1 2 3 4 5 6 7	MAYA LOPEZ GRASSE (State Bar No. 27901 ALSTON & BIRD LLP 350 South Grand Avenue, 51st Floor Los Angeles, CA 90071 Telephone: 213-576-1000 Facsimile: 213-576-1100 Attorneys for Petitioner SNOW SUMMIT, LLC	3)					
8	BEFORE THE HEARIN	NG BOARD OF THE					
9	SOUTH COAST AIR QUALITY	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT					
10	In the Matter of	Case No.: 4657-3					
11	SNOW SUMMIT, LLC	Facinty I.D.: 185352					
12	Petitioner.	IN SUPPORT OF PETITION FOR					
13		SHORT VARIANCE					
14							
15							
16	1. My name is John Furlon, and I ar	n a Principal Scientist at Yorke Engineering,					
17	LLC ("Yorke"), a technical consulting company that has been assisting Petitioner Snow						
18	Summit, LLC ("Snow Summit") in connection with South Coast Air Quality Management						
19	District ("District") permitting and compliance at Snow Summit's ski resort, a RECLAIM and						
20	Title V facility located at 880 Summit Boulevard, Big Bear Lake City, California. I have been						
21	employed at Yorke for 11 years. I have personal knowledge of the facts stated herein and, if						
22	called as a witness, could and would testify competently thereto under oath.						
23	2. I am familiar with Snow Summit's Petition for Short Variance filed with District						
24	on October 28, 2024 ("Petition"), including the Snow Summit's Title V permit and the District						
25	Rules involved in the Petition						

3. This declaration provides additional technical information regarding the
equipment that is the subject of the Petition. This declaration also provides technical
information regarding the calculation of excess emissions.

EQUIPMENT SUBJECT TO THE VARIANCE

1

2

3

4

5

6

4. As explained in the Declaration of Wade Reeser ("Reeser Declaration"), the six engines that are the subject of the Petition drive electrical generators used to power Snow Summit snowmaking equipment. The six engines, as they are described in the Snow Summit's Title V permit, are as follows:

7	Equipment/Activity	Application/ Permit No.	RECLAIM Device No.
8	INTERNAL COMBUSTION ENGINE, LEAN BURN, NON-EMERGENCY,	A/N 629605	D69
9	G-1, DIESEL FUEL, CUMMINS. MODEL QSK78-G6, DRIVING AN ELECTRICAL GENERATOR WITH		
10	AFTERCOOLER, TURBOCHARGER, 3043 HP		
11	INTERNAL COMBUSTION ENGINE, LEAN BURN, NON-EMERGENCY.	A/N 629659	D70
12	G-2, DIESEL FUEL, CUMMINS, MODEL QSK78-G6, DRIVING AN		
13	ELECTRICAL GENERATOR, WITH AFTERCOOLER, TURBOCHARGER,		
14	3043 HP INTERNAL COMBUSTION ENGINE,	A/N 629634	D75
15	LEAN BURN, NON-EMERGENCY, G-3, DIESEL FUEL, CUMMINS.		
16	MODEL QSK78-G6, 18 CYLINDERS, DRIVING AN ELECTRICAL		
17	GENERATOR, WITH AFTERCOOLER, TURBOCHARGER, 2042 HD		
18	INTERNAL COMBUSTION ENGINE,	A/N 629635	D78
19	LEAN BURN, NON-EMERGENCY, G-4, DIESEL FUEL, CUMMINS,		
20	MODEL QSK78-G6, 18 CYLINDERS, DRIVING AN ELECTRICAL GENERATOR WITH AFTERCOOLER		
21	TURBOCHARGER, 3043 HP		
22	INTERNAL COMBUSTION ENGINE, LEAN BURN, NON-EMERGENCY,	A/N 629636	D79
23	G-5, DIESEL FUEL, CUMININS, MODEL QSK78-G6, 18 CYLINDERS, DRIVING AN ELECTRICAL		
24	GENERATOR, WITH AFTERCOOLER, TURBOCHARGER, 3043 HP		
25	INTERNAL COMBUSTION ENGINE,	A/N 629637	D80
26	G-6, DIESEL FUEL, CUMMINS, MODEL OSK78-G6, 18 CYLINDERS		
27	DRIVING AN ELECTRICAL GENERATOR, WITH AFTERCOOLER,		
28	TURBOCHARGER, 3043 HP		

2 DECLARATION OF JOHN FURLONG 5. These are large engines which together can generate up to the nearly 14.5 megawatts (MW) of power needed to power Snow Summits snowmaking equipment.

