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APPENDIX A

LIST OF PLANT ITEMS AND RETIREMENT UNITS OF PROPERTY WITH SERVICE LIVES FOR CORPS OF ENGINEERS MULTIPLE-PURPOSE PROJECTS

31-A-1. Plant Items.

a. General. The list of plant items will provide the framework for detailed capital plant records (inventories) of project plant in service, and, in conjunction with the related plant service lives, provide the basis for establishment of composite depreciation rates. The listed plant items consist of principal items and subitems. Although the subitems generally are assigned the maximum service lives of the principal items under which classified, the capital plant records will be detailed to the subitem level in order to provide a more realistic inventory of capital plant in service.

b. Capital Plant Accounting. This accounting involves the adjustment of PIS accounts and capital plant record to reflect additions to and retirements of plant and equipment, either with or without replacement. In order to avoid undue refinement in capital plant accounting, plant items will consist of retirement units and minor items of property.

31-A-2. Retirement Units. The listed retirement units denote the smallest items or components of plant and equipment which, when added to or retired from PIS, will be accounted for in capital plant accounts. Additions to, or retirements of, plant comprising any combinations of listed retirement units shall be considered as retirement units for capital plant accounting.

31-A-3. Minor Items of Property. All components of plant and equipment which have not been specifically designated as retirement units, including various individual components of a retirement unit, shall be considered as minor items of property. Costs incurred in connection with additions or retirements of minor items will be accounted for as maintenance expense, except as modified in paragraph 31-A-5 below. However, when minor items of property are added to PIS or replaced independently of the retirement units or plant items of which they are a part, the addition or replacement will be accounted for as a capital plant addition or retirement, if the change results in a substantial betterment; i.e., a substantial increase in the efficiency, durability, or capacity of the property affected.

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* 31-A-4. Service Lives and Depreciation. The uniform service lives prescribed for the listed plant items provide the basis for establishment of composite service lives and depreciation rates at the feature and subfeature account level.

31-A-5. Instructions, Retirement Units. The following instructions for application and interpretation of the list of retirement units will be considered as an integral part of the list.

a. The list of plant items and retirement units and related service lives will be applied uniformly to all Corps of Engineers multiple-purpose projects. It is recognized, however, that in unusual or extreme cases, exceptions may be both necessary and desirable. Therefore, when modification of either the list of retirement units or of the established service lives is considered warranted by special circumstances peculiar to a specific project, the proposed modification will be submitted to HQUSACE (CERM-F), WASH DC 20314-1000 for approval.

b. The word "each" or the article "a," "an," or "the," as appropriate, will apply to each retirement unit listed unless specifically precluded by the wording of the retirement unit definition.

c. Plant and equipment for which plant items and retirement units are listed under Feature Account 20, Permanent Operating Equipment, should be included in other features and subfeatures, when applicable. In such cases, the plant items and retirement units prescribed under Account 20 will be used.

d. When retirement units are added to plant, either with or without replacement of existing equipment, the cost thereof will be added to the applicable PIS accounts. Conversely, when retirement units are retired, with or without replacement, the cost of the units so retired will be deducted from PIS accounts.

e. Because of workload and funding considerations, replacement of various components which comprise a complete retirement unit may be scheduled for accomplishment progressively over more than one fiscal year. In such cases, the ultimate replacement of the entire retirement unit shall be treated as a capital plant replacement upon completion.

f. Retirement units for systems, such as power, lighting water, sewerage, and drainage, or for equipment, such as elevators and bridge cranes, will not include such embedded items *

* as piping, conduit, grounding cable, and crane or guide rails, unless such embedded items are specifically provided for in the retirement unit or related plant item descriptions.

g. Definitions.

(1) A lighting or power board is a free standing metal enclosed structure including main and auxiliary circuit breakers, meters, transformers, and similar equipment, and does not include separately mounted power or lighting panels.

(2) A control switchboard is a free standing metal enclosure containing control switches, instruments, relays, and other associated accessories for the control of operating equipment. The concrete buildings classification will include those of steel reinforced poured concrete and pre-stressed concrete slab construction. Buildings of concrete or cinder block, and similar types of construction will be classified as buildings other than concrete.

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ILLUSTRATION 31/1

SPECIMEN
 COMPUTATION OF COMPOSITE SERVICE LIVES

Account 07.4: Miscellaneous Power Plant Equipment

(1)	(2)	(3)	(4)
BASIC DATA (Simulated)			
Plant Item No (a)	Service Life Years (a)	Plant Cost	Plant Cost Expiring Annually (b)
1	100	\$493,614	\$ 4,936
2	50	6,797	136
3	50	10,182	204
4	35	34,965	999
5	25	31,958	1,278
6	25	68,045	2,722
7	15	<u>-24,738</u>	<u>1,649</u>
Account Total		\$670,299	\$11,924
Composite Life - Years			56.2 (c)

(a) Principal plant items from uniform list.

(b) Annual plant consumption during the estimated service life:
 column 3 divided by column 2.

(c) Account totals, column 3 divided by column 4; rounded to
 nearest one-tenth year.

