTER I -- FEDERAL ENERGY REGULATORY COMMISSION, DEPARTMENT OF ENERGY

SUBCHAPTER C--ACCOUNTS, FEDERAL POWER ACT

PART 101 -- UNIFORM SYSTEM OF ACCOUNTS PRESCRIBED FOR PUBLIC UTILITIES AND LICENSEES SUBJECT TO THE PROVISIONS OF THE FEDERAL POWER ACT

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Electric Plant Chart of Accounts

1. INTANGIBLE PLANT

301 Organization.

302 Franchises and consents.

303 Miscellaneous intangible plant.

2. PRODUCTION PLANT

A. STEAM PRODUCTION

310 Land and land rights.

311 Structures and improvements.

312 Boiler plant equipment.

313 Engines and engine-driven generators.

314 Turbogenerator units.

315 Accessory electric equipment.

316 Miscellaneous power plant equipment

## B. NUCLEAR PRODUCTION

320 Land and land rights (Major only).

321 Structures and improvements (Major only).

322 Reactor plant equipment (Major only).

323 Turbogenerator units (Major only).

324 Accessory electric equipment (Major only).

325 Miscellaneous power plant equipment (Major only).

## C. HYDRAULIC PRODUCTION

330 Land and land rights.

331 Structures and improvements.

332 Reservoirs, dams, and waterways.

333 Water wheels, turbines and generators.

334 Accessory electric equipment.

335 Miscellaneous power plant equipment.

336 Roads, railroads and bridges.

## D. OTHER PRODUCTION

340 Land and land rights.

341 Structures and improvements.

342 Fuel holders, producers, and accessories.

343 Prime movers.

344 Generators.

345 Accessory electric equipment.

346 Miscellaneous power plant equipment.

### 3. TRANSMISSION PLANT

350 Land and land rights.

351 [Reserved]

352 Structures and improvements.

353 Station equipment.

354 Towers and fixtures.

355 Poles and fixtures.

356 Overhead conductors and devices.

357 Underground conduit.

358 Underground conductors and devices.

359 Roads and trails.

### 4. DISTRIBUTION PLANT

360 Land and land rights.

361 Structures and improvements.

362 Station equipment.

363 Storage battery equipment.

364 Poles, towers and fixtures.

365 Overhead conductors and devices.

366 Underground conduit.

367 Underground conductors and devices

368 Line transformers.

369 Services.

370 Meters.

371 Installations on customers' premises

372 Leased property on customers' premises.

373 Street lighting and signal systems.

## 5. GENERAL PLANT

389 Land and land rights.

390 Structures and improvements.

391 Office furniture and equipment.

392 Transportation equipment.

393 Stores equipment.

394 Tools, shop and garage equipment.

395 Laboratory equipment.

396 Power operated equipment.

397 Communication equipment.

398 Miscellaneous equipment.

399 Other tangible property.

this account shall be charged with an amount equal to the related income tax effect, if any, arising from such disposition and account 411.1, Provision For Deferred Income Taxes—Credit, Utility Operating Income, or 411.2, Provision For Deferred Income Taxes—Credit, Other Income and Deductions, as appropriate, shall be credited. When the remaining balance, after consideration of any related tax expenses, is less than \$25,000, this account shall be charged and account 411.1 or 411.2, as appropriate, credited with such balance. If after consideration of any related income tax expense, there is a remaining amount of \$25,000 or more, the Commission shall authorize or direct how such amount shall be accounted for at the time approval for the disposition of accounting is granted.

When plant is disposed of by transfer to a wholly owned subsidiary, the related balance in this account shall also be transferred. When the disposition relates to retirement of an item or items under a group method of depreciation where there is no tax effect in the year of retirement, no entries are required in this account if it can be determined that the related balance would be necessary to be retained to offset future group item tax deficiencies.

**Electric Plant Chart of Accounts**

1. INTANGIBLE PLANT

- 301 Organization.
- 302 Franchises and consents.
- 303 Miscellaneous intangible plant.

2. PRODUCTION PLANT

A. STEAM PRODUCTION

- 310 Land and land rights.
- 311 Structures and improvements.
- 312 Boiler plant equipment.
- 313 Engines and engine-driven generators.
- 314 Turbogenerator units.
- 315 Accessory electric equipment.
- 316 Miscellaneous power plant equipment

B. NUCLEAR PRODUCTION

- 320 Land and land rights (Major only).
- 321 Structures and improvements (Major only).
- 322 Reactor plant equipment (Major only).
- 323 Turbogenerator units (Major only).
- 324 Accessory electric equipment (Major only).
- 325 Miscellaneous power plant equipment (Major only).

