As mentioned in Section 4, staff has eliminated the planned simulations of 50 percent of each standard's shutoff criteria. Therefore, staff revised Table 10 of the plan as detailed below:

Table 10. CO Shutoff Criteria for Simulations

	PGMA G300 Criteria (ppmv)	**UL 2201 Criteria (ppmv)**
Instantaneous	>800	400
10-min rolling average	>400	150

Section 8. Simulation Methodology

Staff is simulating all of the scenarios defined in the tables in Appendix A for a 24-hour period over a range of 28 days in different weather conditions, with shutoff criteria associated with each of the two voluntary standards, and with no shutoff criteria for baseline generators. These simulations are being run in all 40 model structures for the class 1 and class 2 single-cylinder generator categories of generators; whereas, for the handheld and class 2 twin-cylinder generator categories, the simulations are being run in only the three model structures identified in Section 4, as reflecting corresponding fatal incident data.

Section A.2 Effectiveness Analysis

As a result of the new scenario tables provided in Appendix A, the options listed in TN 2048 have been revised as follows:

1. No restart, or
2. Restart in the same location, and if shut off recurs, then move the generator outside and restart a second time; or
3. Restart in the same location, but with change in window opening; and if shut off recurs, then move the generator outside, and restart a second time; or
4. Move to a more isolated area (this could be either another room on the first floor of the house that has a door that isolates the generator, a crawlspace, a basement, or a garage) and restart; and if shut off recurs, then move the generator outside and restart a second time; or
5. Move the generator outside and then restart.

CPSC staff assumed probabilities for each of these scenarios and they are subsequently used as the weights for each.

Staff has identified two types of occupants who are potential[f] victims: the *operator* who has direct interaction with the generator, and the *collateral person* who is within the same house or

[f] The word *potential* is used here because the simulations with the voluntary standard-compliant generators may not produce COHb levels associated with fatal or injured occupants. However, the reader is reminded that the simulations with the baseline generators are based on incidents in CPSC's databases, each resulting in one or more fatalities.

Table 3.d. [G300] Scenario for Houses with Crawlspace But No Basement or Garage, with Generator Initially Operated Outside

Structure Type: HOUSE		Garage: No		Basement: No		Crawlspace: Yes		FINAL SCENARIO WEIGHTS
Initial Location:	Outside			Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Exterior door to kitchen is open 10 cm. Start generator in a location outside of kitchen where CO enters home.							
Restart Scenarios								
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario	2nd restart	2nd Reaction		
Q	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	Actual Deaths for specific house model	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	N/A	N/A	N/A		Actual Deaths for specific house model

Table 4.a. [G300] Scenarios for Houses with Basement, But No Crawlspace or Garage, with Generator Initially Operated in Kitchen

Structure Type: HOUSE		Garage: No		Basement: Yes		Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Kitchen			Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Kitchen window is closed. Exhaust plume mixes in kitchen.							
Restart Scenarios								
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight		
A	No restart	0.0500	N/A	1.0000	N/A	1.0000		0.0500
B1	Operator restarts in kitchen.	0.4500	None.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9		0.2025
B2					Operator moves generator to outside of kitchen where CO enters home.	0.1		0.0225
B3			Kitchen window is open fully.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9		0.2025
B4					Operator moves generator to outside of kitchen where CO enters home.	0.1		0.0225
C1	Operator moves and restarts the generator in basement. Exhaust plume mixes in basement.	0.2500	Window in basement is open fully.	1.0000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9		0.2250
C2					Operator moves generator to outside of kitchen where CO enters home.	0.1		0.0250
D1	Operator moves generator to outside of kitchen.	0.2500	CO does not enter home.	0.9000	N/A	1.0000		0.2250
D2			CO enters home.	0.1000	N/A	1.0000		0.0250

Table 4.b. [G300] Scenarios for Houses with Basement, But No Crawlspace or Garage, with Generator Initially Operated in Basement

Structure Type: HOUSE		Garage: No	Basement: Yes		Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Basement		Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Basement stairway door is open 10 cm. Window in basement is closed. Exhaust plume mixes in basement.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
E	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0500
F1	Operator restarts generator in basement.	0.6167	No change.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2775
F2					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0308
F3			Window in basement open fully.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2775
F4					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0308
G1	Operator moves generator to outside of kitchen.	0.3333	CO does not enter home.	0.9000	N/A	1.0000	0.3000
G2			CO enters home.	0.1000	N/A	1.0000	0.0333

Table 4.c. [G300] Scenario for Houses with Basement, But No Crawlspace or Garage, with Generator Initially Operated Outside

