Appendix C. Table of Filtered Scenarios with Rationale

ID	Scenario Text	Rationale
3.1	Flight crew provides the set battery to use action too	Continuous
	late - Flight crew received feedback (or other input)	Control Action
	that indicated the battery is not connected but avail-	
	able while other power source are not, and the battery	
	is not overheated on time/in order	
3.2	Feedback received by Flight crew does not indicate the	Continuous
	battery is not connected but available while other power	Control Action
	source are not, and the battery is not overheated on time	
	- it is true that the battery is not connected but available	
	while other power source are not, and the battery is not	
2 2	overheated	Continuous
3.3	Flight crew provides the set battery to use action on time/in order - set battery to use is received by Battery	Continuous Control Action
	time/ in order - set battery to use is received by Battery too late	Collifor Action
3.4	The set battery to use action is not received by Battery	Continuous
9.4	when the battery is not connected but available while	Control Action
	other power source are not, and the battery is not over-	Control Region
	heated - Battery executes the action too late	
6.1	Flight crew provides the set battery to not use action	Continuous
	too late - Flight crew received feedback (or other input)	Control Action
	that indicated the battery is connected and it overheats	
	on time/in order	
6.2	Feedback received by Flight crew does not indicate the	Continuous
	battery is connected and it overheats on time - it is true	Control Action
	that the battery is connected and it overheats	
6.3	Flight crew provides the set battery to not use action	Continuous
	on time/in order - set battery to not use is received by	Control Action
	Circuit breaker too late	
6.4	The set battery to not use action is not received by Cir-	Continuous
	cuit breaker when the battery is connected and it over-	Control Action
	heats - Circuit breaker executes the action too late	

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- 17	Samuria Tank	
	Scenario Text	Rationale
9.1	Flight crew provides the set generator to use action too	Continuous
	late - Flight crew received feedback (or other input) that	Control Action
	indicated the generator is online and not connected on	
-0.2	time/in order	<u> </u>
9.2	Feedback received by Flight crew does not indicate the	Continuous
	generator is online and not connected on time - it is true	Control Action
0.0	that the generator is online and not connected	<u> </u>
9.3	Flight crew provides the set generator to use action on	Continuous
	time/in order - set generator to use is received by Gen-	Control Action
0.4	erator Control Unit (GCU) too late	<u> </u>
9.4	The set generator to use action is not received by Gen-	Continuous
	erator Control Unit (GCU) when the generator is online	Control Action
	and not connected - Generator Control Unit (GCU) executes the action too late	
12.1	Flight crew provides the set generator to not use action	Continuous
12.1	too late - Flight crew received feedback (or other input)	Control Action
	that indicated connected, in fault condition and cannot	Collitor Action
	be reset on time/in order	
12.2	Feedback received by Flight crew does not indicate con-	Continuous
12.2	nected, in fault condition and cannot be reset on time -	Control Action
	it is true that connected, in fault condition and cannot	
	be reset	
12.3	Flight crew provides the set generator to not use action	Continuous
	on time/in order - set generator to not use is received	Control Action
	by Generator Control Unit (GCU) too late	
12.4	The set generator to not use action is not received by	Continuous
	Generator Control Unit (GCU) when connected, in fault	Control Action
	condition and cannot be reset - Generator Control Unit	
	(GCU) executes the action too late	
13.1	Flight crew does not provide the reset generator action	Control-to-
	when connected and in fault condition - Flight crew	Command
	received feedback (or other input) that indicated con-	Abstraction
	nected and in fault condition	
13.2	Feedback received by Flight crew does not adequately	Control-to-
	indicate connected and in fault condition - it is true	Command
	that connected and in fault condition	Abstraction

