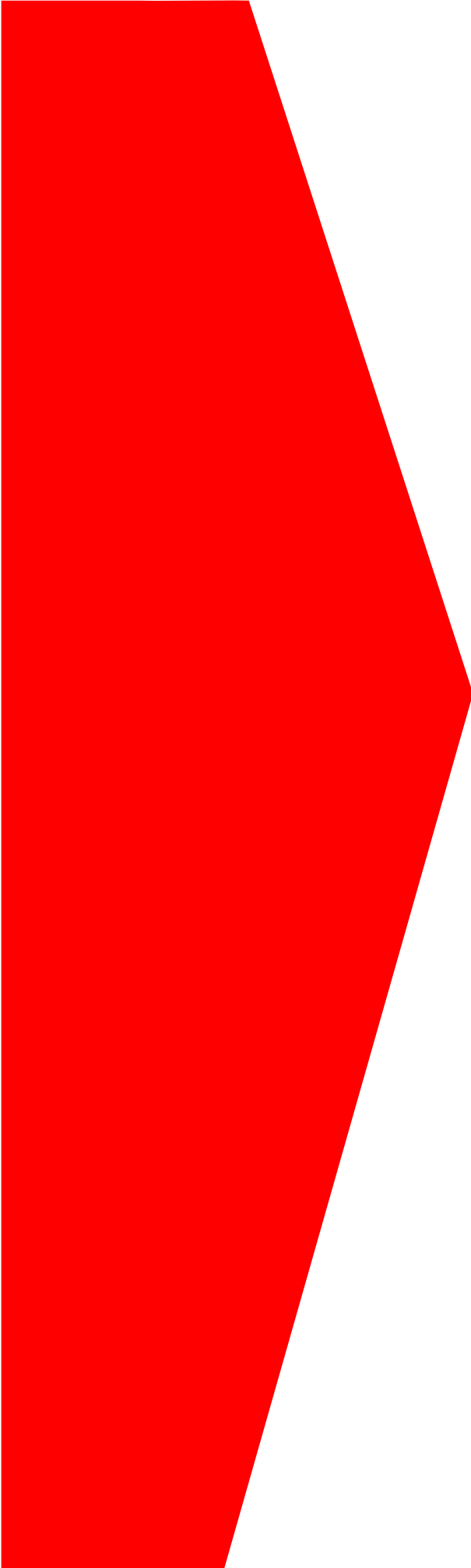


Attachment C
Addendum to Operational Noise Limit
Supplement

Westwood

April 15, 2022



Grover Hill Wind Farm
Addendum to Operational Noise Limit Supplement
Paulding County, OH
April 15, 2022

Prepared By:

Westwood

Prepared For:

Starwood Energy Group

April 15, 2022

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Introduction

This document serves as an addendum to the Operational Noise Limit Supplement prepared by Westwood Professional Services on January 5, 2022 and included in the site permit application submitted on May 21, 2021.

Recent changes to the proposed turbine layout resulted in the relocation of turbines T26, T31, T34, T43. Westwood conducted supplemental analysis to determine if the modified layout meets compliance with noise limit regulations detailed in the original assessment. Westwood has previously established an agreed upon operational noise limit in cooperation with OPSB that takes into consideration results from an area wide ambient noise level measurement.

The noise limit established satisfies the following regulation and is set to the limits shown in **Table 1**.

“The facility shall be operated so that the facility noise contribution does not result in noise levels at the exterior of any currently existing nonparticipating sensitive receptor that exceed the project area ambient nighttime Leq of 39 dBA, plus five dBA. During daytime operations only, 7:00 a.m. to 10:00 p.m., the facility may operate at the greater of: (a) the project area ambient nighttime Leq, 39 dBA, plus five dBA; or (b) the validly measured ambient (Leq), plus five dBA, at the location of the sensitive receptor.”

Table 1 Operational Noise Limits

	Nighttime Ambient Sound Level (dBA)	Sound Level Limit (Nighttime Ambient plus 5 dBA)
Receptors within 250 feet of a roadway	42 dBA	47 dBA
Receptors beyond 250 feet of a roadway	37 dBA	42 dBA

Wind Turbine Locations

The current turbine modeled is the same as assumed in the prior study, namely the GE 3.0-140 as detailed below.

Rated Power: 3.0 MW
 Rotor Diameter: 140 m (459.3 ft)
 Hub Height: 89 m (291.9 ft)
 Cut-in Wind Speed: 3 m/s (6.7 mph)
 Cut-out Wind Speed: 30 m/s (67.1 mph)

The table below details the differences in locations and the distances between the original and the modified locations.

Table 2 below details the differences in locations and the distances between the original and the modified locations.