Structure Type: HOUSE		Garage: No	Basement: Yes		Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Outside		Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Exterior door to kitchen is open 10 cm. Start generator in a location outside of kitchen where CO enters home.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
H	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	Actual Deaths for specific house model	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	N/A	N/A	N/A	Actual Deaths for specific house model

Table 5.a. [G300] Scenarios for Houses with Garage But No Basement or Crawlspace, with Generator Initially Operated in the Kitchen

Structure Type: HOUSE		Garage: Yes		Basement: No		Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Kitchen			Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Kitchen window is closed. Exhaust plume mixes in kitchen.							
Restart Scenarios								
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions		Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
A	No restart	0.0500	N/A		1.0000	N/A	1.0000	0.0500
B1	Operator restarts in kitchen.	0.4500	None.		0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2025
B2						Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0225
B3			Kitchen window is open fully.		0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2025
B4						Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0225
C1	Operator moves and restarts generator in garage. Bay door closed.	0.1250	Exhaust facing away from wall that has door to house interior. Exhaust plume mixes inside garage.		0.7500	Restart after moving generator to outside of _garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0469
C2						Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C3			Exhaust facing toward the wall that has door to house interior. Exhaust plume pushes some of exhaust into house.		0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0156
C4						Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
C5	Operator moves and restarts in garage. Bay door is open fully.	0.1250	Exhaust facing away from wall that has door to house interior. Exhaust plume mixes inside garage.		0.7500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0469
C6						Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C7			Exhaust facing toward the wall that has door to house interior. Exhaust plume pushes some of exhaust into house.		0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0156
C8						Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
D1	Operator moves generator to outside of kitchen.	0.2500	CO does not enter home.		0.9000	N/A	1.0000	0.2250
D2			CO enters home.		0.1000	N/A	1.0000	0.0250

Table 5.b.i. [G300] Scenarios for Houses with Garage But No Basement or Crawlspace, with Generator Initially Operated in Garage with Generator Exhaust Facing Away from Wall that has Door to House Interior. Exhaust Mixes in Garage. [Scenario weight total = 75%]

Structure Type: HOUSE		Garage: Yes	Basement: No	Crawlspace: No			FINAL SCENARIO WEIGHTS
Initial Location:	Garage		Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Door to house interior is open 10 cm. Bay door is closed. Generator is in center of garage. Exhaust plume mixes in garage.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
E	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0375
F1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.1156
F2					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
F3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.1156
F4					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
G1	Operator opens bay door, moves and restarts generator outside garage.	0.3333	Bay door is closed after operator returns to house. CO does not enter garage.	0.5000	N/A	1.0000	0.1250
G2			Operator leaves bay door open after returning to house. CO enters the garage.	0.5000	N/A	1.0000	0.1250

Table 5.b.ii. [G300] Scenarios for Houses with Garage But No Basement or Crawlspace, with Generator Initially Operated in Garage with Generator Exhaust Facing Toward Wall that has Door to House Interior. Exhaust Plume Pushes Some of Exhaust Into House. [Scenario weight total = 25%]

Structure Type: HOUSE		Garage: Yes		Basement: No	Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Garage			Weight for Home Type: (# deaths allocated to this home * % this location)			
Initial Conditions:	Door to house interior is open 10 cm. Bay door is closed. Generator is in center of garage. Exhaust facing toward wall with door to house interior.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
H	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0125
I1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0385
I2					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0385
I3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0385
I4					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0385
J1	Operator opens bay door, moves and restarts generator outside garage.	0.3333	Bay door is closed after operator returns to house. CO does not enter garage.	0.5000	N/A	1.0000	0.0417
J2			Operator leaves bay door open after returning to house. CO enters the garage.	0.5000	N/A	1.0000	0.0417

Table 5.c. [G300] Scenario for Houses with Garage But No Basement or Crawlspace, with Generator Initially Operated Outside

Structure Type: HOUSE		Garage: No		Basement: No	Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Outside			Weight for Home Type: (# deaths allocated to this home * % this location)			
Initial Conditions:	Exterior door to kitchen is open 10 cm. Start generator in a location outside of kitchen where CO enters home.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
K	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	Actual Deaths for specific house model	N/A	N/A	N/A	N/A	Actual Deaths for specific house model

Table 6.a. [G300] Scenario for Houses with Garage and Basement But No Crawlspace, with Generator Initially Operated In Kitchen

