

VOLUME I
INSTRUCTION MANUAL
FOR
INSTALLATION, OPERATION, & MAINTENANCE
AUXILIARY & ISOLATION RELAY CABINETS
GENERATOR PROTECTION CABINET
METERING CABINET & AUTO SYNCHRONIZER CABINET
FOR THE
ARIZONA PUBLIC SERVICE COMPANY
PALO VERDE NUCLEAR GENERATING STATION
UNITS 1, 2, AND 3
PURCHASE ORDER NO. 10407-13-EM-022

ATTACHMENT A

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1.1.1 MATERIAL LIST ZJA-C01
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	27	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	43	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	27	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
10	3	S-103E S-104E	Westinghouse ARD660SR Aux. Relay, 120VDC with ARDA40R, 4 pole adder
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022- 3
Elev.	E-13966N Sh. 13K	13-10407-E022- 170
Wire	See Wire Draw. List	

1.1.2 MATERIAL LIST ZJA-C03
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	28	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	20	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	20	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
11	2	S-107E	Agastat 7022PC Time Delay Relay
14	15	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	15	S-114AE	Shawmut OT-6 Fuses, 5A, 250VDC
15	21	S-110E	Ohmite 210 Resistor, 400 Ohm, 75 Watt, Cat. No 62544
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL- $\frac{1}{2}$ Handy Box
23	1	S-910	Appleton 4-0 $\frac{1}{2}$ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13L	13-10407-E022-171
Wire	See Wire Draw. Index	

1.1.3 MATERIAL LIST ZJB-C01
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	27	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	35	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	35	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
10	3	S-103E S-104E	Westinghouse ARD660SR Aux. Relay, 120VDC with ARDA40R, 4 pole adder
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022- 3
Elev.	E-13966N Sh. 13M	13-10407-E022- 172
Wire	See Wire Draw. List	

1.1.4 MATERIAL LIST ZJB-C03
(Class 1E)

Item	Quantity	Harlo No.	Description
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Panduit Noryl Wire Duct
5	1		Ground Bus/12 terminal screws
6	27	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	20	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt, Cat. No. 62542
8	20	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
10	1	S-103E S-104E	Westinghouse ARD550SR Aux. Relay, 120VDC, with ARDA40R 4 Pole Adder
11	2	S-107E	Agastat 7022PC Time Delay Relay
14	12	S-114E	Shawmut 20675 Fuse Block, 1 P.
14A	12	S-114AE	Shawmut OT-6 Fuses, 5A, 240VDC
15	21	S-110E	Ohmite 210 Resistor, 400 Ohm, 75 Watt, Cat. # 62544
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S-910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	Harlo No.	Bechtel No.
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh 13N	13-10407-E022-173
Wire	See Wire Draw Index	

1.1.5. MATERIAL LIST ZAA-C01
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	8	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	17	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	18	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	17	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	18	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Brndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E0223
Elev.	E-13966N Sh. 13	13-10407-E022-157
Wire	See Wire Draw. Index	

1.1.6 MATERIAL LIST ZAA-C03
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	33	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	33	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13A	13-10407-E022-199
Wire	See Wire Draw. Index	

1.1.7. MATERIAL LIST ZAA-C04
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	29	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	37	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S-910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13B	13-10407-E022-200
Wire	See Wire Draw. Index	

1.1.8 MATERIAL LIST ZAA-C05
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	27	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	39	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1.P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S-910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13C	13-10407-E022-201
Wire	See Wire Draw. Index	

1.1.9 MATERIAL LIST ZAA-C06
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	28	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	29	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	37	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
10	2	S-103E S-104E	Westinghouse ARD660SR Aux. Relay, 120VDC with ARDA40R, 4 pole adder
14	18	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	18	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No.62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13D	13-10407-E022-202
Wire	See Wire Draw. Index	

1.1.10 MATERIAL LIST ZAB-C01
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	7	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	16	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	19	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	20	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	15	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022- 3
Elev.	E-13966N Sh. 13E	13-10407-E022- 203
Wire	See Wire Draw. Index	

1.1.11 MATERIAL LIST ZAB-C03
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	33	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	33	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-1/2 Handy Box
23	1	S-910	Appleton 4-0 1/2 Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13F	13-10407-E022-204
Wire	See Wire Draw. Index	

1.1.12 MATERIAL LIST ZAB-C04
(Class 1E)

Item	Quantity	Harlo No.	Description
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	33	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	33	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL- $\frac{1}{2}$ Handy Box
23	1	S-910	Appleton 4-0 $\frac{1}{2}$ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	Harlo No.	Bechtel No.
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13B	13-10407-E022-205
Wire	See Wire Draw. Index	

1.1.13 MATERIAL LIST ZAB-C05
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	30	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	33	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	33	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
14	4	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	4	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No 62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson, 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022- 3
Elev.	E-13966N Sh. 13H	13-10407-E022- 206
Wire	See Wire Draw. Index	

1:1.14. MATERIAL LIST ZAB-C06
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
1	6	S-101E,	Westinghouse 129A501G01, FT1 Test Switch
3	70	S-904E	Westinghouse 804A911G04, Term. Block, 12 P
4			Noryl Wire Duct
5	1		Ground Bus/12 Terminal screws
6	28	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
7	33	S-108E	Ohmite 210 Adj. Resistor, 800 Ohm, 50 Watt Cat. No. 62542
8	33	S-109E	Ohmite 210 Adj. Resistor, 1500 Ohm, 25 Watt Cat. No. 62543
10	2	S-103E S-104E	Westinghouse ARD660SR Aux. Relay, 120VDC with ARDA40R, 4 pole adder
14	18	S-114E	Shawmut 20675 Fuse Block, 1 P
14A	18	S-114AE	Shawmut OT-6 Fuses, 6A, 250VDC
17	2	S-112E	Ohmite 210 Resistor, 15K Ohm, 25 Watt, Cat. No 62545
18	2	S-113E	Ohmite 210 Resistor, 10K Ohm, 12 Watt, Cat. No.62546
19	1	S-906	Hubbel 5262 Receptacle
20	1	S-907	Hubbel 1201 Toggle Switch
21	1	S-908	Leviton 9875 Lamp Holder
22	3	S-909	Appleton 4SSL-½ Handy Box
23	1	S-910	Appleton 4-0½ Hex Box
24	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
25	1	S-911	McGill 1438 Lamp Guard
28	2	S-905	Burndy KPA-28 Ground Lug

REFERENCE DRAWINGS:

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 2	13-10407-E022-3
Elev.	E-13966N Sh. 13J	13-10407-E022-190
Wire	See Wire Draw, Index	

1.2.1 MATERIAL LIST ZJA-C02
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
3	16	S-904E	Westinghouse 804A911G04 Term. Block, 12 P
5	1		Ground Bus
6	10	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
16	1	S-906	Hubble 5262 Receptacle
17	1	S-907	Hubble 1201 Toggle Switch
18	1	S-908	Leviton 9875 Lamp Holder
19	3	S-909	Appleton 4SSL-1/2 Handy Box
20	1	S-910	Appleton 4-0 1/2 Hex Box
21	1	S-912	Stromburg-Carlson 702019-390, Telephone Jack
22	As req.		Westinghouse H-7696 Micarta Barrier
23	1	S-911	McGill 1438 Lamp Guard
24	2	S-905	Burndy KPA-28 Ground Lug

CHANNEL SEPARATION

<u>Item</u>	<u>Quantity</u>	
3	5	Term. Blocks, TB1, Class NON1E, Channel N, Color Code - Black
3	5	Term. Blocks, TB3, Class 1E, Channel A, Color Code - Red
3	3	Term. Blocks, TB2, Class 1E, Channel C, Color Code - Yellow
3	3	Term. Blocks, TB4, Class 1E, Channel C, Color Code - Yellow
6	5	Aux. Relays Device Nos. A1, B1, C1, D1, & E1, Coils - Class 1E, Channel A, Color Code - Red
	3	Contacts - Class NON-1E, Channel N, Color Code - Black
6	2	Aux. Relays Device Nos. H1, J1 & K1, Coils - Class 1E, Channel A Color Code - Red
		Contacts - Class 1E, Channel C, Color Code - Yellow
6		Aux. Relays Device Nos. F1 & G1, Coils - Class NON-1E, Channel A, Color Code - Black
		Contacts - Class 1E, Channel A, Color Code - Red