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
01	330	1.	<u>LANDS AND DAMAGES</u> Fee Land (Payments to Owners)	-	Each parcel retired or added	Each parcel of land added to, or retired from, project plant will constitute a Retirement Unit. However, because retirement value of land is expected to equal the initial cost, this item will not be depreciated.
		2.	Easements, Lesser Interests, Resettlements and Damages	100	None	Costs of easements, lesser interest, resettlements, damages, and Government cost of acquiring lands and land rights, are not recoverable as retirement (salvage) receipts upon termination of the project. Therefore, these items must be amortized over the project life.
		3.	Land Acquisition Expenses	100	None	
02	330	1.	<u>RELOCATIONS</u> Lands and Damages Fee Land (Payment to Owners)	-	None	Land acquired for the purpose of relocating the property of others is initially acquired by the Government and is subsequently transferred to the owners of the property which requires relocation. In exchange, title to the land upon which the property to be relocated is situated is transferred to the Government. Consequently, the purchase price of the land acquired for the relocation substantially reflects the unrecorded purchase price of the fee-owned land ultimately acquired by the Government as a result of the exchange. The purchase price of fee-land acquired for the relocation should therefore not be amortized. All other costs incurred in connection with relocations represents intangible plant cost to be amortized over the project life.
		a.	Easements, Lesser Interest, Resettlement and Damages	100	None	
		b.	Land Acquisition Expense	100	None	
		c.				
03	332	2.	Construction Cost, including payments for relocations by owners	50	None	
		1.	<u>RESERVOIRS</u> Basic Features, excluding other principal items listed All components not listed elsewhere (Revised)	100	Complete item, including sub-items b-d None	
		a.	Timber Structures	25	Complete item, including sub items a-c	
		b.	Bulkheads		Each structure, complete	
		c.	Retaining Walls		"	
			Docks, Piers, and Mooring Facilities		"	
			Floating Trash Booms, Complete		Each independent facility, Complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
C of E	FERC					
04	-		<u>DAMS AND OTHER WATER</u>			
041 & 042	332	1.	MAIN DAM AND SPILLWAY Basic Structure, excluding other principal items	100	Complete structure, including subitems a - m	Including outlet conduits, as applicable, when an integral part of the Non-overflow Structure.
		a.	Non-overflow Structure, Complete excluding applicable subitems c-o		Structure, Complete	
		b.	Spillway Structure, Complete excluding applicable subitems c-o		Structure, Complete	Including outlet conduits, as applicable, when an integral part of the Spillway Structure.
		c.	Crane, Complete (excluding Mobile and Crawler type)	50		
		d.	Gate, Spillway	50		
		e.	Machinery, Gate Hoist	50	Complete System for one gate	
		f.	Power System, excluding Power Boards and Engine Generator Sets 100 - kw and over		Complete System	
		g.	Lighting System, excluding Lighting Board and attached Accessory Equipment		Complete System	
		h.	Lifting Beams	50	Complete System	Includes lifting beams for outlets.
		i.	Stoplogs and Bulkheads		Complete Set of all Beams related to Main Dam	Includes stoplogs and bulkheads for outlets.
		j.	Compressed Air Systems, excluding Compressors 100 cfm and over		Complete System	Includes "packaged units" for water and sewage.
		k.	Water System, excluding piping	40	Complete System	Includes "packaged units" for water and sewage.
		l.	Sewer System, excluding piping	40	Complete System	
		m.	All components not listed elsewhere		None	
		n.	Gate, Outlet		Gate, Complete	Applicable only when the outlet works (other than power intake works) are an integral part of the dam structure.
		o.	Machinery, Gate Operating, Outlet	50	Complete System for one gate	Applicable only when the outlet works (other than power intake works) are an integral part of the dam structure.
		2.	Elevator, Complete with Operating Mechanism, excluding embedded parts	40	Elevator, Complete	
		3.	Engine Generator Set, 100 - kw and over	40	Generator Set, Complete	
		4.	Main Power and Lighting Boards, complete with attached Accessory Equipment	35	Board Complete	Standby power source.
		5.	Air Compressors, Complete, 100 cfm and over	25	Compressor, Complete	Does not include unattached air receivers.
		6.	Floating Trash Boom, Complete	25	Each independent facility, complete	Applicable only when the outlet works (other than power intake works) are an integral part of the dam structure. Installed cost of removable
		7.	Reserved			portion of trash racks only should be included here.
		8.	Trash Racks	75	Complete Set for one Outlet	
		9.	Trash Removal Equipment	40	Independent system, complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
044	332		POWER INTAKE WORKS (CONT'D) Cranes, complete (excluding Mobile and Crawler types) Stoplogs and Bulkheads Lifting Beams Frames, Concrete or Steel Lighting System, excluding Lighting Boards and attached Accessory Equipment Water System, excluding piping Compressor Air System, excluding compressors 100 cfm and over Power System, excluding Power Boards and Engine Generator Sets 100-kw and over Sewer System, excluding piping All components not listed elsewhere	50 50 40 40	Crane, complete Complete Set for all Intakes Complete Set for all beams related to Power Intakes Complete System Complete System Complete System Complete System Complete System - Package unit None	Including a applicable portion of the mass concrete structure.
		8.				
		h.				