Table C.3 continued from previous page

	Table C.3 continued from previous page	
ID	Scenario Text	Rationale
13.3	Flight crew does provide the reset generator action when	Control-to-
	connected and in fault condition - reset generator is not	Command
	received by Generator Control Unit (GCU) when con-	Abstraction
	nected and in fault condition	
13.4	The reset generator action is received by Generator Con-	Control-to-
	trol Unit (GCU) when connected and in fault condition	Command
	- Generator Control Unit (GCU) does not respond ade-	Abstraction
	quately	~
14.1	Flight crew provides the reset generator action too late	Continuous
	- Flight crew received feedback (or other input) that	Control Action
	indicated connected and in fault condition on time/in	
110	order	<u> </u>
14.2	Feedback received by Flight crew does not indicate con-	Continuous
	nected and in fault condition on time - it is true that	Control Action
	connected and in fault condition	~
14.3	Flight crew provides the reset generator action on	Continuous
	time/in order - reset generator is received by Genera-	Control Action
	tor Control Unit (GCU) too late	<u> </u>
14.4	The reset generator action is not received by Genera-	Continuous
	tor Control Unit (GCU) when connected and in fault	Control Action
	condition - Generator Control Unit (GCU) executes the	
20.1	action too late	<u> </u>
20.1	Flight crew provides the disengage engine start action	Continuous
	too early/late/out of order - Flight crew received feed-	Control Action
	back (or other input) that indicated before the engine	
	has started when it can be started and its power is	
20.2	needed on time/in order	Continuous
20.2	Feedback received by Flight crew does not indicate be-	
	fore the engine has started when it can be started and	Control Action
	its power is needed on time/in order - it is true that be-	
	fore the engine has started when it can be started and	
20.3	its power is needed Flight crew provides the disengage engine start action	Continuous
20.3		Continuous Control Action
	on time/in order - disengage engine start is received by Battery too early/late/out of order	Control Action
	Daniery 100 earry/rate/out of order	

Table C.3 continued from previous page

$\overline{\text{ID}}$	Scenario Text	Rationale
$\frac{10}{20.4}$	The disengage engine start action is not received by Bat-	Continuous
20.1	tery when before the engine has started when it can be	Control Action
	started and its power is needed - Battery executes the	
	action too early/late/out of order	
23.1	Flight crew provides the connect user system action too	Continuous
_0.1	late - Flight crew received feedback (or other input) that	Control Action
	indicated it can be connected, the system is needed and	0
	functional on time/in order	
23.2	Feedback received by Flight crew does not indicate it	Continuous
	can be connected, the system is needed and functional	Control Action
	on time - it is true that it can be connected, the system	
	is needed and functional	
23.3	Flight crew provides the connect user system action on	Continuous
	time/in order - connect user system is received by Cir-	Control Action
	cuit breaker too late	
23.4	The connect user system action is not received by Circuit	Continuous
	breaker when it can be connected, the system is needed	Control Action
	and functional - Circuit breaker executes the action too	
	late	
25.1	Flight crew does not provide the connect internal com-	Context-to-
	ponent action when it can be connected and is needed	State Abstrac-
	for powering a necessary user system - Flight crew re-	tion
	ceived feedback (or other input) that indicated it can be	
	connected and is needed for powering a necessary user	
	system	
25.2	Feedback received by Flight crew does not adequately	Context-to-
	indicate it can be connected and is needed for powering a	State Abstrac-
	necessary user system - it is true that it can be connected	tion
05.9	and is needed for powering a necessary user system	<u> </u>
25.3	Flight crew does provide the connect internal compo-	Context-to-
	nent action when it can be connected and is needed for	State Abstrac-
	powering a necessary user system - connect internal com-	tion
	ponent is not received by Circuit breaker when it can be	
	connected and is needed for powering a necessary user	
	system	

Table C.3 continued from previous page

$\overline{\mathrm{ID}}$	Scenario Text	Rationale
$\frac{15}{25.4}$	The connect internal component action is received by	Context-to-
	Circuit breaker when it can be connected and is needed	State Abstrac-
	for powering a necessary user system - Circuit breaker	tion
	does not respond adequately	
26.1	Flight crew provides the connect internal component ac-	Continuous
	tion too late - Flight crew received feedback (or other	Control Action
	input) that indicated it can be connected and is needed	
	for powering a necessary user system on time/in order	
26.2	Feedback received by Flight crew does not indicate it	Continuous
	can be connected and is needed for powering a necessary	Control Action
	user system on time - it is true that it can be connected	
	and is needed for powering a necessary user system	
26.3	Flight crew provides the connect internal component ac-	Continuous
	tion on time/in order - connect internal component is	Control Action
20.4	received by Circuit breaker too late	<u> </u>
26.4	The connect internal component action is not received	Continuous
	by Circuit breaker when it can be connected and is	Control Action
	needed for powering a necessary user system - Circuit breaker executes the action too late	
27.1	Flight crew provides the disconnect internal component	Control-to-
21.1	action when power is needed for a necessary user system	Command
	- Flight crew received feedback (or other input) that	Abstraction
	indicated power is needed for a necessary user system	
27.2	Feedback received by Flight crew does not adequately	Control-to-
	indicates that power is needed for a necessary user sys-	Command
	tem - it is true that power is needed for a necessary user	Abstraction
	system	
27.3	Flight crew does not provide the disconnect internal	Control-to-
	component action when power is needed for a necessary	Command
	user system - Circuit breaker receives the disconnect in-	Abstraction
	ternal component action when power is needed for a	
	necessary user system	
27.4	The disconnect internal component action is not re-	Control-to-
	ceived by Circuit breaker when power is needed for a	Command
	necessary user system - Circuit breaker responds erro-	Abstraction
	neously	

