

MGL0910 Mitigation Operational Constraints, v1

Safety Radii

	Power down radius full source level	Shut down radius single gun level	Shut down period*
SARA Whales	160 db	500 m (defined by SOP)	60 min
Large Whales	180 db	180 db single	30 min
Dolphins and Porpoises	180 db	180 db single	15 min
Pinnipeds	190 db	190 db single	15 min
Turtles	180 db	500 m (defined by SOP)	30 min

	190 db	180 db	160 db
Single 40 in3	12	40	385
Full source 6m	220	710	4670
Full source 9m	300	950	6000
Full source 12m	340	1120	6850
Full source 15m	380	1220	7690

15 m Gun Depth

	Power down radius full source level	Shut down radius single gun level	Shut down period*
SARA Whales	7690 m	500 m	60 min
Large Whales	1220 m	40	30 min
Dolphins and Porpoises	1220 m	40	15 min
Pinnipeds	340 m	12	15 min
Turtles	1220 m	500 m	30 min

9 m Gun Depth

	Power down radius full source level	Shut down radius single gun level	Shut down period*
SARA Whales	6000 m	500 m	60 min
Large Whales	950 m	40 m	30 min
Dolphins and Porpoises	950 m	40 m	15 min
Pinnipeds	300 m	12 m	15 min
Turtles	950 m	500 m	30 min

Definitions		
Area of Operations	“80 Km long section of the Endeavor segment of the Juan de Fuca Ridge, which is approximately 250 km southwest of Vancouver Island”	
Time Period		
Maximum Array Power		
Number of Sources	36	
Spatial Volume	6600 ci	
Decibel Volume	250 Db/265 Db – Need clarification	
Mitigation, Proactive		
Observation period pre ramp-up	60 minutes	
Safety Radius – 1 x 40cu source	500m	
Safety Radius – Other	1220m	

Observation period before ramp-up		
Shot-to-shot minimum time	“If the array is powered down for maintenance or other operational reasons, use of the single 40-in3 airgun should be continued until ramp-up of the full array takes place.”	
Mitigation, Reactive		

Flags

Section 4:

“A complete shut-down of the array, including the 40-in3 airgun, will take place should a marine mammal be observed within or about to enter the exclusion zone (1220 m for 2 or more units of the airgun array or 500 m for a single airgun).