		i.				
		j.				
		k.				
		l.				
		m.				
		n.				
		o.				
		p.				
		2.	Elevators, complete with Operating Mechanism, excluding embedded parts	40	Elevator, complete	
		3.	Engine Generator Sets 100-kw and over	40	Generator Set, Complete	Installed cost of removable portion of trash racks only should be included here.
		4.	Trash Racks	75	Complete Set for one Penstock	
		5.	Main Power and Lighting Boards, complete Unit with attached Accessories	35	Board, complete	
		6.	Air Compressors, complete, 100 cfm and over	25	Compressor, complete	Does not include unattached air receivers.
		7.	Timber Flumes	25	Complete System	
		8.	Floating Trash Booms	25	Each independent facility, complete	
		9.	Roof Coverings, 3,000 sq. ft. and over	20	Complete roof covering for one building or structure	
		10.	Trash Removal Equipment	40	Independent system, complete	
045	332		AUXILIARY DAMS Use same property items as prescribed for Account 041 - MAIN DAMS, as applicable		Same retirement items as prescribed for Account 041 - MAIN DAMS as applicable.	
046	332		MUNICIPAL AND INDUSTRIAL WATER DELIVERY FACILITIES Use same property items as prescribed for Account 044 - POWER INTAKE WORKS, as applicable		Same retirement item as prescribed for account 044 - POWER INTAKE WORKS, as applicable.	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
05	332		LOCKS Basic Features, excluding other principal items Structure, excluding Timber Structures Gates	50	Complete Item, including subitems a - o Structure, complete Mitre Gate, consisting of right and left Gate Leaves, complete; or gate complete for other type. Complete System for one Gate Control House, complete	
		a.			Building, complete	
		b.			Complete System	
		c.			Complete System	
		d.	Machinery, Gate Operating Control House, separate from Lock Structure		Complete System	
		e.	Operating Buildings, Concrete (excluding replaceable roofs 3,000 sq. ft. and over)		Complete System	
		f.	Water System	40	Complete System	
		g.	Sewer System	40	Complete System	
		h.	Heating and/or Ventilating System		Complete System	
		i.	Filling and Emptying Valves and Operating Equipment		Complete System	
		j.	Lighting System excluding Lighting and attached Accessory Equipment		Complete System	
		k.	Compressed Air System, excluding Compressors 100 cfm and over		Complete System	
		l.	Main Power System, excluding Power Boards and Engine Generator Sets 100-kw and over		Complete System	
		m.	Stoplogs and Bulkheads		Complete System	
		n.	Cranes, complete, excluding Mobile and Crawler types	50	Complete Set, for all Systems	
		o.	All Components not listed elsewhere Operating Buildings, other than Concrete, not part of Lock Structure, excluding Control Houses, excluding replaceable roofs 3,000 sq. ft. and over per building		Crane, complete None	
	2.		Radio towers, 80 feet and over		Building, complete	
	3.		Elevators, complete, with Operating Mechanism, excluding embedded parts and over	50	Tower, complete	
	4.		Engine Generator Sets, 100-kw and over	40	Elevator, complete	
	5.		Main Power, Lighting, and Control Boards, complete with attached accessories	40	Generator Set, complete	
	6.		Air Compressors, complete, 100 cfm and over	35	Board, complete	
	7.		Moorage and Lock Approach Structures	25	Compressor, complete	Does not include unattached air receivers.
	8.		Guide Walls, Dolphins and other Guide Structures, timber	25	Structures, complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
05	332		LOCKS (CONT'D) Mooring Dolphins and other Facilities for Temporary Moorage of Water-borne Traffic Bulkheads and Retaining Walls Roof Coverings, 3,000 sq. ft. and over per building	20	Structure, complete Structure, complete Complete Roof Covering for one Building or structure	
	9.	a.	Radio communications equipment, location including transmitter, receiver power supplies, auxiliary generators, batteries, cables, and antennas, but excluding land and improvements, buildings, and tower 80 feet and over	15	Complete System	
	10.	b.				
06	(*)		FISH AND WILDLIFE FACILITIES Fishladders Structures, including Collection Channel and Training Walls Weirs Stoplogs Valves, Gates and Operating Machinery Other Fishladder components not listed elsewhere	100	Complete, including subitem a - o	Include all radio or microwave communication equipment provided exclusively for navigational communications. Buildings provided for communications exclusively to be included under Item 1c or 2, above, as applicable.
	1.	a.	Fish Elevator and Fishlocks, complete with Operating Mechanism, excluding embedded parts	50	Independent Structure, complete	
	2.	b.	Fish Propagation Facilities not otherwise listed	50	Complete System for one Fishladder	
	3.	c.	Wildlife Preservation Facilities not otherwise listed	50	Complete System for one Fishladder	
	4.	d.	Buildings, concrete, excluding replaceable roofs 3,000 sq. ft. and over per building	50	None	
	5.	e.	Buildings, other than Concrete, complete, excluding replaceable roofs, 3,000 sq. ft. and over per building	50	Elevator or Lock, complete	
	6.		Fish Attraction Water Pumps and Motors under 250 hp	50	Facility, complete	
	7.		Pump, Impeller, 1,500 hp and over	50	Facility, complete	
	8.		Pump, Impeller, 250-1,499 hp	50	Building, complete	
	9.		Pump motor, Stator Winding, 1,500 hp and over	50	Building, complete	
	10.		Pump motor, Stator Winding, 250-1,499 hp	30	Complete Set of all pumps and motors	
	11.		Pump motor, Thrust Bearing, 1,500 hp and over	40	Impeller, complete	
	12.			30	Impeller, complete	
				35	Stator Winding, complete (less Stator Iron)	
				20	Stator Winding, complete (less Stator Iron)	
				35	Thrust Bearing, complete	