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	Table C.3 continued from previous page	
$\overline{\text{ID}}$	Scenario Text	Rationale
29.1	Flight crew provides the turn on user system action too	Continuous
	late - Flight crew received feedback (or other input) that	Control Action
	indicated the system is OFF and necessary for safe con-	
-	duct of flight on time/in order	
29.2	Feedback received by Flight crew does not indicate the	Continuous
	system is OFF and necessary for safe conduct of flight	Control Action
	on time - it is true that the system is OFF and necessary	
	for safe conduct of flight	
29.3	Flight crew provides the turn on user system action on	Continuous
	time/in order - turn on user system is received by User	Control Action
	systems too late	
29.4	The turn on user system action is not received by User	Continuous
	systems when the system is OFF and necessary for safe	Control Action
	conduct of flight - User systems executes the action too	
	late	
33.1	Circuit breaker provides the break a circuit action too	Continuous
	late - Circuit breaker received feedback (or other input)	Control Action
	that indicated overloaded on time/in order	
33.2	Feedback received by Circuit breaker does not indicate	Continuous
	overloaded on time - it is true that overloaded	Control Action
33.3	Circuit breaker provides the break a circuit action on	Continuous
	time/in order - break a circuit is received by Generator	Control Action
	Control Unit (GCU) too late	
33.4	The break a circuit action is not received by Genera-	Continuous
	tor Control Unit (GCU) when overloaded - Generator	Control Action
	Control Unit (GCU) executes the action too late	
36.1	Generator Control Unit (GCU) provides the connect ac-	Continuous
	tion too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated commanded by	
	the crew and respective generator is online, its parame-	
	ters are met on time/in order	
36.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate commanded by the crew and respective	Control Action
	generator is online, its parameters are met on time -	
	it is true that commanded by the crew and respective	
	generator is online, its parameters are met	

Table C.3 continued from previous page

	Table C.3 continued from previous page	
ID	Scenario Text	Rationale
36.3	Generator Control Unit (GCU) provides the connect ac-	Continuous
	tion on time/in order - connect is received by Engine	Control Action
	Starter-Generator too late	
36.4	The connect action is not received by Engine Starter-	Continuous
	Generator when commanded by the crew and respec-	Control Action
	tive generator is online, its parameters are met - Engine	
	Starter-Generator executes the action too late	
39.2	Feedback received by Generator Control Unit (GCU)	Context-to-
	does not adequately indicates that the generator is on-	State Abstrac-
	line and functional, and it was not commanded to do so	tion
	by the crew - it is true that the generator is online and	
	functional, and it was not commanded to do so by the	
	crew	
40.1	Generator Control Unit (GCU) provides the disconnect	Continuous
	action too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated commanded by	
	the crew on time/in order	
40.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate commanded by the crew on time - it	Control Action
	is true that commanded by the crew	
40.3	Generator Control Unit (GCU) provides the disconnect	Continuous
	action on time/in order - disconnect is received by En-	Control Action
	gine Starter-Generator too late	
40.4	The disconnect action is not received by Engine Starter-	Continuous
	Generator when commanded by the crew - Engine	Control Action
	Starter-Generator executes the action too late	
41.1	Generator Control Unit (GCU) provides the disconnect	Continuous
	action too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated respective gen-	
	erator parameters are exceeded on time/in order	
41.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate respective generator parameters are	Control Action
	exceeded on time - it is true that respective generator	
	parameters are exceeded	
	•	