Table 2 Coordinates of Modified Turbine Positions

UTM Zone 16, NAD83m Meters

Original Turbine Locations			Modified Turbine Locations			Shift Dist (m)
Easting (m)	Northing (m)	ID	Easting (m)	Northing (m)	New ID	
711657	4545215	T-26	711657	4545299	T-26a	84
711098	4542888	T-31	711090	4542864	T-31a	25
712830	4543215	T-34	712912	4543222	T-34a	82
711811	4541743	T-43	711809	4541788	T-43a	65

Noise Modeling and Mitigation Results

To determine the proposed turbine array that will operate in compliance with the recommended noise limits, Westwood analyzed the site specifics through a model built in WindPRO. Previous modeling assumptions, including the assumed turbine type and hub height were kept the same. The layout configuration accounting for the updated array coordinates discussed in section 2, while utilizing reduced operation (NRO) modes was determined. **Table 3** below shows the layout configuration required to meet the operational limit for the project. **Table 4** contains the predicted noise levels at each noise sensitive receptor previously considered. The overall result is that only one different NRO mode was required on T16 to achieve compliance.

Table 3 Grover Hill Turbine Layout and required NRO Reductions

UTM Zone 16 N, NAD83 Meters						
Turbine ID	Easting (m)	Northing (m)	Ground Elevation AGL (m)	Turbine Model	Unmitigated Sound Power Level (dBA) + 2 dB uncertainty	Required NRO Attenuation (dB)
T11	709299	4546653	220.6	GE 3.0-140	110 dBA	1
T13	709959	4546233	219.0	GE 3.0-140	110 dBA	0
T14	710122	4545851	219.4	GE 3.0-140	110 dBA	4
T15	710962	4545865	220.4	GE 3.0-140	110 dBA	4
T16	711617	4545819	220.2	GE 3.0-140	110 dBA	4
T17	709513	4545067	221.2	GE 3.0-140	110 dBA	0
T25	711572	4544740	220.8	GE 3.0-140	110 dBA	0
T26a	711657	4545299	220.7	GE 3.0-140	110 dBA	4
T27	709406	4543383	222.3	GE 3.0-140	110 dBA	0
T28	710071	4543413	221.7	GE 3.0-140	110 dBA	0
T29	709518	4542845	222.4	GE 3.0-140	110 dBA	0
T30	710081	4542833	221.7	GE 3.0-140	110 dBA	1
T31a	711090	4542864	222.2	GE 3.0-140	110 dBA	1
T32	711767	4542982	221.3	GE 3.0-140	110 dBA	2
T33	712853	4543517	220.8	GE 3.0-140	110 dBA	0
T34a	712912	4543222	221.0	GE 3.0-140	110 dBA	2
T35	712754	4542844	221.2	GE 3.0-140	110 dBA	0
T36	713246	4542796	221.1	GE 3.0-140	110 dBA	0
T37	709624	4541073	223.1	GE 3.0-140	110 dBA	0
T38	711397	4541724	221.7	GE 3.0-140	110 dBA	1
T40	709304	4546318	221.0	GE 3.0-140	110 dBA	0
T41	710941	4545147	220.5	GE 3.0-140	110 dBA	4
T43a	711809	4541788	222.5	GE 3.0-140	110 dBA	4

Table 4 Modelled Receptor Results

UTM Zone 16 N, NAD83 Meters							
Receptor (P-Participant, NP-Non-Participant)	Easting (m)	Northing (m)	Ground Elevation (m)	Within 250 ft of a roadway	Noise Limit (dBA)	Predicted Noise Level (dBA)	Compliant
NSP-109-NP	711149	4545493	220.8	Yes	47	47	Yes
NSP-41-NP	709014	4547121	221.2	Yes	47	47	Yes
NSP-43-P	709342	4547065	221.0	Yes	47	47	Yes
NSP-603-NP	710605	4543299	221.5	Yes	47	47	Yes
NSP-607-NP	712178	4543216	221.6	Yes	47	47	Yes
NSP-608-NP	710550	4543202	221.4	Yes	47	47	Yes
NSP-611-NP	712223	4543174	221.5	Yes	47	47	Yes
NSP-618-NP	709002	4542983	223.0	Yes	47	47	Yes
NSP-622-NP	710617	4542990	221.2	Yes	47	47	Yes
NSP-628-NP	710557	4542796	221.9	Yes	47	47	Yes
NSP-667-NP	712677	4542385	221.8	Yes	47	47	Yes
NSP-68-NP	710443	4546266	220.0	Yes	47	47	Yes
NSP-80-P	710537	4545952	220.2	Yes	47	47	Yes
NSP-82-P	709886	4545522	221.1	Yes	47	47	Yes
NSP-97-P	711294	4545570	220.7	Yes	47	47	Yes
NSP-112-NP	708298	4545479	221.6	Yes	47	46	Yes
NSP-113-P	710271	4545476	221.1	Yes	47	46	Yes
NSP-279-NP	712799	4543997	221.1	Yes	47	46	Yes
NSP-287-NP	712741	4544001	221.1	Yes	47	46	Yes
NSP-336-NP	712902	4543959	221.5	Yes	47	46	Yes
NSP-346-NP	712613	4543942	221.2	Yes	47	46	Yes
NSP-381-NP	710102	4543907	221.6	Yes	47	46	Yes
NSP-400-NP	709598	4543900	222.1	Yes	47	46	Yes
NSP-473-NP	712376	4543770	221.1	Yes	47	46	Yes
NSP-490-NP	712407	4543740	221.3	Yes	47	46	Yes
NSP-505-NP	712357	4543725	221.1	Yes	47	46	Yes
NSP-517-NP	712306	4543685	221.3	Yes	47	46	Yes
NSP-529-NP	708980	4543690	222.4	Yes	47	46	Yes