REFERENCE DRAWINGS

Steel	Harlo No. E-13966N Sh. 3	Bechtel No. 13-10407-E022- 5
Elev.	D-13966N Sh. 18	13-10407-E022- 162
Wire	See Wire Draw. Index	

1.2.2 MATERIAL LIST ZJB-C02
(Class 1E)

Item	Quantity	Harlo No.	Description
3	16	S-904E	Westinghouse 804A911G04 Term. Block, 12 P
5	1		Ground Bus
6	10	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
16	1	S-906	Hubble 5262 Receptacle
17	1	S-907	Hubble 1201 Toggle Switch
18	1	S-908	Leviton 9875 Lamp Holder
19	3	S-909	Appleton 4SSL-1/2 Handy Box
20	1	S-910	Appleton 4-0 1/2 Hex Box
21	1	S-912	Stromburg-Carlson 702019-390, Telephone Jack
22	As req.		Westinghouse H-7696 Micarta Barrier
23	1	S-911	McGill 1438 Lamp Guard
24	2	S-905	Burndy KPA-28 Ground Lug

CHANNEL SEPARATION

Item	Quantity	
3	5	Term. Blocks, TB1, Class NON1E, Channel N, Color Code - Black
3	3	Term. Blocks, TB3, Class 1E, Channel A, Color Code - Red
3	5	Term. Blocks, TB2, Class 1E, Channel C, Color Code - Yellow
3	3	Term. Blocks, TB4, Class 1E, Channel C, Color Code - Yellow
6	5	Aux. Relays Device Nos. A1, B1, C1, D1, & E1, Coils - Class 1E, Channel A, Color Code - Red Contacts - Class NON-1E, Channel N, Color Code - Black
6	3	Aux. Relays Device Nos. H1, J1 & K1, Coils - Class 1E, Channel A Color Code - Red Contacts - Class 1E, Channel C, Color Code - Yellos
6	2	Aux. Relays Device Nos. F1 & G1, Coils - Class NON-1E, Channel A, Color doce - Black Contacts - Class 1E, Channel A, Color Code - Red

REFERENCE DRAWINGS

Steel	Harlo No. E-13966N Sh. 3	Bechtel No. 13-10407-E022- 5
Elev.	D-13966N Sh. 19	13-10407-E022- 163

1.2.3. MATERIAL LIST ZAA-C02
(Class 1E

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
3	16	S-904E	Westinghouse 804A911G04 Term. Block, 12 P
5	1		Ground Bus
6	10	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
16	1	S-906	Hubble 5262 Receptacle
17	1	S-907	Hubble 1201 Toggle Switch
18	1	S-908	Leviton 9875 Lamp Holder
19	3	S-909	Appleton 4SSL-1/2 Handy Box
20	1	S-910	Appleton 4-0 1/2 Hex Box
21	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
22	As Req.		Westinghouse H-7696 Micarte Barrier
23	1	S-911	McGill 1438 Lamp Guard
24	2	S-905	Burndy KPA-28 Ground Lug

CHANNEL SEPARATION

<u>Item</u>	<u>Quantity</u>	
3	9	Term. Blocks, TB1, Class NON-1E, Channel N, Color Code - Black
3	3	Term. Blocks, TB3, Class 1E, Channel A, Color Code - Red
3	4	Term. Blocks, TB4, Class 1E, Channel A, Color Code - Red
6	7	Aux. Relays Device Nos A1, B1, C1, D1, E1, F1 & G1 Coils - Class 1E, Channel A, Color Code - Red Contacts - Class NON-1E, Channel N, Color Code - Black
6	3	Aux. Relays, Device Nos H1, J1 & K1 Coils - Class NON-1E, Channel N, Color Code, Black Contacts - Class 1E, Channel A, Color Doce, Red

REFERENCE DRAWINGS

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 3	13-10407-E022-5
Elev.	D-13966N Sh 16	13-10407-E022-160
Wire	See Wire Draw. Index	

1.2.4. MATERIAL LIST ZAB-C02
(Class 1E)

<u>Item</u>	<u>Quantity</u>	<u>Harlo No.</u>	<u>Description</u>
3	16	S-904E	Westinghouse 804A911G04 Term. Block, 12 P
5	1		Ground Bus
6	10	S-103E	Westinghouse ARD660SR Aux. Relay, 120VDC
16	1	S-906	Hubble 5262 Receptacle
17	1	S-907	Hubble 1201 Toggle Switch
18	1	S-908	Leviton 9875 Lamp Holder
19	3	S-909	Appleton 4SSL-1/2 Handy Box
20	1	S-910	Appleton 4-01/2 Hex Box
21	1	S-912	Stromburg-Carlson 702019-390 Telephone Jack
22	As req.		Westinghouse H-7696 Micarta Barrier
23	1	S-911	McGill 1438 Lamp Guard
24	2	S-905	Burndy KPA-28 Ground Lug

CHANNEL SEPARATION

<u>Item</u>	<u>Quantity</u>	
3	9	Term. Blocks, TB1, Class NON-1E, Channel N, Color Code - Black
3	3	Term. Blocks, TB3, Class 1E, Channel B, Color Code - Green
3	4	Term. Blocks, TB4, Class 1E, Channel B, Color Code - Green
6	7	Aux Relays, Device Nos. A1, B1, C1, D1, E1, F1 & G1 Coils - Class 1E, Channel B, Color Code - Green Contacts - Class NON-1E, Channel N, Color Code - Black
6	3	Aux Relays, Device Nos. H1, J1 & K1 Coils - Class NON-1E, Channel N, Color Code - Black Contacts - Class 1E, Channel B, Color Code - Green

REFERENCE DRAWING

	<u>Harlo No.</u>	<u>Bechtel No.</u>
Steel	E-13966N Sh. 3	13-10407-E022-5
Elev.	D-13966N Sh. 17	13-10407-E022-161
Wire	See Wire Draw. Index	

ATTACHMENT B

3.0 EQUIPMENT FOR TEST

3.1 The MSFIS Cabinet Assembly No. 3405-1005 with operational devices, will be the qualification unit. The devices to be qualified represent all the components and circuits which are critical to the performance of the system safety functions. The selected items are as follows:

(a) Power Supply, Technipower CLC 115/15-15

(b) Relay, G.E. 3SAA1425A2 with Potter and Brumfield Socket 27E122

B.1

(contd)

- (c) Line Filter, Corcom 10K1
- (d) Capacitors, Cornell-Dubilier MMW 10568
- (e) Circuit Breaker, ITE Gould EH2-B015
- (f) Switches, Electros witch Type 24201B, C&K 7101K1
- (g) Digital Isolator, Vitro 0423-2695-2, Lamp only
- (h) Terminal Block, Buchanan 5B112N
- (i) Logic Modules with the following components:
 - (1) Connector - Continental K600-11-44XA-GDF
 - (2) CMOS ICs - Motorola MC14584B, MC14071B, MC14001B, MC14075B, MC14043B, MC14518B, MC14538B, Intersil ICM7556MJD
 - (3) Resistors - Allen Bradley Types 316B102, 316A203 and RCR07, RCR20
 - (4) Fuse - Littlefuse 275.375
 - (5) PC Board - 1/16-inch-thick FR4 material
 - (6) Transistor - Sprague ULN 2004A
 - (7) Transorb - General Semiconductor ICTE-15 Zener Diode
 - (8) Diode - IN4004
 - (9) Capacitors - M39003 and M39014
 - (10) Trimpot - Bourns 20P-1-103

ATTACHMENT C

NOTE: TEST COMPONENT ARE LISTED IN THREE PROCEDURES. TWO OF WHICH ARE NOT PRESENTLY AVAILABLE. THE COMPONENTS LISTED HEREIN THEREFORE COMPRISE A PARTIAL LIST.