Table C.3 continued from previous page

$\overline{\text{ID}}$	Scenario Text	Rationale
41.3	Generator Control Unit (GCU) provides the disconnect	Continuous
41.0	action on time/in order - disconnect is received by En-	Control Action
	gine Starter-Generator too late	Collifor Action
41.4	9	Continuous
41.4	The disconnect action is not received by Engine Starter-	
	Generator when respective generator parameters are ex-	Control Action
	ceeded - Engine Starter-Generator executes the action	
40.1	too late	- C - 1 -
42.1	Generator Control Unit (GCU) does not provide the	Control-to-
	control operations action when respective operational	Command
	parameters are exceeded - Generator Control Unit	Abstraction
	(GCU) received feedback (or other input) that indicated	
	respective operational parameters are exceeded	
42.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicate respective operational pa-	Command
	rameters are exceeded - it is true that respective opera-	Abstraction
	tional parameters are exceeded	
42.3	Generator Control Unit (GCU) does provide the control	Control-to-
	operations action when respective operational param-	Command
	eters are exceeded - control operations is not received	Abstraction
	by Distribution network when respective operational pa-	
	rameters are exceeded	
42.4	The control operations action is received by Distribu-	Control-to-
	tion network when respective operational parameters are	Command
	exceeded - Distribution network does not respond ade-	Abstraction
	quately	
43.1	Generator Control Unit (GCU) provides the control op-	Control-to-
	erations action when respective operational parameters	Command
	are met - Generator Control Unit (GCU) received feed-	Abstraction
	back (or other input) that indicated respective opera-	
	tional parameters are met	
43.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicates that respective opera-	Command
	tional parameters are met - it is true that respective	Abstraction
	operational parameters are met	
	T T T T T T T T T T T T T T T T T T T	

Table C.3 continued from previous page

ID	Scenario Text	Rationale
43.3	Generator Control Unit (GCU) does not provide the	Control-to-
	control operations action when respective operational	Command
	parameters are met - Distribution network receives the	Abstraction
	control operations action when respective operational	
	parameters are met	
43.4	The control operations action is not received by Distri-	Control-to-
	bution network when respective operational parameters	Command
	are met - Distribution network responds erroneously	Abstraction
44.1	Generator Control Unit (GCU) provides the control op-	Continuous
	erations action out of order - Generator Control Unit	Control Action
	(GCU) received feedback (or other input) that indi-	
	cated respective operational parameters are exceeded on	
	time/in order	
44.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate respective operational parameters are	Control Action
	exceeded in order - it is true that respective operational	
	parameters are exceeded	
44.3	Generator Control Unit (GCU) provides the control op-	Continuous
	erations action on time/in order - control operations is	Control Action
44.4	received by Distribution network out of order	<u> </u>
44.4	The control operations action is not received by Distri-	Continuous
	bution network when respective operational parameters are exceeded - Distribution network executes the action	Control Action
	out of order	
45.1	Generator Control Unit (GCU) does not provide the	Control-to-
49.1	starter cutoff action when the starter-generator is active	Command
	and exceeds respective operational parameters - Gen-	Abstraction
	erator Control Unit (GCU) received feedback (or other	110501400011
	input) that indicated the starter-generator is active and	
	exceeds respective operational parameters	
45.2	Feedback received by Generator Control Unit (GCU)	Control-to-
- '	does not adequately indicate the starter-generator is ac-	Command
	tive and exceeds respective operational parameters - it	Abstraction
	is true that the starter-generator is active and exceeds	
	respective operational parameters	