NSP-530-NP	712369	4543683	221.1	Yes	47	46	Yes
NSP-558-NP	712309	4543660	221.2	Yes	47	46	Yes
NSP-584-NP	712208	4543544	221.5	Yes	47	46	Yes
NSP-593-NP	712235	4543495	221.3	Yes	47	46	Yes
NSP-594-NP	712165	4543471	221.5	Yes	47	46	Yes
NSP-596-NP	712165	4543413	221.5	Yes	47	46	Yes
NSP-633-NP	709036	4542681	223.2	Yes	47	46	Yes
NSP-638-NP	708556	4542262	222.8	Yes	47	46	Yes
NSP-652-P	711234	4542330	221.9	Yes	47	46	Yes
NSP-672-NP	713404	4542356	221.1	Yes	47	46	Yes
NSP-673-P	709593	4542282	222.6	Yes	47	46	Yes
NSP-677-NP	710047	4542309	222.6	Yes	47	46	Yes
NSP-679-NP	712975	4542315	221.4	Yes	47	46	Yes
NSP-680-NP	709957	4542288	222.4	Yes	47	46	Yes
NSP-724-P	709357	4541404	223.3	Yes	47	46	Yes
NSP-85-NP	707928	4545490	221.2	Yes	47	46	Yes
NSP-87-NP	708915	4545845	221.7	Yes	47	46	Yes
NSP-87-NP	708922	4545786	221.4	Yes	47	46	Yes
NSP-107-NP	708753	4545488	221.7	Yes	47	45	Yes
NSP-110-NP	708453	4545483	222.1	Yes	47	45	Yes
NSP-111-NP	708371	4545481	221.6	Yes	47	45	Yes
NSP-131-NP	712118	4544910	220.9	Yes	47	45	Yes
NSP-226-NP	712903	4544035	221.2	Yes	47	45	Yes
NSP-277-NP	712854	4544015	221.2	Yes	47	45	Yes
NSP-283-NP	712997	4544023	221.4	Yes	47	45	Yes
NSP-285-NP	712549	4543998	221.0	Yes	47	45	Yes
NSP-286-NP	712501	4543988	221.0	Yes	47	45	Yes
NSP-331-NP	713074	4543965	221.1	Yes	47	45	Yes
NSP-349-NP	712538	4543953	221.1	Yes	47	45	Yes
NSP-349-NP	712463	4543947	221.0	Yes	47	45	Yes
NSP-349-NP	712404	4543930	221.2	Yes	47	45	Yes
NSP-349-NP	712482	4543930	221.1	Yes	47	45	Yes
NSP-401-NP	712421	4543901	220.9	Yes	47	45	Yes
NSP-405-NP	712404	4543900	220.9	Yes	47	45	Yes
NSP-417-NP	712453	4543897	221.0	Yes	47	45	Yes
NSP-418-NP	712370	4543881	221.0	Yes	47	45	Yes
NSP-42-NP	707826	4547075	221.7	Yes	47	45	Yes
NSP-429-NP	710523	4543864	221.4	Yes	47	45	Yes
NSP-445-NP	712357	4543817	221.1	Yes	47	45	Yes