C. HYDRAULIC PRODUCTION

- 330 Land and land rights.
- 331 Structures and improvements.
- 332 Reservoirs, dams, and waterways.
- 333 Water wheels, turbines and generators.
- 334 Accessory electric equipment.
- 335 Miscellaneous power plant equipment.
- 336 Roads, railroads and bridges.

D. OTHER PRODUCTION

- 340 Land and land rights.
- 341 Structures and improvements.
- 342 Fuel holders, producers, and accessories.
- 343 Prime movers.
- 344 Generators.
- 345 Accessory electric equipment.
- 346 Miscellaneous power plant equipment.

3. TRANSMISSION PLANT

- 350 Land and land rights.
- 351 [Reserved]
- 352 Structures and improvements.
- 353 Station equipment.
- 354 Towers and fixtures.
- 355 Poles and fixtures.
- 356 Overhead conductors and devices.
- 357 Underground conduit.
- 358 Underground conductors and devices.
- 359 Roads and trails.

4. DISTRIBUTION PLANT

- 360 Land and land rights.
- 361 Structures and improvements.
- 362 Station equipment.
- 363 Storage battery equipment.
- 364 Poles, towers and fixtures.
- 365 Overhead conductors and devices
- 366 Underground conduit.
- 367 Underground conductors and devices
- 368 Line transformers.
- 369 Services.
- 370 Meters.
- 371 Installations on customers' premises
- 372 Leased property on customers' premises.
- 373 Street lighting and signal systems.

5. GENERAL PLANT

- 389 Land and land rights.
- 390 Structures and improvements.
- 391 Office furniture and equipment.
- 392 Transportation equipment.
- 393 Stores equipment.
- 394 Tools, shop and garage equipment.
- 395 Laboratory equipment.
- 396 Power operated equipment.
- 397 Communication equipment.
- 398 Miscellaneous equipment.
- 399 Other tangible property.

## Electric Plant Accounts

### 301 Organization.

This account shall include all fees paid to federal or state governments for the privilege of incorporation and expenditures incident to organizing the corporation, partnership, or other enterprise and putting it into readiness to do business.

#### ITEMS

1. Cost of obtaining certificates authorizing an enterprise to engage in the public-utility business.

2. Fees and expenses for incorporation

3. Fees and expenses for mergers or consolidations.

4. Office expenses incident to organizing the utility.

5. Stock and minute books and corporate seal.

NOTE A: This account shall not include any discounts upon securities issued or assumed; nor shall it include any costs incident to negotiating loans, selling bonds or other evidences of debt or expenses in connection with the authorization, issuance or sale of capital stock.

NOTE B: Exclude from this account and include in the appropriate expense account the cost of preparing and filing papers in connection with the extension of the term of incorporation unless the first organization costs have been written off. When charges are made to this account for expenses incurred in mergers, consolidations, or reorganizations, amounts previously included herein or in similar accounts in the books of the companies concerned shall be excluded from this account.

### 302 Franchises and consents.

A. This account shall include amounts paid to the federal government, to a state or to a political subdivision thereof in consideration for franchises, consents, water power licenses, or certificates, running in perpetuity or for a specified term of more than one year, together with necessary and reasonable expenses incident to procuring such franchises, consents, water power licenses, or certificates of permission and approval, including expenses of organizing and merging separate corporations, where statutes require, solely for the purpose of acquiring franchises.

B. If a franchise, consent, water power license or certificate is acquired

by assignment, the charge to this account in respect thereof shall not exceed the amount paid therefor by the utility to the assignor, nor shall it exceed the amount paid by the original grantee, plus the expense of acquisition to such grantee. Any excess of the amount actually paid by the utility over the amount above specified shall be charged to account 426.5, Other Deductions.

C. When any franchise has expired, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or to account 111, Accumulated Provision for Amortization of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for Depreciation and Amortization of Electric Plant), as appropriate.

D. Records supporting this account shall be kept so as to show separately the book cost of each franchise or consent.

NOTE: Annual or other periodic payments under franchises shall not be included herein but in the appropriate operating expense account.

### 303 Miscellaneous intangible plant.

A. This account shall include the cost of patent rights, licenses, privileges, and other intangible property necessary or valuable in the conduct of utility operations and not specifically chargeable to any other account.