Table C.3 continued from previous page

$\overline{\text{ID}}$	Scenario Text	Rationale
$\frac{15}{45.3}$	Generator Control Unit (GCU) does provide the starter	Control-to-
10.0	cutoff action when the starter-generator is active and ex-	Command
	ceeds respective operational parameters - starter cutoff	Abstraction
	is not received by Distribution network when the starter-	1100010001011
	generator is active and exceeds respective operational	
	parameters	
45.4	The starter cutoff action is received by Distribution net-	Control-to-
	work when the starter-generator is active and exceeds re-	Command
	spective operational parameters - Distribution network	Abstraction
	does not respond adequately	
46.1	Generator Control Unit (GCU) provides the starter cut-	Control-to-
	off action when the starter-generator is active and re-	Command
	spective operational parameters are met - Generator	Abstraction
	Control Unit (GCU) received feedback (or other input)	
	that indicated the starter-generator is active and respec-	
	tive operational parameters are met	
46.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicates that the starter-generator	Command
	is active and respective operational parameters are met	Abstraction
	- it is true that the starter-generator is active and re-	
	spective operational parameters are met	
46.3	Generator Control Unit (GCU) does not provide the	Control-to-
	starter cutoff action when the starter-generator is active	Command
	and respective operational parameters are met - Distri-	Abstraction
	bution network receives the starter cutoff action when	
	the starter-generator is active and respective operational	
10.1	parameters are met	<u> </u>
46.4	The starter cutoff action is not received by Distribution	Control-to-
	network when the starter-generator is active and respec-	Command
	tive operational parameters are met - Distribution net-	Abstraction
47 1	work responds erroneously	Wasana
47.1	Generator Control Unit (GCU) provides the starter cut-	Wrong Genera-
	off action undefined - Generator Control Unit (GCU)	tion / Out of
	received feedback (or other input) that indicated on	Scope
	time/in order	

Table C.3 continued from previous page

	Table C.3 continued from previous page	
ID	Scenario Text	Rationale
47.2	Feedback received by Generator Control Unit (GCU)	Wrong Genera-
	does not indicate undefined - it is true that	tion / Out of
		Scope
47.3	Generator Control Unit (GCU) provides the starter cut-	Wrong Genera-
	off action on time/in order - starter cutoff is received by	tion / Out of
	Distribution network undefined	Scope
47.4	The starter cutoff action is not received by Distribution	Wrong Genera-
	network when Distribution network executes the	tion / Out of
	action undefined	Scope
48.1	Circuit breaker does not provide the connect a circuit	Control-to-
	action when instructed by the crew and the circuit is	Command
	not overloaded - Circuit breaker received feedback (or	Abstraction
	other input) that indicated instructed by the crew and	
	the circuit is not overloaded	
48.2	Feedback received by Circuit breaker does not ade-	Control-to-
	quately indicate instructed by the crew and the circuit	Command
	is not overloaded - it is true that instructed by the crew	Abstraction
	and the circuit is not overloaded	
48.3	Circuit breaker does provide the connect a circuit action	Control-to-
	when instructed by the crew and the circuit is not over-	Command
	loaded - connect a circuit is not received by Distribution	Abstraction
	network when instructed by the crew and the circuit is	
	not overloaded	
48.4	The connect a circuit action is received by Distribution	Control-to-
	network when instructed by the crew and the circuit is	Command
	not overloaded - Distribution network does not respond	Abstraction
	adequately	
49.1	Circuit breaker provides the connect a circuit action	Control-to-
	when the circuit is overloaded - Circuit breaker received	Command
	feedback (or other input) that indicated the circuit is	Abstraction
	overloaded	
49.2	Feedback received by Circuit breaker does not ade-	Control-to-
	quately indicates that the circuit is overloaded - it is	Command
	true that the circuit is overloaded	Abstraction

Table C.3 continued from previous page

ID	Scenario Text	Rationale
49.3	Circuit breaker does not provide the connect a circuit	Control-to-
	action when the circuit is overloaded - Distribution net-	Command
	work receives the connect a circuit action when the cir-	Abstraction
	cuit is overloaded	
49.4	The connect a circuit action is not received by Distribu-	Control-to-
	tion network when the circuit is overloaded - Distribu-	Command
	tion network responds erroneously	Abstraction
50.1	Circuit breaker provides the connect a circuit action too	Continuous
	late - Circuit breaker received feedback (or other input)	Control Action
	that indicated instructed and the circuit is not over-	
	loaded on time/in order	
50.2	Feedback received by Circuit breaker does not indicate	Continuous
	instructed and the circuit is not overloaded on time - it	Control Action
	is true that instructed and the circuit is not overloaded	
50.3	Circuit breaker provides the connect a circuit action on	Continuous
	time/in order - connect a circuit is received by Distribu-	Control Action
	tion network too late	
50.4	The connect a circuit action is not received by Distri-	Continuous
	bution network when instructed and the circuit is not	Control Action
	overloaded - Distribution network executes the action	
	too late	