NSP-447-NP	712310	4543831	221.2	Yes	47	45	Yes
NSP-448-N2	712266	4543812	221.2	Yes	47	45	Yes
NSP-463-NP	712269	4543791	221.3	Yes	47	45	Yes
NSP-475-N2	712310	4543768	221.2	Yes	47	45	Yes
NSP-475-NP	712307	4543788	221.2	Yes	47	45	Yes
NSP-476-NP	712257	4543764	221.2	Yes	47	45	Yes
NSP-478-NP	712229	4543769	221.5	Yes	47	45	Yes
NSP-489-NP	710531	4543732	221.5	Yes	47	45	Yes
NSP-491-P	712511	4543924	221.0	Yes	47	45	Yes
NSP-494-NP	712307	4543733	221.3	Yes	47	45	Yes
NSP-495-NP	712270	4543730	221.2	Yes	47	45	Yes
NSP-503-NP	712218	4543720	221.2	Yes	47	45	Yes
NSP-503-NP	712205	4543705	221.3	Yes	47	45	Yes
NSP-506-NP	712310	4543708	221.2	Yes	47	45	Yes
NSP-508-N2	712162	4543703	221.4	Yes	47	45	Yes
NSP-519-NP	712272	4543684	221.3	Yes	47	45	Yes
NSP-520-NP	712202	4543682	221.4	Yes	47	45	Yes
NSP-522-NP	712164	4543682	221.5	Yes	47	45	Yes
NSP-534-NP	712205	4543660	221.4	Yes	47	45	Yes
NSP-548-NP	712275	4543658	221.3	Yes	47	45	Yes
NSP-548-NP	712205	4543639	221.5	Yes	47	45	Yes
NSP-548-NP	712205	4543614	221.4	Yes	47	45	Yes
NSP-561-NP	712058	4543613	221.4	Yes	47	45	Yes
NSP-567-NP	712206	4543589	221.4	Yes	47	45	Yes
NSP-567-NP	712206	4543569	221.3	Yes	47	45	Yes
NSP-568-NP	712164	4543594	221.4	Yes	47	45	Yes
NSP-577-NP	712162	4543574	221.4	Yes	47	45	Yes
NSP-580-NP	711997	4543567	221.4	Yes	47	45	Yes
NSP-581-NP	711952	4543568	221.2	Yes	47	45	Yes
NSP-586-NP	712163	4543537	221.4	Yes	47	45	Yes
NSP-586-NP	712168	4543520	221.5	Yes	47	45	Yes
NSP-600-P	711951	4543546	221.3	Yes	47	45	Yes
NSP-600-P	711826	4543521	221.2	Yes	47	45	Yes
NSP-674-NP	710945	4542322	222.2	Yes	47	45	Yes
NSP-675-NP	713550	4542353	221.0	Yes	47	45	Yes
NSP-678-NP	709351	4542290	223.0	Yes	47	45	Yes
NSP-687-NP	708734	4542202	222.9	Yes	47	45	Yes
NSP-692-NP	712560	4542301	222.1	Yes	47	45	Yes
NSP-754-NP	708280	4540622	223.5	Yes	47	45	Yes

NSP-92-NP	708937	4545717	221.3	Yes	47	45	Yes
NSP-99-NP	708914	4545493	221.7	Yes	47	45	Yes
NSP-826-NP	712482	4543930	221.1	Yes	47	45	Yes
NSP-827-NP	712463	4543947	221.0	Yes	47	45	Yes
NSP-828-NP	712404	4543930	221.2	Yes	47	45	Yes
NSP-832-NP	711826	4543521	221.2	Yes	47	45	Yes
NSP-833-NP	712205	4543705	221.3	Yes	47	45	Yes
NSP-834-NP	712205	4543614	221.4	Yes	47	45	Yes
NSP-835-NP	712205	4543639	221.5	Yes	47	45	Yes
NSP-836-NP	712206	4543569	221.3	Yes	47	45	Yes
NSP-837-NP	712168	4543520	221.5	Yes	47	45	Yes
NSP-121-NP	712171	4545200	221.3	Yes	47	44	Yes
NSP-123-NP	712168	4545145	220.8	Yes	47	44	Yes
NSP-13-NP	708362	4548648	221.2	Yes	47	44	Yes
NSP-136-NP	710494	4544685	221.3	Yes	47	44	Yes
NSP-137-P	712189	4544725	220.8	Yes	47	44	Yes
NSP-138-NP	708950	4544631	221.9	Yes	47	44	Yes
NSP-237-NP	712395	4544090	221.0	Yes	47	44	Yes
NSP-250-NP	712500	4544078	221.5	Yes	47	44	Yes
NSP-256-NP	712367	4544051	220.8	Yes	47	44	Yes
NSP-257-NP	712296	4544048	220.6	Yes	47	44	Yes
NSP-258-NP	710526	4544021	221.4	Yes	47	44	Yes
NSP-261-NP	712454	4544052	221.1	Yes	47	44	Yes
NSP-265-NP	712424	4544049	221.0	Yes	47	44	Yes
NSP-273-NP	712354	4544029	220.7	Yes	47	44	Yes
NSP-274-NP	712296	4544026	220.8	Yes	47	44	Yes
NSP-298-NP	712439	4543987	221.0	Yes	47	44	Yes
NSP-300-NP	712424	4543985	220.9	Yes	47	44	Yes
NSP-301-NP	712401	4544003	220.9	Yes	47	44	Yes
NSP-315-NP	712365	4543999	220.8	Yes	47	44	Yes
NSP-317-NP	712322	4543982	221.0	Yes	47	44	Yes
NSP-318-NP	712301	4543981	221.2	Yes	47	44	Yes
NSP-339-NP	710602	4543937	221.4	Yes	47	44	Yes
NSP-383-NP	712092	4543911	221.6	Yes	47	44	Yes
NSP-403-NP	712310	4543901	221.3	Yes	47	44	Yes
NSP-408-NP	712094	4543893	221.7	Yes	47	44	Yes
NSP-419-NP	712307	4543874	221.1	Yes	47	44	Yes
NSP-420-N2	712251	4543872	221.4	Yes	47	44	Yes
NSP-420-NP	712257	4543891	221.2	Yes	47	44	Yes