B. When any item included in this account is retired or expires, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or account 111, Accumulated Provision for Amortization of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for Depreciation and Amortization of Electric Plant), as appropriate.

C. This account shall be maintained in such a manner that the utility can furnish full information with respect to the amounts included herein.

### 310 Land and land rights.

This account shall include the cost of land and land rights used in connection with steam-power generation. (See electric plant instruction 7.)



**311 Structures and improvements.**

This account shall include the cost in place of structures and improvements used in connection with steam-power generation. (See electric plant instruction 8.)

NOTE: Include steam production roads and railroads in this account.

**312 Boiler plant equipment.**

This account shall include the cost installed of furnaces, boilers, coal and ash handling and coal preparing equipment, steam and feed water piping, boiler apparatus and accessories used in the production of steam, mercury, or other vapor, to be used primarily for generating electricity.

## ITEMS

1. Ash handling equipment, including hoppers, gates, cars, conveyors, hoists, sluicing equipment, including pumps and motors, sluicing water pipe and fittings, sluicing trenches and accessories, etc., except sluices which are a part of a building.

2. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drives.

3. Boiler plant cranes and hoists and associated drives.

4. Boilers and equipment, including boilers and baffles, economizers, superheaters, soot blowers, foundations and settings, water walls, arches, grates, insulation, blow-down system, drying out of new boilers, also associated motors or other power equipment.

5. Breeching and accessories, including breeching, dampers, soot spouts, hoppers and gates, cinder eliminators, breeching insulation, soot blowers and associated motors.

6. Coal handling and storage equipment, including coal towers, coal lorries, coal cars, locomotives and tracks when devoted principally to the transportation of coal, hoppers, downtakes, unloading and hoisting equipment, skip hoists and conveyors, weighing equipment, magnetic separators, cable ways, housings and supports for coal handling equipment.

7. Draft equipment, including air preheaters and accessories, induced and forced draft fans, air ducts, combustion control mechanisms, and associated motors or other power equipment.

8. Gas-burning equipment, including holders, burner equipment and piping, control equipment, etc.

9. Instruments and devices, including all measuring, indicating, and recording equip-

ment for boiler plant service together with mountings and supports.

10. Lighting systems.

11. Oil-burning equipment, including tanks, heaters, pumps with drive, burner equipment and piping, control equipment, etc.

12. Pulverized fuel equipment, including pulverizers, accessory motors, primary air fans, cyclones and ducts, dryers, pulverized fuel bins, pulverized fuel conveyors and equipment, burners, burner piping, priming equipment, air compressors, motors, etc.

13. Stacks, including foundations and supports, stack steel and ladders, stack brick work, stack concrete, stack lining, stack painting (first), when set on separate foundations, independent of substructure or superstructure of building.

14. Station piping, including pipe, valves, fittings, separators, traps, desuperheaters, hangers, excavation, covering, etc., for station piping system, including all steam, condensate, boiler feed and water supply piping, etc., but not condensing water, plumbing, building heating, oil, gas, air piping or piping specifically provided for in account 313.

15. Stoker or equivalent feeding equipment, including stokers and accessory motors, clinker grinders, fans and motors, etc.

16. Ventilating equipment.

17. Water purification equipment, including softeners and accessories, evaporators and accessories, heat exchangers, filters, tanks for filtered or softened water, pumps, motors, etc.

18. Water-supply systems, including pumps, motors, strainers, raw-water storage tanks, boiler wash pumps, intake and discharge pipes and tunnels not a part of a building.

19. Wood fuel equipment, including hoppers, fuel hogs and accessories, elevators and conveyors, bins and gates, spouts, measuring equipment and associated drives.

NOTE: When the system for supplying boiler or condenser water is elaborate, as when it includes a dam, reservoir, canal, pipe line, cooling ponds, or where gas or oil is used as a fuel for producing steam and is supplied through a pipe line system owned by the utility, the cost of such special facilities shall be charged to a subdivision of account 311, Structures and Improvements.

**313 Engines and engine-driven generators.**

This account shall include the cost installed of steam engines, reciprocating or rotary, and their associated auxiliaries; and engine-driven main generators, except turbogenerator units.