(*) May be either FERC Account 331 or 332

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Account Number	PRIN - CIPAL ITEM	SUB - ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
06	(*)		FISH AND WILDLIFE FACILITIES (CONT'D) Lighting System, excluding Lighting Boards and attached Accessory equipment Main Power System, excluding Power Boards, Engine Generator Sets 100-kw and over and Transformers 1,000 Kvq and over Main Power, Lighting and Control Boards, complete with attached accessories Transformers, Liquid-filled or Air or Gas insulated, 1,000 kva total or more in one or more phases not part of power board Engine Generator Sets, 100-kw or over Air Compressors, complete, 100 cfm and over Roof Coverings, 3,000 sq. ft. or over per building Trucks and Fish Transportation Tanks	50 50 35 40 40 25 20 10	Each Independent System, complete Each Independent System, complete Board, complete Transformer, complete Generator Set, complete Compressor, complete Complete roof covering for one building Truck, complete; or Tank, complete including Refrigeration and Aeration Equipment, if applicable Station, complete Station, complete As applicable	Does not include unattached air receivers.
07	-		As Fish Trapping Station, Concrete complete Fish Trapping Station, Timber, complete As Fingerling By-pass Channels, Systems applicable and Equipment	XX	As applicable	There is extreme variation in the structural and mechanical features of the various types of by-pass facilities provided and recently constructed facilities consist of comparatively experimental innovations. Therefore proposed subunits, retirement units, and estimated service lives will be submitted to HQDA, CECW-OM-O, WASH, DC 20314 for approval by each affected district.
071	331	1.	POWER PLANT POWER HOUSE Basic Structure, excluding other principal items a. Lighting Systems, excluding Boards and attached Accessory Equipment	100	Complete Structure, including subitems a - c System, complete	These systems are relatively experimental with extreme variation in physical features of various types of facilities provided. Therefore, proposed subunits with service lives will be submitted to HQDA, CECW-OM-O, WASH, DC for approval by a affected districts.

(*) May be either FERC Account 331 or 332

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Account Number	PRIN - CIPAL ITEM	SUB - ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
072	333		<u>TURBINES AND GENERATORS</u> (COND'T) Generator Stator Windings	35	Complete winding for one Generator, installed	See additional instructions on next page.
	7.		Thrust Bearings	50	Bearing, complete	See additional instructions on next page.
	8.		Exciters, Main and Pilot	35	Complete Assembly for one Generator	
	9.		Direct - connected Governor Air Compressor	25	Complete Assembly	
	10.		100 cfm and over Compressor, complete, primarily for draft tube water depression	25	Compressor, complete	Piping and separate air receivers should be included in item f, a bove.
	11.		while condensing	40	Complete assembly for one generator	
	12.		Speed increaser			

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Account Number	FERC	PRINCIPAL ITEM	SUB-ITEM	PLANT ITEMS	PERCENT OF TOTAL COST OF TURBINE, GENERATOR, OR GOVERNOR			REMARKS
					Normal	FROM (%)	TO (%)	
072	333			TURBINES AND GENERATORS SERVICE (CONDT) The allowable range of percentages of original cost of replaceable components to the total original cost of generators turbines, or governors are indicated below.				
		4.		Rotor Winding	3	7	10	Rotor winding and insulation installed. Does not include pole iron.
		5.		Turbine Runner - Francis	9	13	15	Runner less shaft.
		5.		Turbine Runner - F.B.	9	13	15	Runner including hub and cone less shaft.
		5.		Turbine Runner - Kaplan	17	22	25	Runner, cone, hub, and hub mechanism less shaft and servo mechanism not installed in hub.
		6.		Gov. Oil Pressure Pumps	5	10	15	Pump and Motor only.
		7.		Gov. Ball Head	0.5	1.0	2	The speed control assembly including the fly balls only.
		8.		PMG Assembly	2	3	5	The PMG including the drive assembly (Part of the governor).
		9.		Stator Winding	12	16	20	The installed cost of the winding including the ties, wedges, and similar items and including the circuit rings but excluding the stator iron (a rewind unit will also include the cost of disassembly and reassembly as applicable).
		10.		Thrust Bearing	2	5	8	Includes only the shoes or segments and their supports and adjustment mechanism and the thrust runner.
		11.		Exciters, Main & Pilot	2	5	8	The generator mounted exciters and pilot exciters only. Excitation cabinets containing voltage regulation rheostat, field breakers and miscellaneous controls as well as separately mounted generators sets should be included in principal item 9 of account 73.1.
		12.		Governor Air Compressor	1	2	5	Only compressor units 100 cfm or larger should be included under this item.

Note: In using the above percentages the cost of the water depressing system or the speed increaser should not be included in the cost of the turbines, governors, or generators.