NSP-423-NP	712149	4543871	221.3	Yes	47	44	Yes
NSP-425-NP	712090	4543867	221.3	Yes	47	44	Yes
NSP-428-NP	712052	4543863	221.4	Yes	47	44	Yes
NSP-441-NP	712053	4543828	221.4	Yes	47	44	Yes
NSP-442-NP	711998	4543824	221.4	Yes	47	44	Yes
NSP-443-NP	711946	4543821	221.3	Yes	47	44	Yes
NSP-448-NP	712256	4543824	221.2	Yes	47	44	Yes
NSP-449-NP	708914	4543813	222.3	Yes	47	44	Yes
NSP-450-NP	712214	4543813	221.3	Yes	47	44	Yes
NSP-452-NP	712149	4543814	221.5	Yes	47	44	Yes
NSP-454-NP	712091	4543825	221.3	Yes	47	44	Yes
NSP-455-NP	708766	4543808	222.4	Yes	47	44	Yes
NSP-456-NP	712051	4543804	221.3	Yes	47	44	Yes
NSP-457-NP	711983	4543803	221.4	Yes	47	44	Yes
NSP-460-NP	711842	4543796	221.3	Yes	47	44	Yes
NSP-467-NP	712092	4543783	221.4	Yes	47	44	Yes
NSP-469-NP	711988	4543778	221.4	Yes	47	44	Yes
NSP-478-N2	712201	4543763	221.4	Yes	47	44	Yes
NSP-479-N2	712155	4543763	221.6	Yes	47	44	Yes
NSP-479-NP	712159	4543779	221.6	Yes	47	44	Yes
NSP-480-NP	712097	4543758	221.3	Yes	47	44	Yes
NSP-482-N2	712047	4543758	221.4	Yes	47	44	Yes
NSP-482-NP	712054	4543778	221.4	Yes	47	44	Yes
NSP-484-NP	711934	4543774	221.3	Yes	47	44	Yes
NSP-486-NP	711851	4543753	221.1	Yes	47	44	Yes
NSP-487-NP	711784	4543753	221.0	Yes	47	44	Yes
NSP-500-NP	712057	4543720	221.4	Yes	47	44	Yes
NSP-502-NP	712008	4543720	221.4	Yes	47	44	Yes
NSP-508-NP	712158	4543720	221.4	Yes	47	44	Yes
NSP-509-NP	711817	4543724	221.1	Yes	47	44	Yes
NSP-509-NP	711838	4543718	221.2	Yes	47	44	Yes
NSP-510-NP	712113	4543719	221.5	Yes	47	44	Yes
NSP-521-NP	711893	4543669	221.4	Yes	47	44	Yes
NSP-528-NP	711947	4543689	221.4	Yes	47	44	Yes
NSP-538-NP	712051	4543656	221.5	Yes	47	44	Yes
NSP-539-NP	711999	4543651	221.4	Yes	47	44	Yes
NSP-541-NP	711952	4543648	221.4	Yes	47	44	Yes
NSP-544-NP	711823	4543654	221.0	Yes	47	44	Yes
NSP-555-NP	711995	4543617	221.5	Yes	47	44	Yes