## ITEMS

1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
2. Belting, shafting, pulleys, reduction gearing, etc.
3. Circulating pumps, including connections between condensers and intake and discharge tunnels.
4. Cooling system, including towers, pumps, tank, and piping.
5. Condensers, including condensate pumps, air and vacuum pumps, ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
6. Cranes, hoists, etc., including items wholly identified with items listed herein.
7. Engines, reciprocating or rotary.
8. Fire-extinguishing systems.
9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
10. Generators—Main, a.c. or d.c., including field rheostats and connections for self-excited units, and excitation systems when identified with the generating unit.
11. Governors.
12. Lighting systems.
13. Lubricating systems including gauges, filters, tanks, pumps, piping, motors, etc.
14. Mechanical meters, including gauges, recording instruments, sampling and testing equipment.
15. Piping—main exhaust, including connections between generator and condenser and between condenser and hotwell.
16. Piping—main steam, including connections from main throttle valve to turbine inlet.
17. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
18. Pressure oil system, including accumulators, pumps, piping, motors, etc.
19. Throttle and inlet valve.
20. Tunnels, intake and discharge, for condenser system, when not a part of a structure.
21. Water screens, motors, etc.

**314 Turbogenerator units.**

This account shall include the cost installed of main turbine-driven units and accessory equipment used in generating electricity by steam.

## ITEMS

1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
2. Circulating pumps, including connections between condensers and intake and discharge tunnels.

3. Condensers, including condensate pumps, air and vacuum pumps, ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
4. Generator hydrogen, gas piping and de-trainment equipment.
5. Cooling system, including towers, pumps, tanks, and piping.
6. Cranes, hoists, etc., including items wholly identified with items listed herein.
7. Excitation system, when identified with main generating units.
8. Fire-extinguishing systems.
9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
10. Governors.
11. Lighting systems.
12. Lubricating systems, including gauges, filters, water separators, tanks, pumps, piping, motors, etc.
13. Mechanical meters, including gauges, recording instruments, sampling and testing equipment.
14. Piping—main exhaust, including connections between turbogenerator and condenser and between condenser and hotwell.
15. Piping—main steam, including connections from main throttle valve to turbine inlet.
16. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
17. Pressure oil systems, including accumulators, pumps, piping, motors, etc.
18. Steelwork, specially constructed for apparatus listed herein.
19. Throttle and inlet valve.
20. Tunnels, intake and discharge, for condenser system, when not a part of structure, water screens, etc.
21. Turbogenerators—main, including turbine and generator, field rheostats and electric connections for self-excited units.
22. Water screens, motors, etc.
23. Moisture separator for turbine steam.
24. Turbine lubricating oil (initial charge).

**315 Accessory electric equipment.**

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by steam power, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which they are associated is included.

## ITEMS

1. Auxiliary generators, including boards, compartments, switching equipment, control

equipment, and connections to auxiliary power bus.

2. Excitation system, including motor, turbine and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housing, protective screens, etc.

3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads grounding switch, etc., special housings, protective screens, etc.

4. Station buses including main, auxiliary, transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station grounding system, special fire-extinguishing system, and test equipment.

5. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, truck-type boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature recording devices, frequency-control equipment, master clocks, watt-hour meters and synchronoscope in the turbine room, station totalizing wattmeter, boiler-room load indicator equipment, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

NOTE A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purposes of transmission or distribution.

NOTE B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost shall be included in such other account.

### 316 Miscellaneous power plant equipment.

This account shall include the cost installed of miscellaneous equipment in and about the steam generating plant devoted to general station use, and which is not properly includible in any of the foregoing steam-power production accounts.

#### ITEMS

1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.

2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.

3. Fire-extinguishing equipment for general station use.

4. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.

5. Locomotive cranes not includible elsewhere.

6. Locomotives not includible elsewhere.

7. Marine equipment, including boats, barges, etc.

8. Miscellaneous belts, pulleys, countershafts, etc.

9. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, signal systems, callophones emergency whistles and sirens, fire alarms, insect-control equipment, and other similar equipment.

10. Railway cars not includible elsewhere.

11. Refrigerating systems, including compressors, pumps, cooling coils, etc.

12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.

13. Ventilating equipment, including items wholly identified with apparatus listed herein.

NOTE: When any item of equipment listed herein is wholly used in connection with equipment included in another account, its cost shall be included in such other account.

### 320 Land and land rights (Major only).

This account shall include the cost of land and land rights used in connection with nuclear power generation. (See electric plant instruction 7.)

### 321 Structures and improvements (Major only).

This account shall include the cost in place of structures and improvements used and

useful in connection with nuclear power generation. (See electric plant instruction 8.)