	BETA PRODUCTS, INC.	TEST PROCEDURE- AGING AND SEISMIC QUALIFICATION BETA PRODUCTS, INC. 1416 Lyford Dr. Carrollton, Texas 75004 DATE: 12/7/80 BY: [Signature] REVISED: 1/3/81 SCALE: 1" = 10' DATE: 1/3/81 PROJECT: 803290 BY: [Signature]
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4.0 TEST ITEMS

The test item is an annunciator module.

The annunciator module (803158) has the following dimensions: 8" wide by 13.5" deep by 14" high. It contains the following parts. Organic materials which might have age related failure mechanisms ^{ARE} all asterisked.

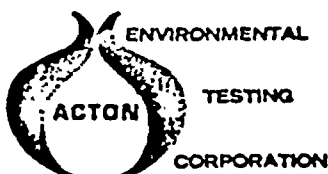
BETA DWGS.	PART
120550-00001	Lamp Holder
124174-00001	Logo
120423-00001	Name Plate Housing
307384-00003	Name Plate
120026-00018	Lamp #1819
120412-00001	Lamp Holder
308047-00001	Divider, Horizontal
601823-00001	Bracket, Thumbscrew
112002-00007	Grommet
116091-00001	Washer, Retaining, Camloc (2600-L.M.)
116090-00001	Stud, Camloc (26S34-5)
116235-00001	Receptacle, Camloc (212-12)
124222-00001	Hinge
120551-00001	Lamp
803164-00001	Clamp, Seismic
803071-00001	Horn, Modification
130030-07114	Nut, Hex 1/4-20 UNC-2B
130019-04140	Screw, Hex Hd. 1/4-20 UNC-2Bx2-1/2 L
803163-00001	Bracket, Seismic
803162-00001	Bracket, Seismic
300937-00001	Nut, Special
803159-00001	Angle, Mounting Bracket
100000-04003	Diode, IN4003

NON
INDICATED

ORGANIC
?

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BETA DWGS.	PART
108039-00003	Terminal Strip, 4 Point (TRW)
120019-00020	Fuse, 5 Amp
112002-00009	Grommet 1/2 I.D. 1/2 I.D.
108173-00001	Terminal Block (G.E.CR151)
120082-00001	Fuseholder, Panel

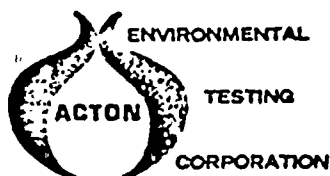
An attached subassembly (803160) has these dimensions: 5.75" wide by 8" deep by 13.675" high. It contains the following parts:

BETA DWGS.	PART
100131-00001	Diode MR 851
102027-00007	Capacitor .1uf 50V
104040-00122	Resistor 1.2K 1/2 W
120698-00001	Spring, Hold Down
120296-00001	Relay
108151-00001	Socket
100000-04003	Diode
116244-00001	Clip
308337-00012	Assy, PCB, Logic Card
308349-00001	Assy, PCB, Control Card
308191-00001	Assy, PCB, Dual Power Fail
108234-00001	Card Receptacle, 18 Pin
108146-00001	Contact
108257-00001	Connector
108396-00001	Contact, Brass, Tin Plate
108404-00006	Connector, 6 circuit Amp
803151-00001	Power Supply (2)

A complete parts lists for both module and subassembly is given below in Table 1.

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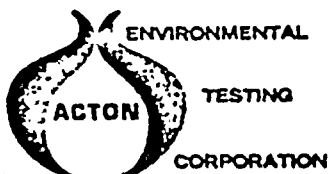
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TABLE 1

BETA PART NO.	ITEM	MFGR.	MATERIAL
120256-00008 *	Horn 10-871P	Edward	Polymethane w/nylon, Nylon 101, Mylar Tape, Cloth Tape, Insulator-unknown material
112002- *	Gromet		Rubber
120412-00001	Lamp Holder	Leecraft	Phenolic & Metal
120550-00001	Lamp Holder	Dialco	Phenolic & Metal
307384-00003	Nameplate	Textool	Polycarbonate
120423-00001	Nameplate Housing	Textool	Polycarbonate
120082-00001	Fuse Holder 342014	Littlefuse	Phenolic
108139-00003	Terminal Strip	TRW	Phenolic
108173-00001	Terminal Block CR151	GE	Phenolic
803161-00001	Washer, Isolator	Beta	Phenolic
303649-00002	Transformer	Beta	Wire-Polythermalese Tape - Glass Cloth Core-orthonol, Phenolic cover
120523-00002	Fuse Holder	Buss, Littlefuse	Bakelite
104166-00001	Varister	GE	
108404-00009	Connector	AMP	Nylon
108403-0009	Connector	AMP	Nylon
108234-00001	Connector(Card Edge)	SAE	Diallyl Phthylate
108151-00001	Socket (relay) 27E006	P&B	Phenolic
120296-00001	Relay KHS 17D12	P&B	Wire-Cellulose acetate header-diallyl phthylate coil wrapped with teflon, lead wire-PVC Feed thru-glass

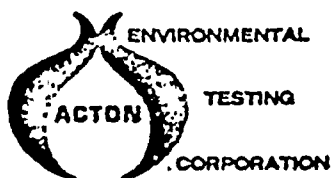
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BETA PART NO.	ITEM	MFGR.	MATERIAL
120431-00001	Relay AZ530	A/Z	Polycarbonate cover Milar base
100134-00001	Led 550-0406	Dialco	
100001-02243	Transistor 2N2243A	TI, NS Ray	
100129-00001	Regulator (transistor) LAS-1512	Lambda	
100086-00001	Transistor IR423	IR	
116116-00001	Transistor socket CJ2TS-1	Cinch Jones	Phenolic
100001-05449.	Transistor 2N5449	TI	
100001-06038	Transistor 2N6038	NS, Mot	
100000-04003*	Diode IN4003	Mot, IR, FCH, UNT	
100000-00914	Diode IN914	TI	
100131-00001	Diode MR851	Mot	
100007-00005	Diode IN5000	Mot	
100000-04762	Zener IN4762	Mot, ITT, Fch, IR, TI	
100000-04736	Zener IN4736	Mot, ITT, Fch, IR, TI	
100000-04749	Zener IN4749	Mot, ITT, Fch, IR, TI	
100000-04743	Zener IN4743	Mot, ITT, Fch, IR, TI	
100132-00423	Integrated Ckt	Mot, RCA	
100132-00411	Integrated Ckt	Mot, RCA	
100132-04027	Integrated Ckt	Mot, RCA	
100132-04049	Integrated Ckt	Mot, RCA	
100132-04093	Integrated Ckt	Mot, RCA	

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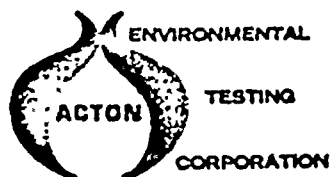


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BETA PART NO.	ITEM	MFGR.	MATERIAL
102020-00013	Capacitor 1MF 35V	Kemit	Tantalum
102025-00002	Capacitor .01MF 50V	CRL	Disc Ceramic
102140-00001	Capacitor .02MF 50V	CRL	Disc Ceramic
102027-00047	Capacitor .002MF 1KV	Spg.	Disc Ceramic
102080-00001	Capacitor 10MF 20V	Kemit, Mal.	Tantalum
102144-00001	Capacitor 2.2 MF 20V	Kemit, Spg., Mal.	Tantalum
102025-00007	Capacitor .1MF 50V	Cr1.	Dis. Ceramic
102078-00001	Capacitor 1MF 400V	CDE	Mylar
102020-00038	Capacitor 22MF 50V	Kemit	Tantalum
104152-00002	Resistor 15K 5W	Dale	Wiremound
104205-00001	Resistor 27 ohm 5W	Clar., Dale	Wiremound
104041-	Resistor 1W	AB, IRC, Airco, Stackpole	Carbon
104140-	Resistor 1/2W	AB, IRC, Airco, Stackpole	Carbon
104148-	Resistor 1/4W	AB, IRC, Airco, Stackpole	Carbon
308337	PCB	TRW/Optron	1/16" FR4 Epoxy Glass Plastic
308349	PCB		(Alt) G10 Epoxy Glass Plastic
308191	PCB		
100080-00001	Bridge Rectifier MDA801	Mot	