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
073 C of E FERC	334	1.	POWERPLANT ACCESSORY ELECTRICAL EQUIPMENT	50	Complete unit, including subitems a-f	
			Miscellaneous Equipment			
			Generator, Neutral Grounding Equipment including Neutral Breakers			
			Main Generator Bus or Cable System			
			Station Service Main Bus or Cable System			
			Annunciator System, including Switchboard mounted equipment			
			Grounding System, including Powerhouse Grounding Mat			
			All components not listed elsewhere			
			Transformer, Station Service, liquid filled or Air or Gas insulated 1,000-kva or more in one or more phases (excluding those installed as part of Station Service Power Boards)			
			Antenna Towers, 80-foot and higher			
			Radio or Microwave Buildings			
			Main Generator Switchgear and Breakers including Air Compressors when applicable			
2.	Engine Generator Sets 100-kw and over	40	Generator Set, complete	Include here if used for general station service, otherwise include under the feature for which furnished.		
3.	Lighting and Power Boards for Station Service and Unit Auxiliaries, including Breakers, Transformers, and attached Accessories	35	Board, complete			
4.	Control and Auxiliary Switchboards and Beachboards, including attached Accessories (excluding applicable items listed below)	50	Panel, or Panels, complete, devoted to a single purpose			
5.	Voltage Regulation and Excitation Equipment including Motor-Generator Set, when required (Main generating units only)	35	Complete System for one Generator	Generally furnished as part of the main generator contract.		
6.	Battery Switchboards including attached accessories	35	Board, complete			
7.	Control Cable System	35	System, complete for Control Board, Panel, or Panels, devoted to a single purpose	Does not include separately mounted motor-generated sets.		
8.	Load Control Equipment	15	System, complete for entire plant			

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
073	C of E FERC 334		POWERPLANT ACCESSORY ELECTRICAL EQUIPMENT (COND) Recording Annunciators mounted separately from switchboard Data Logging Equipment mounted separately from Switchboard Electronic Supervisory Control and Data handling equipment Central Processor, electronic control installation Radio, microwave, or carrier equipment, complete system at one location including transmitter, receiver, power supplies, auxiliary generators, batteries, cables, and antennas, but excluding land and improvements, buildings, and towers 80 ft and over	15 15 15 15	System, complete System, complete System, complete System, complete	
074	335		Storage Battery, 125 volts and over Automatic Recording Oscillographs	15 20 15	Each independent system complete Battery, complete Oscillograph, complete	Include in this account when provided primarily for remote control of generating facilities.
		1.	MISCELLANEOUS POWERPLANT EQUIPMENT Miscellaneous Equipment not listed elsewhere a. Bridge or Gentry Cranes b. Tailrace Cranes, complete, (excluding Mobile or Crawler types) c. Lubricating oil systems (excluding oil purifiers listed under item 4) d. Drainage and Unwatering System, including Pumps e. Fire Protection, High-pressure Water System, including Pumps f. Station air system, excluding compressors 100 cfm and over g. All components not listed elsewhere Antenna Tower, 80- feet and higher	50 50 50	Complete unit, including subitems a - g Crane, complete Crane, complete System Complete	Include in this account when provided primarily for communications or data transmissions in powerhouse generations. Include in this account when provided primarily for communications or data transmissions in powerhouse generations.
		2.	Radio or Unwatering System, including Pumps	50	System Complete	
		3.	Fire Protection, High-pressure Water System, including Pumps	50	Building, complete	
		4.	Station air system, excluding compressors 100 cfm and over	35	Purifier, complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
074	335	5. 6. 7.	MISCELLANEOUS POWERPLANT EQUIPMENT (CONDPT) Air Compressors complete, 100 cfm or over Plant Communication Equipment, including Telephone, Code Call, and Voice Recording Systems Radio, microwave or carrier equipment complete system at one location including transmitter, receiver, power supplies, auxiliary generators, batteries cables and antennas, but excluding land and improvements, buildings and towers 80 feet and over	25 15 15	Compressor, complete Each independent system, complete Each independent system, complete	Does not include unattached air receivers. Include equipment installed in the power generating station for interplant communication in connection with power plant operation.
075	332	1.	TAILRACE Tailrace, complete	100	Complete Tailrace, including subitems a - b Complete Set None	Include draft tube bulkhead, stoplogs and other facilities used for draft tube unwatering.
076	331	1. a. b. c. d. e. f. g. h. i.	SWITCHYARD Miscellaneous Structures and Equipment Steel Structures, complete (excluding foundations) Bus & Insulators, including mounting hardware Lighting System, excluding Boards and attached Accessory Equipment Conduit, Steel, Power and Control Insulating Oil storage and piping system (Does not include oil purifiers listed under item 10) Power Transformer, 1,000 kva and over including Auto Transformers Main Power Cable, 15-kv and over Grounding System, including Grounding Mat, if separate from Powerhouse All components not listed elsewhere Reactor, Shunt or Series, 15-kv and over	50 50 45 50	Complete Item, including subitems a - i Complete Switchyard Structural System Complete System Complete System Complete System Transformer, complete, excluding windings System, complete for each transformer System, complete None Reactor, complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
076	331		<u>SWITCHYARD (CONDT)</u> Lighting Arresters, 15-kv and over per phase Transformers, Instrument, 15-kv and over, PT and CT Transformer, Regulating Circuit Breakers, 15-kv and over Disconnecting Switches, 15-kv and over Coupling Capacitors, including auxiliary equipment Carrier Current Line Traps Oil Purifiers, Portable or Fixed, Centrifugal, Vacuum, or Clay Treatment, with or without Filter Press 600 gph or over Control Cable Systems Lighting and Power Boards, complete with attached Accessory Equipment	35 45 45 50 50 35 35	Complete three-phase Set Transformer, complete Transformer, complete Breaker, complete Switch, complete Coupling Capacitor, complete One unit for all Traps	
08	336		<u>ROADS, RAILROADS AND BRIDGES</u> Railroads a. Rails b. Ties and Ballast c. Road Beds, Railroad, including Culverts d. Bridges, Concrete, Steel or Masonry e. All components not listed elsewhere 2. Roads a. Roadway Base and Culverts b. Roadway Surfacing c. Bridges, Concrete, Steel or Masonry d. All components not listed elsewhere 3. Bridges and Trestles, Railroad Timber 4. Bridges, Roadway, Timber	100 100 40 25	Complete item, including subitems a - c Rails for complete System Complete System Complete System Bridge, complete None Complete item, including subitems a - d Base for each independent road Surfacing for each independent road Bridge, complete None Complete Structure Bridge, complete	Used only for insulating oil purification.
09	332		<u>CHANNELS AND CANALS</u> Basic Features a. Concrete Buildings, excluding replaceable Roof Coverings of 3,000 sq. ft. or over b. Other Concrete Structures	100	Complete item, including subitems a - c Building, complete Structure, complete	