NSP-564-NP	711953	4543609	221.3	Yes	47	44	Yes
NSP-565-NP	711899	4543601	221.7	Yes	47	44	Yes
NSP-572-NP	711795	4543570	220.9	Yes	47	44	Yes
NSP-606-NP	713780	4543223	221.1	Yes	47	44	Yes
NSP-684-NP	710396	4542243	222.6	Yes	47	44	Yes
NSP-689-NP	708964	4542167	223.0	Yes	47	44	Yes
NSP-57-P	709840	4547075	220.9	Yes	47	44	Yes
NSP-814-NP	708806	4549116	221.0	Yes	47	44	Yes
NSP-817-NP	707587	4546997	221.4	Yes	47	44	Yes
NSP-819-NP	707631	4540595	224.0	Yes	47	44	Yes
NSP-831-NP	711838	4543718	221.2	Yes	47	44	Yes
NSP-145-NP	708893	4544472	222.0	Yes	47	43	Yes
NSP-157-NP	711111	4543951	221.2	Yes	47	43	Yes
NSP-159-NP	708972	4544296	222.0	Yes	47	43	Yes
NSP-173-NP	712510	4544212	221.1	Yes	47	43	Yes
NSP-175-NP	712486	4544195	221.0	Yes	47	43	Yes
NSP-176-NP	712455	4544215	221.1	Yes	47	43	Yes
NSP-179-NP	712404	4544210	221.2	Yes	47	43	Yes
NSP-180-NP	712359	4544218	221.1	Yes	47	43	Yes
NSP-181-NP	712334	4544193	221.2	Yes	47	43	Yes
NSP-182-NP	712141	4544175	220.9	Yes	47	43	Yes
NSP-183-NP	712316	4544199	221.1	Yes	47	43	Yes
NSP-184-NP	712290	4544195	221.1	Yes	47	43	Yes
NSP-185-NP	712259	4544201	221.1	Yes	47	43	Yes
NSP-186-NP	712233	4544190	220.8	Yes	47	43	Yes
NSP-188-NP	712354	4544157	221.1	Yes	47	43	Yes
NSP-189-NP	712296	4544156	221.1	Yes	47	43	Yes
NSP-190-NP	712247	4544153	220.9	Yes	47	43	Yes
NSP-193-NP	712450	4544159	221.1	Yes	47	43	Yes
NSP-193-NP	712432	4544154	221.1	Yes	47	43	Yes
NSP-194-NP	712146	4544153	221.1	Yes	47	43	Yes
NSP-197-NP	712395	4544152	221.0	Yes	47	43	Yes
NSP-199-NP	712042	4544143	220.4	Yes	47	43	Yes
NSP-204-NP	712498	4544133	221.7	Yes	47	43	Yes
NSP-205-NP	712356	4544135	221.1	Yes	47	43	Yes
NSP-208-NP	710807	4543983	221.5	Yes	47	43	Yes
NSP-209-NP	712254	4544134	221.0	Yes	47	43	Yes
NSP-213-NP	712148	4544131	220.8	Yes	47	43	Yes
NSP-215-NP	712092	4544134	221.0	Yes	47	43	Yes

NSP-216-NP	712039	4544120	221.0	Yes	47	43	Yes
NSP-219-NP	712395	4544111	221.0	Yes	47	43	Yes
NSP-220-NP	712366	4544113	221.1	Yes	47	43	Yes
NSP-221-NP	712295	4544116	221.0	Yes	47	43	Yes
NSP-224-NP	712259	4544111	220.7	Yes	47	43	Yes
NSP-225-NP	712189	4544107	220.7	Yes	47	43	Yes
NSP-229-NP	712149	4544107	221.0	Yes	47	43	Yes
NSP-231-NP	712043	4544103	221.2	Yes	47	43	Yes
NSP-238-NP	712355	4544090	220.9	Yes	47	43	Yes
NSP-239-NP	712298	4544090	220.9	Yes	47	43	Yes
NSP-240-NP	712257	4544082	220.4	Yes	47	43	Yes
NSP-241-NP	712193	4544086	220.9	Yes	47	43	Yes
NSP-243-NP	712140	4544086	221.0	Yes	47	43	Yes
NSP-245-NP	712081	4544086	221.3	Yes	47	43	Yes
NSP-246-NP	712042	4544077	221.2	Yes	47	43	Yes
NSP-247-NP	711978	4544078	221.0	Yes	47	43	Yes
NSP-247-NP	712001	4544075	221.1	Yes	47	43	Yes
NSP-263-NP	712139	4544041	221.1	Yes	47	43	Yes
NSP-267-NP	712086	4544041	221.2	Yes	47	43	Yes
NSP-269-NP	712047	4544039	221.2	Yes	47	43	Yes
NSP-275-P	711352	4543957	221.3	Yes	47	43	Yes
NSP-281-NP	712083	4544024	221.3	Yes	47	43	Yes
NSP-282-NP	712042	4544016	221.3	Yes	47	43	Yes
NSP-306-NP	712019	4543992	221.4	Yes	47	43	Yes
NSP-309-NP	711510	4543962	220.8	Yes	47	43	Yes
NSP-310-NP	711848	4543978	221.1	Yes	47	43	Yes
NSP-311-NP	711804	4543978	221.0	Yes	47	43	Yes
NSP-314-NP	713417	4543977	221.2	Yes	47	43	Yes
NSP-324-NP	712109	4543976	221.2	Yes	47	43	Yes
NSP-333-NP	711762	4543962	220.8	Yes	47	43	Yes
NSP-340-NP	710876	4543954	221.4	Yes	47	43	Yes
NSP-390-NP	711379	4543906	221.2	Yes	47	43	Yes
NSP-397-NP	711818	4543927	221.1	Yes	47	43	Yes
NSP-398-NP	711763	4543911	220.8	Yes	47	43	Yes
NSP-398-NP	711727	4543899	220.6	Yes	47	43	Yes
NSP-414-NP	710914	4543891	221.4	Yes	47	43	Yes
NSP-416-NP	711882	4543884	221.2	Yes	47	43	Yes
NSP-422-NP	711941	4543868	221.2	Yes	47	43	Yes
NSP-424-NP	708471	4543874	222.4	Yes	47	43	Yes