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BETA PART NO.	ITEM	MFGR.	MATERIAL
120019-00020*-	Fuse 5A(312005)	Littlefuse	Metal & Glass
108257-00001	Connector 8016	Elco	Glass filled diallyl Phthylate poly- carbonate thermo- plastic

*Common with PSI job

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ENGINEERING DOCUMENTATION REPORT - ENVIRONMENTAL

1. Purchase Order Number 10407 13-JM-111.
2. Arizona Public Service Company - Palo Verde Nuclear Generating Station Units 1, 2 and 3.
3. Safety related rack mounted devices supplied by Foxboro:

<u>Device</u>	<u>Qualification Report</u>	<u>Rev.</u>
2AC-M3	QOAAA05	A
2AI-I2V	QOAB35	A
2AI-I3V	QOAB13	B
2AI-T2V	QOAB28	A
2AO-L2C-R	QOAB60	A
2AO-VAI ECEP 9206	QOAB44	A
2AO-V3I	QOAB11	B
2AP+ALM-AR	QOAB33	A
2AP+ALM-AS	QOAB19	A
2AP+SQE	QOAB48	B
2ARPS-A6	QOAB25	A
2ANU-D	QOAB58	A
2AX+DIO	QOAAA05	A
2AX+DP10	QOAB14	B
2AX+DS1	QOAB18	B
2AX+VE	QOAAA05	A
2AX+AM	QOAB27	A

DISPLAYS, MOD 270
 RECORDERS, MOD 226
 CABLE, MOD 2AK-FF---
 RACK, MOD 2ES-BXXX
 WELD BASE

ATTACHMENT D

ARIZONA - PVNGS
IEEE-323-1974

EXPLANATION OF IDENTIFICATION OF ITEMS LISTED
ON SUBSEQUENT SHEETS

1. ALL ENGINE ASSEMBLIES AND SUBASSEMBLIES, INCLUDING CONTROL PANEL, WERE REVIEWED TO IDENTIFY THOSE ITEMS WHICH HAVE ANY NON-METALLIC MATERIALS. ALL SUCH ITEMS WERE LISTED ON FOLLOWING SHEETS.
2. FOR EACH ITEM IDENTIFIED, CES LISTED REASONS THAT EACH SHOULD, OR SHOULD NOT, BE EVALUATED IN A QUALIFICATION PROGRAM IN ACCORDANCE WITH THE CODE AT THE BOTTOM OF EACH SHEET.
3. AT PRESENT THIS LISTING HAS NOT BEEN AUDITED BY CES OR BECHTEL AND THEREFORE IS PRELIMINARY. HOWEVER IT DOES PROVIDE A GENERAL VIEW OF ITEMS REQUIRING QUALIFICATION.

TW Team
4-24-80

ATTACHMENT E

NOTE: MANUFACTURERS OF INDIVIDUAL COMPONENTS NOT PRESENTLY AVAILABLE.

ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-1-5	6	LS-1-3J		3,5	BASE ASSY
		9	2-04S-371-006	7		GASKET
		16	9903-MR#C-1393	1		SWITCH
		19	W16C-11#40	1		GASKET
		20	KSV-1-4E	1		↓
		24	GMV-53-G	1		SIGHT GLASS
		27	CSA-337-3#A	1		GASKET
		31	GMV-53-E	1		↓
		39	2-99S-042-001	1		SEALING CUFF
		47	1-02S-002-108	1		GASKET
	KSV-2-6			NONE		CRANKSHAFT ASSY
	KSV-4-3					CONN ROD ASSY
		D	2-08F-034-132	1		NUT
	KSV-5-2			NONE		PISTON ASSY
	KSV-6-2	26	KSV-6-K	1		CENTERFRAME ASSY
		37	GMW-2-X		3,5	GASKET
		38	CSA-337-7#7		3,5	↓
		43	KSV-6-2E	1		SEAL
		44	KSV-6-2F		3,5	GASKET
		45	KSV-6-2G	1		↓
		47	W16B-4#8		3,5	
		52	SF-105#4		3,5	↓

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. Seismic.

By: HHH/TWK For CES, Mount Vernon, Ohio

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-7-2			NONE		MAIN BRG ASSY
	KSV-9-5	5	2-025-002-008	1,2		CYL LINER ASSY
		7	W50A-2#126	1		GASKET
		9	W16A-2#311	1		SEAL
		11	W16A-2#312	1		GASKET
		A	2-99F-003-153	1		↓
	KSV-9-6	12	CSA-337-7#9		3,5	CYL BLOCK ASSY
		29	KSV-9-K		3,5	SEAL
		31	W16B-1#2		3,5	GASKET
		33	G18-9-9E		3,5	↓
		35	W16B-1#1		3,5	↓
		37	CSA-337-7#7		3,5	SEAL
		40	W16B-3#1		3,5	GASKET
		49	KSV-9-4E	1		↓
	KSV-10-2	4	2-01H-040-001	1		L.O. HDR CONN ASSY
		8	2-01H-041-001	1		HOSE
		11	2-01H-039-001	1		↓
		12	2-01H-039-002	1		↓
		14	2-01H-039-003	1		↓

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CYL HEAD ASSY
SEAL
GASKET
↓
SEAL

MAIN VLV ASSY
KEEPER

FUEL NOZZLE ASSY
SEAL
HOSE

AIR VLV ASSY
HOSE

CAM SHAFT ASSY
GASKET

SPEED GOV ASSY
GOVERNOR
GASKET
↓
↓
RESISTOR CO.
M.O.P
RESISTOR
CONTROLLER

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-17-7			NONE		OVS GOV ASSY
	KSV-18-4	1	2-5DF-020-001	1,2,7		FUEL INJ PUMP ASSY
		8	FW-19-J		3,5	PUMP GASKET
		16	W16B-32 #21	1		↓
	KSV-19-1	4	W16A-4 #16	1		AIR DIS ASSY
		20	KSV-19-F	1		GASKET ↓
	KSV-23-14	9	GD9-3687-6 #2	1,2,7		AIR START H2O FILL
		19	2-06C-136-101	1,7		CHECK VALV FILTER
	KSV-23-17	2	1-02S-003-405	1		5 AIR FILL ASSY
		13	1-02S-003-406	1		GASKET ↓
		14	W60A-8 #1	1,2,7		CHECK VALV
	Z23-1-1 #15	19		1,2		CONTROL VALV
		9	Z23-1-15	1,2		VALVE SEAL
	Z23 SUBASSY	12	GMR-10-4F	1		GASKET
		13	CSA-337-4 #87	1		SEAL
		28	2-01V-449-010	1,7		VALVE
		29	2-01V-449-004	1,7		VALVE
	Z36-1-15 #2	29		1,2,7		5 AIR FILL
		2	2-06C-161-103	1,7		FILTER
	Z36 SUBASSY	8	2-05V-399-001	1,7		SOLENOID VALV
		16	GD9-4540-9	1,2,7		SHUTTLE VALV

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-24-11					EXH MFLD ASSY
	KSV-24-11A	1		1		EXH MFLD
	KSV-24-11F SUBASSY	5	2-99F-022-106	1		INSULATION
		AK	2-99F-022-103	1		↓
		4	2-02S-024-013	1		GASLET
		5	2-02S-024-014	1		↓
		8	W16C-1 #1	1		↓
	KSV-25-3			NONE		ROCKET ASSY
	KSV-26-4			NONE		MANNHETER ASSY
	KSV-26-10			NONE		SHUTDOWN TID. ASSY
	KSV-26-11					RATIO REGR. ASSY
		2	2-04C-069-002	1,7		RATIO RELAY
	KSV-26-13					INSTR TER-FUL ASSY
	Z36-1-22 #1	1		1,7		PANEL
	Z36 SUBASSY	4	2-03V-031-001	1,7		VALVE
	Z36-1-21 #1	2		1,7		PANEL
		4	2-03V-031-001	1,7		VALVE
	Z36 SUBASSY	11	2-03V-031-002	1,7		↓
	KSV-27-4					J.W. PUMP ASSY
		7	2-09P-114-008	1,7		PUMP
		21	W16A-2 #225	1		GASLET
		23	W16B-10 #4	1		↓
		26	W16A-2 #224	1		↓
		28	W16B-10 #5		3.5	↓