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Account Number	PRIN- CIPAL ITEM	SUB- ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS	
09	332	c.	CHANNELS AND CANALS (CONDT) Other Components not listed elsewhere including Excavated Channels and Canals		None		
			2.	Buildings, other than Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more per building	50	Building, complete	
			3.	Piers, Mooring Facilities, Bulkheads, Training Walls, trash Booms; timber Roof Coverings, 3,000 sq. ft. or more per building	25	Independent Structure, complete	
			4.		20	Roof Covering, complete for one building or structure	
11	332	1.	LEVEES AND FLOODWALLS				
			a.	Basic Features	100	Complete item, including subitems a - c Complete System	
			b.	Roadways		Independent System, complete	
		c.	Other Components not listed elsewhere		None		
13	331	1.	PUMPING PLANTS				
			a.	Basic Features	100	Complete item, including subitems a - c	
				Concrete Buildings, excluding replaceable Roof Coverings of 3,000 sq. ft. and over per building		Building, complete	
			b.	Pumps and Prime Movers, excluding components listed in items 2 thru 15, below		Complete Pump with Prime Mover	
				Other components not listed elsewhere		None	
			2.	Buildings, other than Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more per building	50	Building, complete	
			3.	Transformers, liquid-filled or Air or Gas insulated, 1,000 - kva or more, in one or more phases	45	Transformer, complete	
			4.	Engine Generator Sets, 100 - kw or more	40	Generator Set, complete	
			5.	Lighting, Power and Control Boards, complete with attached Accessory Equipment	35	Board, complete	
			6.	Air Compressors, complete, 100 cfm and over	25	Compressor, complete	
7.	Roof Covering of 3,000 sq. ft. or more per building	20	Roof Covering, complete for one building or structure				
8.	Pump Impeller, 1,500 hp or more	40	Impeller, complete				
9.	Pump Impeller, 250 - 1,499 hp	30	Impeller, complete				
10.	Pump Motor, Stator Winding, 1,500 hp or more	35	Stator Winding, complete for one motor				

Does not include unattached air receivers.

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
13	331	11.	<u>PUMPING PLANTS (CONDT)</u> Pump Motor, Stator Winding, 250 - 1,499 hp	20	Stator Winding, complete for one motor	
		12.	Pump Turbine Runner, 1,500 hp or more	40	Runner complete for one pump turbine	
		13.	Pump Turbine Runner, 250 - 1,499 hp	30	Runner complete for one pump turbine	
		14.	Pump Engine, 250 hp and above	40	Engine, complete	
		15.	Pump Engine, 100 - 249 hp	25	Engine, complete	
14	331	1.	<u>RECREATIONAL FACILITIES</u> Roads, excluding Timber Bridges Roadway Base and Culverts Surfacing	100	Complete item, including subitems a - d - Base, complete for each independent road Surfacing, complete for each independent road	
		a.	Bridges; Steel, Concrete, or Masonry		Bridge, complete	
		b.	All Components not listed elsewhere		None	
		c.	Parking Areas	100	System complete for each development or site	
		d.	Other Recreation Developments, excluding components listed elsewhere	100	Complete item, including subitems a - c System complete for each development or site	
		2.	Buildings, Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more per building		Building, complete	
		3.	Other Components not listed elsewhere		None	
		4.	Buildings, other than Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more per building	50	Building, complete	
19	331	5.	Piers, Docks, Booms, and Bridges; Timber	25	Independent Structure, complete	
		6.	Roof Coverings of 3,000 sq. ft. or more per building	20	Roof Covering, complete for one building	
		1.	<u>BUILDINGS, GROUNDS AND UTILITIES</u> Basic Features	50	Complete item, including subitems a - g	
		a.	Buildings, Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more		Building, complete	
		b.	Power Distribution and Exterior Lighting Systems		System complete, each system	
		c.	Water System		System complete	
		d.	Sewer System and Drainage System		System complete, each system	
		e.	Local Streets, Curbs, and Sidewalks		System complete, each system	
		f.	Piers, Docks, and mooring facilities; Concrete		Independent Structure, complete	
		g.	Other Components not listed elsewhere	50	None	
2.	Personnel Housing		Building, complete			