NOTE: Include vapor containers and nuclear production roads and railroads in this account.

### 322 Reactor plant equipment (Major only).

This account shall include the installed cost of reactors, reactor fuel handling and storage equipment, pressurizing equipment, coolant charging equipment, purification and discharging equipment, radioactive waste treatment and disposal equipment, boilers, steam and feed water piping, reactor and boiler apparatus and accessories and other reactor plant equipment used in the production of steam to be used primarily for generating electricity, including auxiliary superheat boilers and associated equipment in systems which change temperatures or pressure of steam from the reactor system.

#### ITEMS

1. Auxiliary superheat boilers and associated fuel storage handling preparation and burning equipment, etc. (See account 312 Boiler Plant Equipment, for items, but exclude water supply, water flow lines, and steam lines, as well as other equipment not strictly within the superheat function.)
2. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drivers.
3. Boilers and heat exchangers.
4. Instruments and devices, including all measuring, indicating, and recording equipment for reactor and boiler plant service together with mountings and supports.
5. Lighting systems.
6. Moderators, such as heavy water, graphite, etc., initial charge.
7. Reactor coolant; primary and secondary systems (initial charge).
8. Radioactive waste treatment and disposal equipment, including tanks, ion exchangers, incinerators, condensers, chimneys, and diluting fans and pumps.
9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
10. Reactor including shielding, control rods and mechanisms.
11. Reactor fuel handling equipment, including manipulating and extraction tools, underwater viewing equipment, seal cutting

and welding equipment, fuel transfer equipment and fuel disassembly machinery.

12. Reactor fuel element failure detection system.

13. Reactor emergency poison container and injection system.

14. Reactor pressurizing and pressure relief equipment, including pressurizing tanks and immersion heaters.

15. Reactor coolant or moderator circulation charging, purification, and discharging equipment, including tanks, pumps, heat exchangers, demineralizers, and storage.

16. Station piping, including pipes, valves, fittings, separators, traps, desuperheaters, hangers, excavation, covering, etc., for station piping system, including all-reactor coolant, steam, condensate, boiler feed and water supply piping, etc., but not condensing water, plumbing, building heating, oil, gas, or air piping.

17. Ventilating equipment.

18. Water purification equipment, including softeners, demineralizers, and accessories, evaporators and accessories, heat exchangers, filters, tanks for filtered or softened water, pumps, motors, etc.

19. Water supply systems, including pumps, motors, strainers, raw-water storage tanks, boiler wash pumps, intake and discharge pipes and tunnels not a part of a building.

20. Reactor plant cranes and hoists, and associated drives.

NOTE: When the system for supplying boiler or condenser water is elaborate, as when it includes a dam, reservoir, canal, pipe lines, or cooling ponds, the cost of such special facilities shall be charged to a subdivision of account 321, Structures and Improvements.

### 323 Turbogenerator units (Major only).

This account shall include the cost installed of main turbine-driven units and accessory equipment used in generating electricity by steam.

#### ITEMS

1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
2. Circulating pumps, including connections between condensers, and intake and discharge tunnels.
3. Condensers, including condensate pumps, air and vacuum pumps ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
4. Generator hydrogen gas piping system and hydrogen detrainment equipment, and bulk hydrogen gas storage equipment.
5. Cooling system, including towers, pumps, tanks and piping.

6. Cranes, hoists, etc., including items wholly identified with items listed herein.

7. Excitation system, when identified with main generating units.

8. Fire extinguishing systems.

9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.

10. Governors.

11. Lighting systems.

12. Lubricating systems, including gauges filters, water separators, tanks, pumps, piping motors, etc.

13. Mechanical meters, including gauges recording instruments, sampling and testing equipment.

14. Piping—main exhaust, including connections between turbogenerator and condenser and between condenser and hotwell.

15. Piping—main steam, including connections from main throttle valve to turbine inlet.

16. Platforms, railings, steps, gratings, etc. appurtenant to apparatus listed herein.

17. Pressure oil systems, including accumulators, pumps, piping, motors, etc.

18. Steelwork, specially constructed for apparatus listed herein.

19. Throttle and inlet valve.

20. Tunnels, intake and discharge, for condenser system, when not a part of structure water screens, etc.

21. Turbogenerators—main, including turbine and generator, field rheostats and electric connections for self-excited units.

22. Water screens, motors, etc.

23. Moisture separators for turbine steam.

24. Turbine lubricating oil (initial charge).

### 324 Accessory electric equipment (Major only).

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by nuclear power, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which they are associated is included.