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-28-5	1	2-11P-062-008	1,2,7		L.O. PUMP ASSY
		3	GMVW-28-D	1		PUMP
		6	1-025-002-113	1		GASKET ↓
		9	2-05V-422-001	1,7		RELIEF VLV
		15	2-02F-073-002	1		CPLG
		26	1-025-002-112	1		SCREW
	KSV-29-2			NONE		INDIC. COIL ASSY
	KSV-31-2	2	2-11P-118-003	1,2,7		FUEL TRANS. PUMP ASSY
		5	SF-97-1#3		3	PUMP
		6	1/2" A-12-1#13	1		SEAL
		15	2-01V-418-005	1,2		GASKET
		21	2-01V-410-008	1,7		CHECK VLV
	KSV-32-11			NONE		RELIEF VLV
	KSV-32-15			NONE		CONT. HANDLE ASSY
	KSV-32-17					CONT. LINEAGE ASSY
	Z32-4-3#1	35		1,2		AIR 312
	Z32 SUBASSY	3	CSA-337-4#6	1,2		SEAL
		7	CSA-337-5#68	1,2		↓
	Z 26-2-14#1	56			3	CONT FUEL

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-35-3					CHAIN DRIVE ASSY
		19	LSV-35-V		3,5	GASKET
		21	KSV-35-3E	1		↓
		24	KSV-35-H	1		Y
	KSV-36-14					CONT DIAGRAM
		1	2-OIV-391-006	1,2,7		CHECK VLV
		3	SF-297-4 #11		3	HOSE
		7	2-IDC-022-561		3	TEMP VLV
		8	2-OIV-469-001	1,2,7		CHECK VLV
		9	GD9-4540-9		3	SHUTTLE VLV
		19	2-IDC-016-001		3	VLV
	KSV-39-5					END HSG ASSY
		3	KSV-39-4C	1		GASKET
		5	2-99S-009-001		3,5	SEAL
		A	KSV-39-4A		3,5	GASKET
	KSV-39-6					END HSG ASSY
		2	KSV-39-3B	1		GASKET
		4	W16B-13 #11		3,5	↓
		8	W16B-10 #4		3,5	
		19	W16A-2 #225		3,5	↓
	KSV-45-17			NONE		ROCK SPRING - L.O LINES ASSY
	KSV-45-19					L.O PPS ASSY
		18	GMT-11-D	1		GASKET

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-45-21					L.O LINES ASSY
		9	1-02S-001-005	1		GASKET
	245-3-1#8	12		1		RELIEF VLV
	245 SUBASSY	8	1-07F-014-024	1		ELASTIC STD NUT
		13	1-02S-002-108	1		GASKET
		14	1-02S-002-112	1		↓
		22	GN-14-9NN#1	1		
	KSV-45-25					TURED L.O ASSY
		1	2-06C-478-001	1,7		FILTER
		2	2-01V-433-001	1,2,7		PRESS REG.
		3	2-02P-016-002		3,5	CPLS
		21	2-01V-418-003	1,2,7		CHECK VLV
		22	GS-24-E		3,5	GASKET
		A	V12-2-1/2-75		3,5	↓
		B	2-06C-478-001	1		FILTER ELEMENT
	KSV-46-12			NONE		L.O. SCHEMATIC
	KSV-47-22			NONE		J.W. SCHEMATIC
	KSV-47-23			NONE		C.V. SCHEMATIC
	KSV-48-16			NONE		S.A. SCHEMATIC
	KSV-48-17					S.A. TANK ASSY
		2	2-00C-002-006		3	COMPR
		9	3-01V-004-001	1,7		RELIEF VLV
		11	2-01V-440-005	1,7		3/4" VLV

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
		12	3-05V-003-001	1, 7		BUTTERFLY VLV
		13	1-02S-003-007	1		GASKET
		15	2-01V-440-004	1, 7		GATE VLV
	Z26-1-13#1	19		1, 7		PANEL
		2	2-04S-405-001	1, 7		PRESS SW
	Z26 SUBASSY	3	2-01S-709-074	1, 7		PRESS GA
		7	2-03V-031-001	1, 7		VALVE
		12	2-04S-397-001	1, 7		PRESS SW
		25	2-00S-002-005		VNDR OJAL	MOD
		B	2-09C-002-001	1		GASKET
	KSV-50-9			NONE		F.O. LINE SHIELDS AS
	KSV-50-10					F.O. LINES ASSY
	Z26-1-17#1	1		1, 7		GAUGE PNL
		1	2-01S-709-068	1, 7		PRESS GA
		2	2-01S-709-067	1, 7		↓
		3	2-01S-709-069	1, 7		REG VALV
	Z26 SUBASSY	5	2-03V-031-002	1, 7		↓
		20	2-04S-187-107	1, 7		DIEF PRESS SW
		21	2-04S-187-188	1, 7		↓
		7	GN-14-9NN	1		HOSE
		9	2-01H-042-005	1		GASKET
		25	2-01V-418-003	1, 2		CHECK VLV
		32	2-06C-474-001	1, 7		FILTER

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
		33	2-06C-468-001	1, 7		STRAINER
		38	2-01V-454-001	1		VLV
		62	2-04H-042-007	1		HOSE
		76	2-04H-042-004	1		↓
	KSV-51-18			NONE		F.O. SCHEMATIC
	KSV-51-19				3	F.O. TRAIL ASSY
		5	2-045-182-003			SWITCH
		6	2-045-386-004	1, 7		↓
		7	1-025-003-004	1		SEISMIC
		14	2-11T-078-001	1, 7		TRANSMITTER
		18	2-01V-422-004	1		VLV
	KSV-55-4					TURNING GEAR ASSY
		18	2-05V-380-001	1		VLV
	KSV-58-7					COMPOSITE PPS ASSY
		2	2-00H-005-001	1		HEAT EXCH
		3	2-00H-005-002	1		↓
	KSV-58-76	4		1		STANDPIPE
		AP	W16A-2 1/2 350	1		GASKET
		5	2-06C-476-001	1		STRAINER
		6	2-06C-466-004	1		FILTER
		7	2-04H-073-002	1		HEATER
		8	2-04H-073-001	1		↓
		9	2-05V-419-001	1		AMOT VLV

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
		10	2-00P-008-001	1, 2		PUMP
		11	2-00P-008-002	1, 2		↓
		12	2-01V-441-006	1		BALL VLV
		13	3-01V-002-001	1		↓
		14	3-01V-002-003	1		↓
		15	3-01V-001-001	1, 2		CHECK VLV
		16	3-01V-001-004	1, 2		↓
		17	2-01V-420-001	1		EXHAUST VLV
		22	1-02S-001-412	1		SAFETY
		25	1-02S-001-414	1		↓
		28	1-02S-001-416	1		↓
		29	1-02S-001-412	1		↓
		30	1-02S-001-014	1		↓
		33	1-02S-001-005	1		↓
		34	1-02S-001-405	1		↓
		37	1-02S-001-407	1		↓
		38	1-02S-001-007	1		↓
		43	3-01V-003-001	1		RELIEF VLV
		89	2-01S-067-002		3	THERMISTOR

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	226-2-16#1	95		1,7		GAUGE PNL
		2	2-01J-709-068	1,7		PRESS GA
	226 SUBASSY	3	2-01J-707-064	1,7		↓
		4	2-03V-031-002	1,7		VLV
		107	2-04S-386-003	1,7		LEVEL SW
		119	2-01J-561-117	1		LEVEL GA
		120	1-02S-001-006	1		GASKET
	226-2-16#2	127		1,7		GAUGE PNL
		2	2-01J-709-068	1,7		PRESS GA
		3	2-01J-709-064	1,7		↓
	226 SUBASSY	4	2-03V-031-002	1,7		VLV
		8	2-01J-709-070	1,7		PRESS GA
		128	1-02S-001-411	1		GASKET
		131	1-02S-001-409	1		↓
		140	1-02S-002-113	1		↓
	226-2-15#1	145				INSTR TEST PNL
	226 SUBASSY	11	2-03V-031-002	1		VLV
		146	2-04S-187-108	1,7		DIFF PR SW
		150	2-01V-422-008	1		VLV
	KSV-59-12					WATER HDR ASSY
		6	1-02S-002-013	1		GASKET
		10	1-02S-002-014	1		↓
		19	6N-37-2E	1		↓