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
19	331	3.	<u>BUILDINGS, GROUNDS AND UTILITIES (CONDT)</u> Operational Buildings and Structures, other than Concrete, excluding replaceable Roof Coverings of 3,000 sq. ft. or more	50	Building, complete	
		4.	Piers, Docks, and mooring facilities; Timber	50	Building or Structure, complete	
		5.	Roof Coverings 3,000 sq. ft or more	20	Roof Coverings, complete for one building	
20	335		<u>PERMANENT OPERATING EQUIPMENT</u>			
		1.	<u>Floating Plant</u>			
		2.	Dredges	50	Dredge, complete	
		3.	Tug Boats	25	Boat, complete	
		4.	Tenders	25	Tender, complete	
		5.	Drift Collectors	25	Vessel, complete	
		6.	Towboats	25	Boat, complete	
		7.	Patrol Boats	25	Boat, complete	
		8.	Saug Boats	25	Boat, complete	
			Drill Boats or Barges and Jet-probing Barges	25	Boat or Barge, complete	
		9.	Derrickboats or Barges	25	Boat or Barge, complete	
		10.	Maneuver Boats	25	Boat, complete	
		11.	Barges, Mooring	25	Barge, complete	
		12.	Other Major Non-group Floating Plant	25	Boat, barge, vessel, or plant item complete with all Accessory Equipment	
		13.	Miscellaneous Floating Plant, initial cost, new of \$25,000 or more per unit			
		a.	Barges, or Floating Work Platforms	25	Barge, or other item, complete	
		b.	Boat, Outboard, excluding Motors	20	Motor, complete	
		c.	Motors, Outboard	10	Motor, complete	
		14.	Other items not listed elsewhere	25		
			<u>Automotive Land Plant</u>			
		1.	Station Wagons (passenger car chassis) Group C	7	Vehicle, complete	
		2.	Ambulances (light) - Group D	10	Vehicle, complete	
		3.	Ambulances (heavy) - Group DI	10	Vehicle, complete	
		4.	Trucks, 1/4-ton, 4x4 - Group E	7	Vehicle, complete	
		5.	Carryalls (including Station Wagons mounted on Truck Chassis) - Group E1	10	Vehicle, complete	
		6.	Trucks, Panel and Sedan Delivery Group E2			
		7.	Trucks, Pickup - Group F	7	Vehicle, complete	
		8.	Trucks, 3/4 - 1-Ton - Group G	7	Vehicle, complete	
		9.	Trucks and Truck Tractor, 1 1/2-Ton - Group H	8	Vehicle, complete	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SHRV LIFE YRS	RETIREMENT UNITS	REMARKS
20	335		PERMANENT OPERATING EQUIPMENT (CONDT) Other Mobile Land Plant Items not listed elsewhere, including items with initial cost, new, of less than \$25,000 per unit			
	1.		Locomotive and Railroad Cars	10	Locomotive or Car, complete	
	2.		tractors, Wheel-mounted, initial cost \$25,000 or more	100		
	3.		tractors, Wheel-mounted, initial cost \$25,000 or more	12	Tractor, complete	
	4.		Tractors, Crawler, including Bulldozers initial cost \$25,000 or more	15	Tractor, complete	
	5.	a.	Cranes, Mobile	15		
		b.	Cranes, Wheel-mounted, excluding those classified as Automotive Equipment		Crane, complete	
		c.	Cranes, Crawler type		Crane, complete	
	6.		Earth-moving Equipment, initial cost, \$25,000 or more per unit	15		
		a.	Scraper-carriers, Self-propelled or Towed		Scraper or Scraper-Carrier, complete	
		b.	Rollers, Self-propelled or Towed		Roller, complete	
		c.	Back Hoes, excluding Back Hoe attachments for general purposes			
		d.	Tractors or Cranes		Back Hoe, complete	
		e.	Loaders, excluding attachments for general purpose tractors		Loader, complete	
		f.	Ditchers, Trenchers, Excavators, and Backfillers, excluding attachments for other basic equipment		Ditcher, Trencher, Excavator, complete	
	7.		Graders, Self-propelled or Towed	20	Grader, complete	
	8.		Material-handling Equipment, initial cost, new, \$25,000 or more, per unit	15	Fork Lift, Material Carrier, complete	
			Miscellaneous Equipment, initial cost, new, \$25,000 or more, per unit		Street Sweeper, or other machine, complete	
	1.		Office Furniture and Equipment Furniture (Desks, Tables, Chairs, Lockers, Files, Map Cases, Bookcases, and Safes)			
		a.	Miscellaneous Items, initial cost, new, less than \$25,000 per unit	10	None	
		b.	Safes, Special Equipment, etc., initial cost, new, \$25,000 or more per unit	20	Safe or other item, complete	
	2.	c.	Operation and Maintenance Manuals Equipment, such as Typewriter, Adding Machines, Calculators, Duplicating and Recording Machines, Key Punch Equipment, Electronic Calculators and Computers	100	None	
				10	None	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
20	335		PERMANENT OPERATING EQUIPMENT (CONDT) Office Furniture and Equipment Miscellaneous Equipment not listed elsewhere, including items initial cost, new, less than \$25,000 per unit Office Machines, such as Accounting Machines, Dictating Machines, typewriters, Adding Machines, Key Punch and Electronic Mechanical Processors, Electro-Mechanical Calculators, initial cost, new, \$25,000 or more per unit Electronic-calculators, computers, and related items Duplicating and Reproducing Machines initial cost, new \$25,000 or more per unit			
		a.		10	None	
		b.		15	Each machine, complete	
		c.		15	Calculator, computers, complete	
		d.		15	Blueprint or print machine, complete	
		1.	Material - Handling Equipment Miscellaneous Equipment not listed elsewhere, including items initial cost, new, less than \$25,000 per item (including shelving, storage bins, portable conveyors, dollies, and similar equipment)	50	None	
		2.	Fixed-conveyor Systems (Mono-rail, Roller Type) initial cost, new, \$25,000 or more per system	25	System, complete	
		3.	Special Storage Racks, Bins, Ramps, Platforms, and similar equipment, independent of other Structures, initial cost, new, \$25,000 or more per unit	25	Rack, ramp, or other item, complete	
		1.	Shop Tools and Equipment Miscellaneous Fixed Shop Equipment not listed elsewhere, including items initial cost, new, less than \$25,000 per unit	10	None	
		2.	Major Fixed Shop Equipment consisting of such items as lathes, shapers, drying ovens, Forges, pipe, and sheet metal machines, table and band saws, initial cost, new, \$25,000 or more per unit	25	Each machine or device, complete	
		3.	Miscellaneous Portable Shop Equipment and Tools not listed elsewhere, initial cost, new, less than \$25,000 per unit	10	None	