NSP-427-NP	711830	4543870	221.1	Yes	47	43	Yes
NSP-432-NP	711787	4543862	221.1	Yes	47	43	Yes
NSP-444-NP	711885	4543819	221.4	Yes	47	43	Yes
NSP-446-NP	711830	4543824	221.4	Yes	47	43	Yes
NSP-453-NP	711792	4543830	221.2	Yes	47	43	Yes
NSP-5-NP	709417	4548672	220.8	Yes	47	43	Yes
NSP-55-NP	710488	4546863	220.5	Yes	47	43	Yes
NSP-612-NP	713865	4543167	220.8	Yes	47	43	Yes
NSP-616-NP	713848	4543042	221.0	Yes	47	43	Yes
NSP-683-NP	713743	4542351	221.2	Yes	47	43	Yes
NSP-7-P	709213	4548680	220.9	Yes	47	43	Yes
NSP-742-NP	708503	4540641	224.1	Yes	47	43	Yes
NSP-784-NP	709078	4539446	224.1	Yes	47	43	Yes
NSP-89-NP	712094	4545774	220.7	Yes	47	43	Yes
NSP-818-NP	707358	4543598	222.8	Yes	47	43	Yes
NSP-821-NP	709151	4539170	224.3	Yes	47	43	Yes
NSP-829-NP	712432	4544154	221.1	Yes	47	43	Yes
NSP-830-NP	712001	4544075	221.1	Yes	47	43	Yes
NSP-838-NP	711727	4543899	220.6	Yes	47	43	Yes
NSP-106-P	712238	4545538	220.7	Yes	47	42	Yes
NSP-589-NP	713846	4543506	220.9	Yes	47	42	Yes
NSP-682-NP	713801	4542330	221.0	Yes	47	42	Yes
NSP-716-NP	710595	4541590	222.9	Yes	47	42	Yes
NSP-723-NP	710599	4541455	222.5	Yes	47	42	Yes
NSP-733-NP	710579	4541289	222.6	Yes	47	42	Yes
NSP-755-NP	710172	4540632	223.3	Yes	47	42	Yes
NSP-77-NP	712083	4546052	220.6	Yes	47	42	Yes
NSP-779-NP	709060	4540009	223.8	Yes	47	42	Yes
NSP-815-NP	707246	4548010	221.5	Yes	47	42	Yes
NSP-820-NP	707427	4541143	223.9	Yes	47	42	Yes
NSP-737-NP	711919	4541156	222.5	No	42	42	Yes
NSP-141-NP	712683	4544508	220.5	Yes	47	41	Yes
NSP-731-P	712317	4541338	222.4	Yes	47	41	Yes
NSP-741-NP	710683	4541073	222.1	Yes	47	41	Yes
NSP-774-NP	709105	4540086	223.7	Yes	47	41	Yes
NSP-811-NP	710372	4548770	220.4	Yes	47	41	Yes
NSP-323-NP	713841	4543975	221.5	Yes	47	40	Yes
NSP-67-P	712120	4546400	220.0	Yes	47	40	Yes
NSP-693-NP	713807	4542011	221.2	Yes	47	40	Yes