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	KSV-59-13	3	FSS-37-Q#1	1		WATER HOD Assy GASKET
	KSV-59-14	2	2-02P-074-001	1		TURBO WTR FPS Assy
		6	W16B-3#42	1		CP-3
		8	FV-35-FF	1		GASKET
		12	2-021-072-001	1		↓ 2-1-3
	KSV-59-17	5	1-02S-001-407	1		WATER FPS Assy
		8	1-02S-001-412	1		GASKET ↓
	KSV-69-6			NONE		TURBO SUPER Assy
	KSV-72-12				3	CRKCASE HI PRESS SHUTDOWN Assy
	KSV-72-14				3	PRG TEMP DET Assy
	KSV-72-15				3	VIB SW Assy
	KSV-72-16				3	BUTTERFLY VLV OVS S/F Assy
	KSV-72-17				3	OVS S/D Assy
	KSV-73-5				3	BREATHING Assy
	KSV-73-9				3	BREATHING FPS Assy
	KSV-75-8				3	PLA-FORM Assy
	KSV-76-5	1	2-052-027-001	1		MFG FLOW Assy MFG FLOW

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-77-4				3	S.A. PILOT LINES ASSY
	KSV-78-9				3	PLYR HEADER ASSY
	KSV-81-2				3	EXPL DOOR ASSY
	KSV-87-14					CONDUIT & WIR ASSY
	Z26-1-19#1	1			3	J. BOX
		8	2-05V-399-002		3	SOL. VLV.
		18	2-05C-069-001		3	TEMP DET.
	Z26-1-21#2	19		1,7		J. BOX
	Z26 SUB-ASSY	7	2-045-410-002	1,7		PRESS SW
		8	2-10E-075-021	1		TERM BLOCK
	Z26-1-12#2	24		1		J. BOX
	Z26 SUB-ASSY	8	2-10E-075-019	1		TERM. BLOCK
	Z26-1-18#2	26		1		J. BOX
	Z26 SUB-ASSY	5	2-10E-075-020	1		TERM BLOCK
		6	2-10E-075-021	1		↓
	KSV-87-78#1	38		1		HARNES
	KSV-87 SUB-ASSY	D	2-99W-073-001	1		WIRE
		E	2-99W-085-001	1		↓
	Z26-1-21#1	44		1,7		J BOX
		7	2-045-410-002	1,7		PRESS SW
	Z26 SUB-ASSY	8	2-10E-075-021	1		TERM BLOCK

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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
		48	2-99W-073-001	1		WIRE
		49	2-99W-085-001	1		↓
		50	2-99W-086-001		3	↓
		53	2-10F-002-002		3	TIE
		73	2-82E-037-002		3	VARISTOR
	KSV-87-15					CONDENSED WIRE ASSY
	Z26-1-16 #2	1			3	J. BOX
	Z26-1-14 #2	2			3	
	Z26-1-22 #1	3			3	
		50	2-04S-408-001	1,7		TEMP SW
		54	2-04S-411-001		3	
		58	2-05C-069-001		3	TEMP DE
		60	2-99W-073-001	1		WIRE
		74	2-99W-086-001		3	
	Z26-1-12 #2	99		1		J. BOX
	Z26 903- ASSY	8	2-10E-075-019	1		TERM BLOCK
	KSV-88-2			NONE		VIC DRIVER ASSY
	KSV-91-17					AIR MVELD ASSY
		4	W16A-2 #156	1		GASKET
		8	KSV-91-C	1		↓
		12	CSA-337-1 #CG	1		SEAL
		17	W16A-12 #127	1		GASKET

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. Seismic.

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	KSV-91-18					INTCLR ASSY
		1	2-02H-846-010	1		INTCLR
		13	KSV-91-18L	1		GASKET
		14	KSV-91-18M	1		↓
		21	W16A-12 #147	1		↓
		22	1-02S-001-409	1		↓
		35	1-02T-020-001		3	V-LV
		39	2-01H-045-002	1		H055
		50	2-01H-045-003	1		↓
		53	2-01V-423-001	1		V-LV
		60	2-01V-421-001	1		↓
		69	1-02S-003-409	1		GASKET
	KSV-93-13					FLYWHL & SHFT KEY
		9	W10A-1 #131	1		WASHER
		11	W31A-4 #37	1		INSULATOR
		12	2-05B-013-008	1		BRG
		22	LSV-93-69C	1		SPACER
		24	2-00G-004-003	VNDR QUAL		GENERATOR
		37	KSV-93-10K	1		CONN BLOCK
	KSV-96-9					INT & EXT: SCW
		6	1-02S-002-021	1		GASKET
		7	2-01J-067-002		3	TEMP ING
		11	2-02S-024-002	1		GASKET

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. Seismic.

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS

[illegible]

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. Seismic.

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
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Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	A	2-02G-048-005	1		Panel
	"	B	2-02G-048-003	1		Potentiometer
	"	C	2-02G-048-002	1		Resistor Box
	"	D	2-02G-048-004	1		Power Supply
	"	H	G5-262-1009A		4-6	Cabinet
	"	R	2-07P-130-001		3	Plate - Legend
	"	S	2-07P-468-001		3	Plate - Legend
	"	T	2-07P-462-001		3	Plate
	"	U	2-07P-500-852		3	Plate
	"	V	W44A-1#2		3	Monogram
	"	W	2-20E-118-014		3	Terminal
	"	X	G5-262-621G#1		3	Block Terminal
	"	Y	G5-262-1009L		3	Insulator
	"	AA	2-10E-075-510	1		Terminal Block
	"	AB	2-10E-075-014		3	Terminal Cover
	"	AC	2-10E-075-508	1		Terminal Block
	"	AD	2-10E-075-533	1		Jumper
	"	AE	2-10F-090-022		3	Wire - Duct
	"	AF	2-10F-090-027		3	Wire - Duct
	"	AG	2-10F-090-028		3	Wire - Duct
	"	AH	2-10F-090-029		3	Wire - Duct
	"	AJ	2-10F-090-105		3	Cover
	"	AK	2-10F-090-106		3	Cover
	"	AL	2-10F-090-107		3	Cover
	"	AM	2-10F-088-103		3	Cover
	"	AN	2-10F-088-105		3	Cover
	"	AP	2-10F-088-202		3	Stud
	"	AQ	2-10F-088-203		3	Stud
	"	AR	2-10F-090-016		3	Wire - Duct
	"	AS	2-02C-099-045		3	Coupling - Bulkhead
	"	AT	2-99W-090-001		3	Cable

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. SENSITIVE

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	AU	2-99W-073-001	1		Wire
	"	AV	2-99W-085-002	1		Wire
	"	AW	2-10E-001-206	1		Connector - Wire
	"	AX	2-10E-001-207	1		Connector - Wire
	"	AY	2-10E-001-208	1		Connector - Wire
	"	AZ	2-10E-001-222	1		Connector - Wire
	"	BC	G5-262-1009M		3	Bracket - Lifting
	"	BH	G5-262-1009B		4,6	Cabinet - Control
	"	BJ	G5-262-1009D		4,6	Plate - Mtg.
	"	BK	G5-262-1009E		4,6	Plate - Mtg.
	"	BL	G5-262-1009F		4,6	Plate - Mtg.
	"	BQ	2-07P-468-001		3	Plate - Legend
	"	BR	2-07P-130-001		3	Plate - Legend
	"	BS	2-07P-500-583		3	Plate - Legend
	"	BT	2-07P-462-001		3	Plate
	"	BU	2-07P-439-001		3	Plate
	"	BW	2-20E-118-014		3	Terminal (Ground Lug)
	"	BX	2-10E-102-015	1		Terminal
	"	BY	2-10E-102-016	1		Terminal
	"	BZ	2-10E-102-017	1		Terminal
	"	CA	2-10E-075-510	1		Terminal Block
	"	CC	2-10E-075-014		3	Terminal Cover
	"	CE	2-10F-090-022		3	Wire - Duct
	"	CF	2-10F-090-027		3	Wire - Duct
	"	CG	2-10F-090-028		3	Wire - Duct
	"	CH	2-10F-090-029		3	Wire - Duct
	"	CJ	2-10F-090-105		3	Cover
	"	CK	2-10F-090-106		3	Cover
	"	CL	2-10F-090-107		3	Cover
	"	CS	2-99W-089-047	1		Wire
	"	CT	2-99W-089-040	1		Wire

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.