NOTE: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

#### ITEMS

1. Auxiliary generators, including boards, compartments, switching equipment, control

equipment, and connections to auxiliary power bus.

2. Excitation system, including motor, turbine and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housing, protective screens, etc.

3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housings, protective screens, etc.

4. Station buses, including main, auxiliary, transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station grounding system, fire-extinguishing system, and test equipment.

5. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, truck-type boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature recording devices, frequency-control equipment, master clocks, watt-hour meters and synchroscope in the turbine room, station totalizing wattmeter, boiler-room load indicator equipment, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

NOTE: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost shall be included in such other account

### 325 Miscellaneous power plant equipment (Major only).

This account shall include the cost installed of miscellaneous equipment in and about the nuclear generating

plant devoted to general station use, and which is not properly includible in any of the foregoing nuclear-power production accounts.

## ITEMS

1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
3. Fire-extinguishing equipment for general station and site use.
4. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
5. Locomotive cranes not includible elsewhere.
6. Locomotives not included elsewhere.
7. Marine equipment, including boats, barges, etc.
8. Miscellaneous belts, pulleys, countershafts, etc.
9. Miscellaneous equipment, including atmospheric and weather recording devices, intrasite communication equipment, laboratory equipment, signal systems, callophones emergency whistles and sirens, fire alarms, insect-control equipment, and other similar equipment.
10. Railway cars or special shipping containers not includible elsewhere.
11. Refrigerating systems, including compressors, pumps, cooling coils, etc.
12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
13. Ventilating equipment, including items wholly identified with apparatus listed herein.
14. Station and area radiation monitoring equipment.

NOTE: When any item of equipment listed herein is wholly used in connection with equipment included in another account, its cost shall be included in such other account.

**330 Land and land rights.**

This account shall include the cost of land and land rights used in connection with hydraulic power generation. (See electric plant instruction 7.) For Major utilities, it shall also include the cost of land and land rights used in connection with (1) the conservation of fish and wildlife, and (2) recreation. Separate subaccounts shall be maintained for each of the above.

**331 Structures and improvements.**

This account shall include the cost in place of structures and improvements used in connection with hydraulic power generation. (See electric plant instruction 8.) For Major utilities, it shall also include the cost in place of structures and improvements used in connection with (1) the conservation of fish and wildlife, and (2) recreation. Separate subaccounts shall be maintained for each of the above.

**332 Reservoirs, dams, and waterways.**

This account shall include the cost in place of facilities used for impounding, collecting, storage, diversion, regulation, and delivery of water used primarily for generating electricity. For Major utilities, it shall also include the cost in place of facilities used in connection with (a) the conservation of fish and wildlife, and (b) recreation. Separate subaccounts shall be maintained for each of the above. (See electric plant instruction 8C.)

## ITEMS

1. Bridges and culverts (when not a part of roads or railroads).
2. Clearing and preparing land.
3. Dams, including wasteways, spillways, flash boards, spillway gates with operating and control mechanisms, tunnels, gate houses, and fish ladders.
4. Dikes and embankments.
5. Electric system, including conductors control system, transformers, lighting fixtures, etc.
6. Excavation, including shoring, bracing, bridging, refill, and disposal of excess excavated material.
7. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
8. Intakes, including trash racks, rack cleaners, control gates and valves with operating mechanisms, and intake house when not a part of station structure.
9. Platforms, railings, steps, gratings, etc., appurtenant to structures listed herein.
10. Power line wholly identified with items included herein.
11. Retaining walls.
12. Water conductors and accessories, including canals, tunnels, flumes, penstocks pipe conductors, forebays, tailraces, navigation locks and operating mechanisms, waterhammer and surge tanks, and supporting trestles and structures.
13. Water storage reservoirs, including dams, flashboards, spillway gates and operating mechanisms, inlet and outlet tunnels,

regulating valves and valve towers, silt and mud sluicing tunnels with valve or gate towers, and all other structures wholly identified with any of the foregoing items.

### 333 Water wheels, turbines and generators.

This account shall include the cost installed of water wheels and hydraulic turbines (from connection with penstock or flume to tailrace) and generators driven thereby devoted to the production of electricity by water power or for the production of power for industrial or other purposes, if the equipment used for such purposes is a part of the hydraulic power plant works.