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Account Number	PRIN-CIPAL ITEM	SUB-ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
20	335		PERMANENT OPERATING EQUIPMENT (CONDT) Laboratory and Testing Equipment Miscellaneous Equipment not listed elsewhere, including items initial cost, new, less than \$25,000 per unit Major Equipment, initial cost, new. Electrical Test Instruments and Devices Recording Electrical Test Instruments and Devices Indicating Oscillographs and Oscilloscopes Other Electrical or Electrical Testing Devices Scientific Measuring and Recording Instruments and Devices, for example, Weather Recording Instruments, hydrologic Data and Gathering Devices Other equipment not listed elsewhere	10 20	Instrument or device, complete Instrument or device, complete Oscillographs or Oscilloscopes, complete Instrument or device, complete Instrument or device, complete Instrument or device, complete	Include structures provided to house measuring and recording equipment such as cableways, etc.
	1.	a.	Portable Work Equipment not listed elsewhere, including items less than \$25,000 initial cost, new	10	None	
	2.	b.	Portable Work Equipment initial cost, new, \$25,000 or more, including such items as Compressors, Welders, Portable Floodlighting Units, Ventilating Blowers and Ductwork, Powered Staging and Work Platform, Pumps and similar items	10	None	
	3.	c.	Communication Equipment	20	Machine or device, complete	
	1.	d.	Miscellaneous Equipment not listed elsewhere, such as mobile and portable radio equipment	15	None	Include in this account when provided primarily for general project communications. Buildings provided to house communication equipment exclusively will be included in applicable items under account 19.
	2.	e.	Radio, microwave, or carrier equipment complete system at one location, including transmitter, receiver, power supplies, auxiliary generators, batteries, cables, and antennas, but excluding land and improvements, buildings, and towers 80 feet and over	15	Independent System, complete	
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Account Number	PRIN- CIPAL ITEM	SUB- ITEM	PLANT ITEMS	SERV LIFE YRS	RETIREMENT UNITS	REMARKS
20	335		<p><u>PERMANENT OPERATING EQUIPMENT (COND'T)</u> Communication Equipment Telephones, Code Call, or Voice Recording Communication System Antennas Towers, 80-foot and higher Closed-Circuit TV Systems Cameras, complete with local control equipment, excluding support towers Remote Control Stations Data Transmitter and Relay (Telemetry System not listed elsewhere)</p> <p><u>AUDIO VISUAL EQUIPMENT</u> Miscellaneous equipment not listed elsewhere, including items initial cost, new, less than \$25,000 Automatic slide projector, continuous type movie projector, message repeaters and similar devices, original cost, new, of \$25,000 or over per unit for each self-contained device, or each combination of devices contained in a common cabinet excludes films, transparency, voice recordings and similar items</p>	15 50 15 15 10 15	Independent System, complete Tower, complete Complete items, including subsystems a-c Camera, complete Station, complete Separate amplifier installation, complete Independent System, complete None Each self-contained device or combination of devices in a common	Include in this account when provided for general project communications.

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