7. SETS/MIC

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	CU	2-99W-073-001	1		Wire
	"	CV	2-99W-073-009	1		Wire
	"	CW	2-10E-001-206	1		Connector
	"	CX	2-10E-001-207	1		Connector
	"	CY	2-10E-001-208	1		Connector
	"	CZ	2-10E-001-213	1		Connector
	"	DA	2-10E-001-214	1		Connector
	"	DB	2-10E-001-215	1		Connector
	"	DC	2-10E-001-902	1		Connector
	"	DD	2-10E-001-903	1		Connector
	"	DE	2-10E-001-901	1		Connector
	"	DF	2-10E-001-904	1		Connector
	"	DH	2-10E-020-901		4-6	Washer
	"	DJ	2-10E-001-218	1		Connector
	"	DK	2-10E-020-902		4-6	Washer
	"	DL	2-10E-001-905	1		Connector
	"	DM	2-10E-001-223	1		Connector
	"	DN	2-10E-001-222	1		Connector
X	"	AAA	2-04E-178-011	1,2		Relay
	"	AAB	ZG5-2-04E-178-009A	1,2		Relay AC-STAT
	"	AAC	2-04E-178-103	1		Socket - Relay
X	"	AAD	ZG5-2-04E-176-600A	1,2		Relay - Time Delay
	"	AAB	ZG5-2-82E-037-002A	1		GE 825-7000 Varistor - Thyrite
	"	AAJ	2-01E-028-030	1,2		NEIDHANN Circuit Breaker
	"	AAL	ZG5-280-295	1		Power Supply
	"	AAN	ZG5-2-10E-002-204A	1		Fuse
	"	AAP	ZG5-2-10E-060-006A	1		Fuse - Clip
	"	AAQ	2-10E-060-001		3	Fuse - Clip
	"	AAR	ZG5-2-01E-215-103A	1,2		AIRPAX ELECTRONICS, 300 Speed Monitor SERIES
	"	AAU	ZG5-280-296#1	1		Board - Printed Ct.
	"	AAV	ZG5-280-296#200	1		Board - Printed Ct.

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. ~~5-7514, C~~

ARIZONA - PYNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	AAW	G5-262-1009C#1		4-6	Bracket
	"	AAX	2-03H-069-206		3	Spacer
	"	AAY	2-01J-604-201		3	Bezel
	"	AAZ	2-01J-604-036		3	TRIP-EXT Speed Indicator
	"	ABC	2G5-2-01A-051-012A	1		Pilot - Light
	"	ABD	2-01A-051-019		3	Lens - White
	"	ABF	2-01A-051-014		3	Lens - Red
	"	ABH	2G5-2-84E-048-475A	1		Resistor
X	"	ABK	2-04S-413-001	1-2		Switch - Selector
X	"	ABL	2G5-2-04S-396-302A	1-2		Switch - Selector
	"	ABN	G5-262-1009N#1		4-6	Bracket
	"	ABP	2G5-019-0376A	1		Resistor
	"	ABQ	2G5-019-0571A	1		Resistor
	"	AVA	2-04E-178-008		3	Relay
	"	AVC	2-04E-178-101		3	Relay - Socket
	"	AVD	2-04E-176-097		3	Relay Time-Delay
	"	ABE	2-04E-176-095		3	Relay Time-Delay
	"	AVF	2-04E-176-500		3	Contact - Aux.
	"	AVG	2-82E-037-002		3	Varistor - Thyrite
	"	AVH	2-82E-003-006		3	Diode
	"	AVJ	2-10E-026-003		3	Terminal Block
	"	AVK	2G5-2-82E-003-005A	1		Diode
	"	AVL	2-01E-028-027		3	WIREMAN Circuit Breaker
	"	AVM	2G5-2-10E-026-004A	1		Terminal Block
	"	AVN	2G5-280-295	1		Power - Supply
	"	AVP	2-10E-002-204		3	Fuse
	"	AVQ	2-10E-060-001		3	Fuse - Clip
	"	AVS	2-01J-788-001		3	Counter
	"	AVT	G5-262-1009G#1		3-4-6	Bracket Mtg.
	"	AVU	2-03H-069-206		3	Spacer
	"	AVV	2G5-280-296#2		3	Board - Printed Ct.

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. *SEMI-C*

ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	AVW	ZG5-280-296#201		3	Board - Printed Ct.
	"	AVX	ZG5-280-296#202		3	Board - Printed Ct.
	"	AVY	ZG5-280-296#203		3	Board - Printed Ct.
	"	AVZ	G5-262-1009C#2		3-4-6	Bracket - Mtg.
	"	AWA	G5-262-1009J#2		3-4-6	Bracket
	"	AWB	2-01A-051-012		3	Light - Pilot
	"	AWC	2-01A-051-019		3	Lens - White
	"	AWD	2-01A-051-016		3	Lens - Amber
	"	AWE	2-01A-051-015		3	Lens - Green
	"	AWG	2-84E-048-475		3	Resistor
	"	AWH	2-84E-048-085		3	Resistor
	"	AWJ	2-83E-008-022		3	Capacitor
	"	AWK	2-10F-039-001		3	Clip - Spring
	"	AWN	ZG5-2-04S-395-001A	1-2		Pushbutton
	"	AWP	ZG5-2-04S-395-003A	1-2		Pushbutton
	"	AWQ	ZG5-2-04S-395-502A	1-2		Block - Contact
	"	DAA	2-82E-003-011	1		Diode
	"	DAB	G5-262-949E#1		4-6	Bracket
	"	DAC	2-03H-041-001		3	Knob (Locking)
	"	DAD	2-84E-011-990	1		Resistor
	"	DAE	2-84E-024-113	1		Resistor
	"	DAF	2-10E-026-006	1		Board - Terminal
	"	DAG	2-04S-396-301		3	Switch - Selector
	"	DBC	2-01E-043-035	1-2		Circuit Breaker
	"	DBD	2-01E-028-030	1-2		Circuit Breaker
	"	DBE	2-01E-028-026		3	Circuit Breaker
	"	DBF	2-01E-028-017		3	Circuit Breaker
	"	DBG	G5-262-1009P		3-4-6	Bracket - L
	"	DBH	2-10E-060-202	1		Fuse - Clip
	"	DBJ	2-10E-002-301	1		Fuse
	"	DBK	2-10E-002-307	1		Fuse

1. Environmental or radiation aging.
2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
6. Required life is far below manufacturer's or other known expected life.
7. *See note*

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
X	BMG5-262-1009	DBL	2-04E-178-011	1,2		Relay
	"	DBM	2-04E-178-103	1		Socket - Relay
X	"	DBN	2G5-2-04E-185-001A	1,2		Relay
	"	DBP	2G5-2-01E-014-001A	1		Socket - Relay
	"	DBQ	2-01A-051-012		3	Light - Pilot
	"	DBR	2-01A-051-019		3	Lens - White
	"	DBS	2-01A-051-014		3	Lens - Red
	"	DBT	2-01A-051-015		3	Lens - Green
	"	DBU	2-84E-048-475		3	Resistor
	"	DBV	2-84E-048-474		3	Resistor
	"	DBX	2-06E-045-001		3	Lamp Holder
	"	DBY	2-03C-027-003		3	Box
	"	DBZ	2-01A-015-008		3	Bulb
	"	DCA	2-04S-177-001		3	Switch - Toggle
	"	DCB	2-03C-095-001		3	Box
	"	DCC	2-03C-095-013		3	Cover
	"	DCD	2-03C-028-003		3	Receptacle
	"	DCE	2-04E-176-601	1,2		Relay - Time Delay
	"	DCF	2-04S-396-307		3	Switch - Selector
	"	DCG	2-04S-395-001		3	Pushbutton
	"	DCH	2-04S-395-003		3	Pushbutton
	"	DCJ	2-04S-395-502		3	Contact - Block
	"	DCK	2-04S-396-302		3	Switch - Selector
	"	DCL	2-04E-186-001	1,2		Relay - Lockout <i>MIL-STD-883C 204P SERIES 24 LCR</i>
	"	DCM	G5-262-1009N#1		4-6	Bracket
	"	DCN	2-04S-066-055		3	Switch - Selector
	"	DCP	2-04S-396-304		3	Switch - Selector
	"	DCQ	G5-262-1009N#2		4-6	Bracket
	"	DCR	2-10E-107-202	1		Block - Fuse
	"	DCS	2-10E-108-101	1		Fuse
	"	DCT	2-04S-396-104		3	Contact - Block

Environmental or radiation aging.