#### ITEMS

1. Exciter water wheels and turbines, including runners, gates, governors, pressure regulators, oil pumps, operating mechanisms, scroll cases, draft tubes, and draft-tube supports.
2. Fire-extinguishing equipment.
3. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
4. Generator cooling system, including air cooling and washing apparatus, air fans and accessories, air ducts, etc.
5. Generators—main, a.c. or d.c., including field rheostats and connections for self-excited units and excitation system when identified with the generating unit.
6. Lighting systems.
7. Lubricating systems, including gauges, filters, tanks, pumps, piping, etc.
8. Main penstock valves and appurtenances, including main valves, control equipment, bypass valves and fittings, and other accessories.
9. Main turbines and water wheels, including runners, gates, governors, pressure regulators, oil pumps, operating mechanisms, scroll cases, draft tubes, and draft-tube supports.
10. Mechanical meters and recording instruments.
11. Miscellaneous water-wheel equipment, including gauges, thermometers, meters, and other instruments.
12. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
13. Scroll case filling and drain system, including gates, pipe, valves, fittings, etc.
14. Water-actuated pressure-regulator system, including tanks and housings, pipes, valves, fittings and insulations, piers and anchorage, and excavation and backfill.

### 334 Accessory electric equipment.

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by hydraulic power and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts, such motors being included in the account in which the equipment with which they are associated is included.

#### ITEMS

1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
2. Excitation system, including motor, turbine, and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housings, protective screens, etc.
3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housings, protective screens, etc.
4. Station buses, including main, auxiliary, transfer, synchronizing, and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors starting transformers, current transformers, potential transformers, protective relays, storage batteries, and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special fire-extinguishing system, and test equipment.
5. Station control system, including station switchboards with panel wiring panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trucktype boards complete, cubicles, station supervisory control devices, frequency control equipment, master clocks, watt-hour meter, station totalizing watt-meter, storage batteries, panels and charging sets, instrument transformers for supervisory metering,

conductors and conduit, special supports for conduit, switchboards, batteries, special housings for batteries, protective screens, doors, etc.

NOTE A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purpose of transmission or distribution.

NOTE B: When any item of equipment listed herein is used wholly to furnish power to equipment, it shall be included in such equipment account.

**335 Miscellaneous power plant equipment.**

This account shall include the cost installed of miscellaneous equipment in and about the hydroelectric generating plant which is devoted to general station use and is not properly includible in other hydraulic production accounts. For Major utilities, it shall also include the cost of equipment used in connection with (a) the conservation of fish and wildlife, and (b) recreation. Separate subaccounts shall be maintained for each of the above.

ITEMS

1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
3. Fire-extinguishing equipment for general station use.
4. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
5. Locomotive cranes not includible elsewhere.
6. Locomotives not includible elsewhere.
7. Marine equipment, including boats, barges, etc.
8. Miscellaneous belts, pulleys, countershafts, etc.
9. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, insect control equipment, signal systems, callophones, emergency whistles and sirens, fire alarms, and other similar equipment.
10. Railway cars, not includible elsewhere.
11. Refrigerating system, including compressors, pumps, cooling coils, etc.
12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.

13. Ventilating equipment, including items wholly identified with apparatus listed herein.

NOTE: When any item of equipment, listed herein is used wholly in connection with equipment included in another account, its cost shall be included in such other account.

**336 Roads, railroads and bridges.**

This account shall include the cost of roads, railroads, trails, bridges, and trestles used primarily as production facilities. It includes also those roads, etc., necessary to connect the plant with highway transportation systems, except when such roads are dedicated to public use and maintained by public authorities.

ITEMS

1. Bridges, including foundations, piers, girders, trusses, flooring, etc.
2. Clearing land.
3. Railroads, including grading, ballast, ties, rails, culverts, hoists, etc.
4. Roads, including grading, surfacing, culverts, etc.
5. Structures, constructed and maintained in connection with items listed herein.
6. Trails, including grading, surfacing, culverts, etc.
7. Trestles, including foundations, piers, girders, trusses, flooring, etc.

NOTE A: Roads intended primarily for connecting employees' houses with the power-plant, and roads used primarily in connection with fish and wildlife, and recreation activities, shall not be included herein but in account 331, Structures and Improvements.

NOTE B: The cost of temporary roads, bridges, etc. necessary during the period of construction but abandoned or dedicated to public use upon completion of the plant, shall not be included herein but shall be charged to the accounts appropriate for the construction.