Structure Type: HOUSE		Garage: Yes	Basement: Yes	Crawlspace: No			FINAL SCENARIO WEIGHTS
Initial Location:	Kitchen		Weight for Home Type: (# deaths allocated to this home * % this location)				
Initial Conditions:	Kitchen window is closed. Exhaust plume mixes in kitchen.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
A	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0500
B1	Operator restarts in kitchen.	0.4500	None.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2025
B2					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0225
B3			Kitchen window is open fully.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2025
B4					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0225
C1	Operator moves and restarts generator in garage. Bay door closed.	0.1250	Exhaust facing away from wall that has door to house interior. Exhaust plume mixes inside garage.	0.7500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0469
C2					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C3			Exhaust facing toward the wall that has door to house interior. Exhaust plume pushes some of exhaust into house.	0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0156
C4					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
C5	Operator moves and restarts in garage. Bay door is open fully.	0.1250	Exhaust facing away from wall that has door to house interior. Exhaust plume mixes inside garage.	0.7500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0469
C6					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C7			Exhaust facing toward the wall that has door to house interior. Exhaust plume pushes some of exhaust into house.	0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0156
C8					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
D1	Operator moves generator to outside of kitchen.	0.2500	CO does not enter home.	0.9000	N/A	1.0000	0.2250
D2			CO enters home.	0.1000	N/A	1.0000	0.0250

Table 6.b. [G300] Scenarios for Houses with Garage and Basement But No Crawlspace, with Generator Initially Operated In Basement

Structure Type: HOUSE		Garage: Yes		Basement: Yes	Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Basement			Weight for Home Type: (# deaths allocated to this home * % this location)			
Initial Conditions:	Basement stairway door is open 10 cm. Window in basement is closed. Exhaust plume mixes in basement						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
E	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0500
F1	Operator restarts generator in basement.	0.6167	No change.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2775
F2					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0308
F3			Window in basement open fully.	0.5000	Operator moves generator to outside of kitchen where CO does not enter home.	0.9	0.2775
F4					Operator moves generator to outside of kitchen where CO enters home.	0.1	0.0308
G1	Operator moves generator to outside of kitchen.	0.3333	CO does not enter home.	0.9000	N/A	1.0000	0.3000
G2			CO enters home.	0.1000	N/A	1.0000	0.0333

Table 6.c.i. [G300] Scenarios for Houses with Garage and Basement But No Crawlspace, with Generator Initially Operated In Garage, with Generator Exhaust Facing Away from Wall that has Door to House Interior. Exhaust Mixes In Garage. [Scenario weight total to 75%]

Structure Type: HOUSE		Garage: Yes		Basement: Yes	Crawlspace: No		FINAL SCENARIO WEIGHTS
Initial Location:	Garage			Weight for Home Type: (# deaths allocated to this home * % this location)			
Initial Conditions:	Door to house interior is open 10 cm. Bay door is closed. Generator is in center of garage. Exhaust plume mixes in garage.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
H	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0375
I1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.1156
I2					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
I3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.1156
I4					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
J1	Operator opens bay door, moves and restarts generator outside garage.	0.3333	Bay door is closed after operator returns to house. CO does not enter garage.	0.5000	N/A	1.0000	0.1250
J2			Operator leaves bay door open after returning to house. CO enters the garage.	0.5000	N/A	1.0000	0.1250

Table 6.c.ii. [G300] Scenarios for Houses with Garage and Basement But No Crawlspace, with Generator Initially Operated In Garage, with Generator Exhaust Facing Toward Wall that has Door to House Interior. Exhaust Plume Pushes Some of Exhaust Into House. [Scenario weight total to 25%]

Structure Type: HOUSE	Garage: Yes	Basement: Yes	Crawlspace: No	FINAL SCENARIO WEIGHTS
Initial Location:	Garage	Weight for Home Type: (# deaths allocated to this home * % this location)		
Initial Conditions:	Door to house interior is open 10 cm. Bay door is closed. Generator is in center of garage. Exhaust plume is facing towards wall that has door to house interior.			

Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
K	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0125
L1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0385
L2					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0385
L3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to house.	0.5	0.0385
L4					Restart after moving generator to outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0385
M1	Operator opens bay door, moves and restarts generator outside garage.	0.3333	Bay door is closed after operator returns to house. CO does not enter garage.	0.5000	N/A	1.0000	0.0417
M2			Operator leaves bay door open after returning to house. CO enters the garage.	0.5000	N/A	1.0000	0.0417

Table 6.d. [G300] Scenario for Houses with Garage and Basement But No Crawlspace, with Generator Initially Operated Outside

Structure Type: HOUSE	Garage: Yes	Basement: Yes	Crawlspace: No	FINAL SCENARIO WEIGHTS
Initial Location:	Outside	Weight for Home Type: (# deaths allocated to this home * % this location)		
Initial Conditions:	Generator located outside kitchen. Door to kitchen is open 10 cm.			

Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
N	Generator does not shutoff until the tank is empty; therefore, there are no restart scenarios.	Actual Deaths for specific house model	N/A	N/A	N/A	N/A	Actual Deaths for specific house model

Table 7. [G300] Scenarios for Detached 1-Car and 2-Car Garages (GAR1 and GAR2) with Generator Operated In Garage

Structure Type: DETACHED GARAGE		GAR1 & GAR2					FINAL SCENARIO WEIGHTS
Initial Location:	Garage	Weight for Home Type: (# deaths allocated to this home * % this location)					
Initial Conditions:	Bay door is closed. Generator is in center of garage. Exhaust plume mixes in garage						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
A	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0500
B1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1542
B2					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1542
B3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1542
B4					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1542
C1	Operator opens bay door, moves and restarts generator outside garage. Operator returns to garage.	0.3333	None. CO does not enter garage.	0.5000	NA	1.0000	0.1667
C2			Bay door is open fully. CO enters the garage.	0.5000	NA	1.0000	0.1667

Table 8.a. [G300] Scenarios for Detached Garage Containing a Workshop or Other Room (GAR3) with Generator Initially Operated in Workshop Room

Structure Type: DETACHED GARAGE		GAR3					FINAL SCENARIO WEIGHTS
Initial Location:	Workshop in Garage	Weight for Home Type: (# deaths allocated to this home * % this location)					
Initial Conditions:	Bay door is closed. Generator is in center of workshop room. Workshop door is closed. Exhaust plume mixes in workshop room.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
A	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0500
B1	Restart in same room with generator exhaust plume staying in room.	0.4500	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1125
B2					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1125
B3			Window in workshop room is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1125
B4					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1125
C1	Move and restart in garage. Bay door closed.	0.1250	Door to workshop room is open 10 cm. Exhaust facing away from wall with door to workshop room. Exhaust plume mixes inside garage.	0.7500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.0469
C2					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C3			Door to workshop room is open 10 cm. Exhaust facing toward the wall with door to shop. Exhaust plume pushes some of exhaust into workshop room.	0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.0156
C4					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
C5	Move and restart in garage. Bay door is open fully.	0.1250	Door to workshop room is open 10 cm. Exhaust facing away from wall with door to workshop room. Exhaust plume mixes inside garage.	0.7500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.0469
C6					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0469
C7			Door to workshop room is open 10 cm. Exhaust facing toward the wall with door to shop. Exhaust plume pushes some of exhaust into workshop room.	0.2500	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.0156
C8					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.0156
D1	Operator opens bay door, moves and restarts generator outside garage. Operator returns to original location.	0.2500	None. CO does not enter garage.	0.5000	NA	1.0000	0.1250
D2			Bay door is open fully. CO enters the garage.	0.5000	NA	1.0000	0.1250

Table 8.b.i. [G300] Scenarios for Detached Garage Containing a Workshop or Other Room (GAR3) with Generator Initially Operated In Garage, with Exhaust Oriented Away from Wall with Door to Workshop Room [Scenario weight total to 75%]

Structure Type: DETACHED GARAGE		GAR3					FINAL SCENARIO WEIGHTS
Initial Location:	Garage	Weight for Home Type: (# deaths allocated to this home * % this location)					
Initial Conditions:	Door to workshop is open 10 cm. Bay door is closed. Generator is in center of garage. Exhaust is facing away from wall with door to workshop. Exhaust mixes in garage.						
Restart Scenarios							
Scenario	Response to Shutoff	Scenario Weight	Changes from Initial Conditions	Sub-Scenario Weight	2nd restart	2nd Reaction Weight	
A	No restart	0.0500	N/A	1.0000	N/A	1.0000	0.0375
B1	Restart in garage.	0.6167	None.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1156
B2					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
B3			Bay door is open fully.	0.5000	Restart after moving generator to outside of garage where CO does not enter garage. Garage bay door is open until operator returns to inside garage.	0.5	0.1156
B4					Restart after moving generator to a outside of garage where CO enters garage. Garage bay door is open by operator and remains open.	0.5	0.1156
C1	Operator opens bay door, moves and restarts generator outside garage. Operator returns to original location.	0.3333	None. CO does not enter garage.	0.5000	NA	1.0000	0.1250
C2			Bay door is open fully. CO enters the garage.	0.5000	NA	1.0000	0.1250