Wear.

Not essential.

Aging is insignificant compared to DBE effect.

DBE degradation is small, and normal maintenance will reveal aging degradation.

Required life is far below manufacturer's or other known expected life.

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For CES, Mount Vernon, Ohio

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
BMG5-262-1009	DCU	2G5-267-10B#1		3	Socket - Mtg. Brackets
"	DCV	2-10E-107-201	1		Block - Fuse
"	DCX	2-02C-094-106		3	Tee - Conduit
"	DCY	2-03C-002-004		3	Bushing
"	DDA	2-04E-164-602		3	Relay - Protective
"	DDB	2-04E-164-104		3	Relay - Protective
"	DDC	2-04E-164-501		3	Relay - Protective
"	DDD	2-04E-164-402		3	Relay - Protective
"	DDE	2-04E-164-004		3	Relay - Protective
"	DDF	2-04E-164-301		3	Relay - Protective
"	DDG	2-04E-164-102		3	Relay - Protective
"	DDH	2-04E-164-007		3	Relay - Protective
"	DDJ	2-04E-164-008		3	Relay - Protective
"	DDK	2-04E-164-201	1,2		WESTINGHOUSE Relay - Protective TYPE SA-1
"	DDP	2-10E-105-003		3	Block - Test
"	DDQ	2-10E-105-103		3	Plug - Test
"	DDY	G5-262-1020		3	Skid - Neutral Gndg.
"	DDZ	2-00C-009-004	1		High Voltage Cubicle
"	DEA	2-20E-116-301		3	Transducer
"	DEB	2-20E-116-003		3	Transducer
"	DEC	2-20E-116-102		3	Transducer
"	DED	2-20E-116-201		3	Transducer
"	DEE	2-20E-116-401		3	Transducer
"	DEK	2-01J-251-003	1		Shunt
"	DEL	2-01J-251-002	1		Shunt
"	DEM	2-01J-251-200		3	Leads
"	DEP	2-01J-718-203		3	Meter
"	DEQ	2-01J-718-303		3	Meter
"	DER	2-01J-718-301		3	Meter
"	DES	2-01J-718-005		3	Meter
"	DET	2-01J-718-101		3	Meter

Environmental or radiation aging.
Wear.
Not essential.
Aging is insignificant compared to DBE effect.
DBE degradation is small, and normal maintenance will reveal aging degradation.
Required life is far below manufacturer's or other known expected life.

ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	DEU	2-01J-718-201		3	Meter
	"	DEV	2-01J-718-401		3	Meter
	"	EAA	2-01J-058-017		3	Gauge - Pressure
	"	EAB	2-01J-084-006		3	Gauge - Pressure
	"	EAC	2-01J-058-006		3	Gauge - Pressure
	"	EAD	2-01J-058-007		3	Gauge - Pressure
	"	EAG	2-01V-162-008		3	Valve - Selector
	"	EAH	2-03V-009-005		3	Valve - Needle
	"	EAJ	2-01D-038-103		3	Pulsation Dampner
	"	EAK	SF-329-6-003		3	Tubing
	"	EAL	G5-236-1B#12		3	Fitting - Bulkhead
	"	EAM	2-02T-033-202		3	Connector
	"	EAN	1-03P-130-002		3	Tee - Pipe
	"	EAP	2-02T-037-202		3	Elbow
	"	EAQ	SF-199-34#1/4		3	Plug - Pipe
	"	EAR	2-02T-058-206		3	Connector
	"	EAU	2-01E-028-026		3	Circuit Breaker
	"	EAV	2-01E-028-017		3	Circuit Breaker
	"	EAX	2-06E-045-001		3	Lampholder
	"	EAY	2-03C-027-003		3	Box
	"	EAZ	2-01A-015-008		3	Bulb
	"	EBA	2-04S-177-001		3	Switch - Toggle
	"	EBB	2-03C-095-001		3	Box
	"	EBC	2-03C-095-013		3	Cover
	"	EBD	2-03C-028-003		3	Receptacle
	"	EBF	2-01J-702-003		3	Temp. Indicator
	"	EBG	2-01J-508-008		3	Temp. Indicator
	"	EBH	2-04S-306-007		3	Switch - Selector
	"	EBJ	2-04S-306-108		3	Switch - Selector
	"	EBK	2-01J-401-001		3	Meter - Hour
	"	EBM	2-01J-604-031		3	Level - Indicator

Environmental or radiation aging.

Wear.

Not essential.

Aging is insignificant compared to DBE effect.

DBE degradation is small, and normal maintenance will reveal aging degradation.

Required life is far below manufacturer's or other known expected life.

S-E-M-C

For CES, Mount Vernon, Ohio

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ARIZONA - PVNGS
EMERGENCY GENERATOR SETS
ITEMS REVIEWED FOR IEEE-323 COMPLIANCE

Sub	Assembly	Item	Part Number	Reasons To Treat	Reasons Not to Treat	Note
	BMG5-262-1009	EBN	2-01J-604-201		3	Bezel
	"	EBP	G5-262-1009J#1		4-6	Bracket
		EBQ	2-82E-003-006		3	Diode
	"	EBZ	2-01A-107-004		3	Horn
X	"	FAA	2-04S-396-302		3	Switch - Selector
	"	FAB	2-04S-396-303	1,2		Switch - Selector
	"	FAC	2-04S-396-306		3	Switch - Selector
	"	FAD	2-01A-051-012		3	Light - Pilot
	"	FAF	2-01A-051-014		3	Lens - Red
	"	FAG	2-01A-051-015		3	Lens - Green
X	"	FAJ	2-04S-396-305	1,2		Switch - Selector
	"	FAL	G5-262-1009Q#1		4-6	Bracket
X	"	FAM	ZG5-2-04S-396-302A	1,2		Switch - Selector
	"	GAA	2-01A-118-002		3	Annunciator
	"	GAD	2-04E-178-008		3	Relay
	"	GAE	2-04E-178-101		3	Socket - Relay
	"	GAF	2-82E-003-006		3	Diode
	"	GAG	2-10E-026-003		3	Board - Terminal
	"	GAK	2-04S-395-601		3	Kit - Adapter
	"	GAL	2-04S-395-001		3	Switch - Pushbutton
	"	GAM	ZG5-2-04S-395-002A	1,2		Switch - Latch
	"	GAN	G5-262-1009K#1		4-6	Bracket
	"	GAP	G5-262-1009K#2		4-6	Bracket
	"	GAQ	ZG5-2-04S-395-501A	1,2		Block - Contact
	"	GAR	2-04S-395-502		3	Block - Contact
	"	GAT	2-04S-395-504		3	Block - Contact
	"	GAU	2-01A-051-012		3	Light
	"	GAV	2-01A-051-016		3	Lens - Amber
	"	GAW	2-01A-051-015		3	Lens - Green
	"	GAX	2-84E-048-475		3	Resistor
	"	GAY	ZG5-2-04S-395-503A	1,2		Block - Contact

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2. Wear.
3. Not essential.
4. Aging is insignificant compared to DBE effect.
5. DBE degradation is small, and normal maintenance will reveal aging degradation.
5. Required life is far below manufacturer's or other known expected life.

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[illegible]

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