EXCESS EMISSIONS

6. Included as Attachment A is the excess emissions calculation prepared by District staff. I have reviewed and concur with these calculations. For each day that one of the six engines operates, if operating up to their maximum permitted capacity, the worst-case excess emissions for each engine in pounds per day during the variance period are estimated to amount to approximately 72.1 of CO, 7.2 of PM10, 144.9 of NOx, 0.8 of SOx, and 13.7 of VOC-. Total worst-case excess emissions from all six engines combined in pounds per day are estimated to amount to approximately 433 of CO, 43 of PM10, 869 of NOx, 5 of SOx, and 82 of VOC. However, those estimates-likely over-estimate the potential excess emissions and their consideration requires some context. Specifically, the excess emission estimates noted above assume the engines will all run at 100% maximum capacity at the permit limit for 24 hour per day, non-stop. However, all six engines will not likely run at 100% maximum capacity, will not likely run non-stop 24-hours per day, and will likely emit emissions below the permit limit as evident from recent source test results.

7. First, depending on the snowmaking activities at any given time, not all of the engines may be operating at the same time, although they could. Indeed, while the conditions propose that each engine would be allowed to operate an additional 300 hours beyond the current permit limit of 500 hours, it is possible and in fact likely that not all engines will need to operate up to that maximum requested amount. Therefore, the actual excess emissions from each engine could be far less than the worst-case estimation.

8. Second, based on our understanding of these engine operations, including source
test results, all of the engines operate well below their permitted limits. And ultimately, excess
emissions will be less than even this estimate if favorable weather conditions occur that reduce
the need to make artificial snow.

27 || / / /

28 || / / /

9. The six engines are all equipped with hour meters. Snow Summit will plan to calculate the excess emissions based on the number of running hours during the variance period. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to my personal knowledge. Executed this 14th day of November 2024, in the County of Orange, State of California. Lunh John Furlong DECLARATION OF JOHN FURLONG

Attachment A

Excess Emission Calculcations Snow Summit, LLC Facility ID 185352 Case No 4657-3, Duration of Variance: 50 Days (11/20-12/31/24)

Note: Total excess emissions are calculated using worse case sceniro of 24 hours of operation each day. 6 engines listed in petition for variance are identical.

Pollutant	Emission Factors taken from permit standard (g/BHP-hr)	Emission Rate (lb/hr)	Hours per Day	Excess Emissions/Engine (lbs/day)	Excess Emissions for 6 Identical Engines (lbs/day)	Excess Emissions for all engines (tons/day)	Variance Duration (days)	Total Excess Emisisons (tons)	Cost Per ton from Rule 303	Fees
CO	0.448	3.01	24	72.1	433	0.216	50	10.8	\$ 74.88	\$ 810.19
PM	0.01	0.07	24	1.6	10	0.005	50	0.2	\$ 5,351.66	\$ 1,292.50
PM10	0.045	0.30	24	7.2	43	0.022	50	1.1	N/A	N/A
NOx ^a	0.9	6.04	24	144.9	869	0.435	50	21.7	\$ 4,589.18	\$ 99,751.30
SOx ^b	0.0049	0.03	24	0.8	5	0.002	50	0.1	\$ 5,351.66	\$ 633.32
VOC ^e	3.75 lbs/1000 gal	0.57	24	13.7	82	0.041	50	2.1	\$ 7,649.65	\$ 15,712.57
^a RECLAIM conversion factor of 0.018 used to convert NOx permitted limit of 50 ppmv to g/bhp-hr						Total Fees	\$ 118,199.88			

Operational Parameters and Constants				
BHP Rating	3,043			
Conversion Factor (g/lb)	453.59			
Conversion Factor (lb/ton)	2,000			

^bEmission Factor is from conversion of 15 ppm sulfur content

cAssuming 5 gal/hr of fuel usage for every 100 BHP