**340 Land and land rights.**

This account shall include the cost of land and land rights used in connection with other power generation. (See electric plant instruction 7.)

**341 Structures and improvements.**

This account shall include the cost in place of structures and improvements used in connection with other power generation. (See electric plant instruction 8.)

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**342 Fuel holders, producers, and accessories.**

This account shall include the cost installed of fuel handling and storage equipment used between the point of fuel delivery to the station and the intake pipe through which fuel is directly drawn to the engine, also the cost of gas producers and accessories devoted to the production of gas for use in prime movers driving main electric generators.

## ITEMS

1. Blower and fans.
2. Boilers and pumps.
3. Economizers.
4. Exhauster outfits.
5. Flues and piping.
6. Pipe system.
7. Producers.
8. Regenerators.
9. Scrubbers.
10. Steam injectors.
11. Tanks for storage of oil, gasoline, etc.
12. Vaporizers.

**343 Prime movers.**

This account shall include the cost installed of Diesel or other prime movers devoted to the generation of electric energy, together with their auxiliaries.

## ITEMS

1. Air-filtering system.
2. Belting, shafting, pulleys, reduction gearing, etc.
3. Cooling system, including towers, pumps, tanks, and piping.
4. Cranes, hoists, etc., including items wholly identified with apparatus listed herein.
5. Engines, Diesel, gasoline, gas, or other internal combustion.
6. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
7. Governors.
8. Ignition system.
9. Inlet valve.
10. Lighting systems.
11. Lubricating systems, including filters, tanks, pumps, and piping.
12. Mechanical meters, including gauges, recording instruments, sampling, and testing equipment.
13. Mufflers.
14. Piping.
15. Starting systems, compressed air, or other, including compressors and drives, tanks, piping, motors, boards and connections, storage tanks, etc.

16. Steelwork, specially constructed for apparatus listed herein.

17. Waste heat boilers, antifructuators, etc.

**344 Generators.**

This account shall include the cost installed of Diesel or other power driven main generators.

## ITEMS

1. Cranes, hoists, etc., including items wholly identified with such apparatus.
2. Fire-extinguishing equipment.
3. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
4. Generator cooling system, including air cooling and washing apparatus, air fans and accessories, air ducts, etc.
5. Generators—main, a.c. or d.c., including field rheostats and connections for self-excited units and excitation system when identified with the generating unit.
6. Lighting systems.
7. Lubricating system, including tanks, filters, strainers, pumps, piping, coolers, etc.
8. Mechanical meters, and recording instruments.
9. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.

NOTE: If prime movers and generators are so integrated that it is not practical to classify them separately, the entire unit may be included in account 344, Generators.

**345 Accessory electric equipment.**

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced in other power generating stations, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which it is associated is included.

## ITEMS

1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
2. Excitation system, including motor, turbine and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter

bus tie panels, generator and exciter rheostats, etc., special housings, protective screens, etc.

3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housing, protective screens, etc.

4. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trunktype boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature-recording devices, frequency control equipment, master clocks, watt-hour meter, station totalizing wattmeter, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

5. Station buses, including main, auxiliary transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station ground system, special fire-extinguishing system, and test equipment.

NOTE A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

NOTE B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost shall be included in such other account.

#### **346 Miscellaneous power plant equipment.**

This account shall include the cost installed of miscellaneous equipment in and about the other power generating plant, devoted to general station use, and not properly includible in any of the foregoing other power production accounts.

#### **ITEMS**

1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.

2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.

3. Fire-extinguishing equipment for general station use.

4. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.

5. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, signal systems, callophones, emergency whistles and sirens, fire alarms, and other similar equipment.

6. Miscellaneous belts, pulleys, countershafts, etc.

7. Refrigerating system including compressors, pumps, cooling coils, etc.

8. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.

9. Ventilating equipment, including items wholly identified with apparatus listed herein.

NOTE: When any item of equipment, listed herein is used wholly in connection with equipment included in another account, its cost shall be included in such other account.

#### **350 Land and land rights.**

This account shall include the cost of land and land rights used in connection with transmission operations. (See electric plant instruction 7.)

#### **351 [Reserved]**

#### **352 Structures and improvements.**

This account shall include the cost in place of structures and improvements used in connection with transmission operations. (See electric plant instruction 8.)

#### **353 Station equipment.**

This account shall include the cost installed of transforming, conversion, and switching equipment used for the purpose of changing the characteristics of electricity in connection with its transmission or for controlling transmission circuits.