NSP-698-NP	713886	4542063	220.9	Yes	47	40	Yes
NSP-753-NP	710696	4540700	222.9	Yes	47	40	Yes
NSP-96-NP	712527	4545611	220.5	Yes	47	40	Yes
NSP-812-NP	709917	4550332	219.9	Yes	47	40	Yes
NSP-187-NP	713727	4544165	220.9	Yes	47	39	Yes
NSP-320-NP	713960	4543989	221.2	Yes	47	39	Yes
NSP-62-NP	712055	4546572	218.6	Yes	47	39	Yes
NSP-745-NP	712290	4541028	222.1	Yes	47	39	Yes
NSP-816-NP	707204	4548819	220.4	Yes	47	39	Yes
NSP-100-NP	712950	4545565	220.3	Yes	47	38	Yes
NSP-554-NP	714384	4543262	221.1	Yes	47	38	Yes
NSP-664-NP	714266	4542429	221.3	Yes	47	38	Yes
NSP-751-P	712250	4540747	222.2	Yes	47	38	Yes
NSP-101-NP	713027	4545563	220.2	Yes	47	37	Yes
NSP-202-NP	714247	4544062	221.3	Yes	47	37	Yes
NSP-656-NP	714497	4542489	221.3	Yes	47	37	Yes
NSP-717-NP	713837	4541642	220.7	Yes	47	37	Yes
NSP-758-NP	712284	4540538	222.4	Yes	47	37	Yes
NSP-810-NP	710976	4548813	220.6	Yes	47	37	Yes
NSP-822-NP	710661	4539773	222.8	Yes	47	37	Yes
NSP-45-NP	711976	4546977	219.4	No	42	37	Yes
NSP-649-NP	714559	4542540	220.5	No	42	37	Yes
NSP-729-NP	713552	4541273	220.6	No	42	37	Yes
NSP-1-P	711421	4548741	220.0	Yes	47	36	Yes
NSP-124-NP	713717	4545217	220.0	Yes	47	36	Yes
NSP-200-NP	714400	4544064	221.1	Yes	47	36	Yes
NSP-37-NP	712043	4547216	219.7	Yes	47	36	Yes
NSP-38-NP	712260	4547224	219.4	Yes	47	36	Yes
NSP-728-NP	713902	4541353	221.5	Yes	47	36	Yes
NSP-752-NP	712884	4540716	221.8	Yes	47	36	Yes
NSP-98-NP	713256	4545570	219.9	Yes	47	36	Yes
NSP-823-NP	710750	4539531	223.1	Yes	47	36	Yes
NSP-824-NP	710480	4539060	223.2	Yes	47	36	Yes
NSP-102-NP	713662	4545617	218.5	Yes	47	35	Yes
NSP-103-NP	713604	4545568	217.5	Yes	47	35	Yes
NSP-34-NP	712583	4547255	219.7	Yes	47	35	Yes
NSP-595-NP	714926	4543270	220.8	Yes	47	35	Yes
NSP-681-NP	714847	4542354	220.4	Yes	47	35	Yes
NSP-704-NP	714599	4541961	220.6	Yes	47	35	Yes

NSP-720-NP	714375	4541572	221.7	Yes	47	35	Yes
NSP-803-NP	714610	4544015	220.9	Yes	47	35	Yes
NSP-118-NP	713653	4545430	219.5	No	42	35	Yes
NSP-93-NP	713482	4545706	219.7	No	42	35	Yes
NSP-33-NP	712651	4547259	219.7	Yes	47	34	Yes
NSP-650-NP	715006	4542454	221.1	Yes	47	34	Yes
NSP-70-NP	713694	4546054	219.9	Yes	47	34	Yes
NSP-797-NP	713767	4545697	218.4	Yes	47	34	Yes
NSP-799-NP	713854	4545557	219.9	Yes	47	34	Yes
NSP-801-NP	714952	4544083	220.8	Yes	47	34	Yes
NSP-802-NP	714819	4544026	220.7	Yes	47	34	Yes
NSP-807-NP	713926	4540730	222.6	Yes	47	34	Yes
NSP-785-NP	713857	4545976	219.9	No	42	34	Yes
NSP-796-NP	713764	4546720	219.9	Yes	47	33	Yes
NSP-798-NP	714132	4545663	220.2	Yes	47	33	Yes
NSP-800-NP	715413	4543077	219.8	Yes	47	33	Yes
NSP-805-NP	714707	4541459	221.5	Yes	47	33	Yes
NSP-806-NP	714374	4540827	221.4	Yes	47	33	Yes
NSP-825-NP	712437	4539371	223.5	Yes	47	33	Yes
NSP-804-NP	715450	4541834	221.5	Yes	47	32	Yes
NSP-813-NP	711927	4550398	219.9	Yes	47	32	Yes
NSP-18-NP	713614	4548033	219.1	Yes	47	31	Yes
NSP-793-NP	713697	4548426	219.4	Yes	47	31	Yes
NSP-795-NP	714337	4547232	217.6	Yes	47	31	Yes
NSP-808-NP	713403	4539182	223.1	Yes	47	31	Yes
NSP-794-NP	715314	4545997	219.9	Yes	47	30	Yes
NSP-809-NP	713845	4539182	222.6	Yes	47	30	Yes
NSP-787-NP	714250	4548946	219.6	Yes	47	29	Yes
NSP-791-NP	714510	4548863	219.1	Yes	47	29	Yes
NSP-792-NP	714285	4548839	219.1	Yes	47	29	Yes
NSP-788-NP	714921	4548954	219.4	Yes	47	28	Yes
NSP-789-NP	715093	4548959	219.4	Yes	47	28	Yes
NSP-790-NP	715178	4548962	219.3	Yes	47	28	Yes
NSP-786-NP	715205	4549140	219.2	Yes	47	27	Yes

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Summary: Application - Part 5 of 7 Attachment C – Sound Study Addendum Fourth Supplement to Application electronically filed by Christine M.T. Pirik on behalf of Grover Hill Wind, LLC