

## 第5章 低周波音

### 5.1 低周波音現地調査結果（対象事業実施区域及びその周辺）

対象事業実施区域及びその周辺における低周波音の現地調査結果を、表 5.1-1～3 に示す。

表5.1-1 低周波音現地調査結果(対象事業実施区域及びその周辺)(パワー平均値:Leq)

測定地点:地点①a 対象事業実施区域(バラダ側敷地境界)

測定日 :平成25年11月18日(月)～11月19日(火)

単位:デシベル

測定時間	G特性 音圧レベル	1/3オクターブバンド中心周波数(Hz)																				
		AP	1	1.25	1.6	2	2.5	3.15	4	5	6.3	8	10	12.5	16	20	25	31.5	40	50	63	80
12～13	60.6	76.9	72.5	70.2	69.2	65.4	62.7	61.3	58.8	56.6	53.6	50.4	48.5	47.0	47.3	46.2	46.9	48.9	51.0	54.5	70.0	57.2
13～14	59.3	75.8	72.1	70.1	68.2	65.2	63.3	60.5	58.7	56.8	54.0	51.8	49.0	47.0	45.6	44.5	45.2	45.1	45.7	46.7	47.1	47.1
14～15	58.9	76.2	71.6	71.2	67.7	66.3	63.3	60.9	58.1	56.1	53.4	50.8	48.2	46.2	45.3	44.3	44.7	44.8	47.2	50.7	49.1	50.4
15～16	58.2	75.6	71.4	69.7	68.0	66.1	63.6	60.8	58.4	56.3	53.8	50.5	47.7	46.0	44.2	43.2	43.7	44.4	45.9	49.1	45.4	45.7
16～17	57.6	69.5	62.4	60.1	58.6	57.2	54.8	53.1	51.0	48.4	44.8	42.6	41.3	41.9	43.5	43.5	48.5	46.6	52.2	54.1	65.2	56.0
17～18	55.1	61.9	54.2	53.9	52.5	51.4	49.9	48.2	47.8	46.3	42.5	40.3	39.1	39.7	40.8	43.0	41.9	42.9	43.6	44.0	43.2	41.6
18～19	54.9	68.1	60.6	61.1	59.9	58.1	55.9	54.1	52.5	49.9	47.6	44.4	42.7	41.3	40.7	40.1	43.8	39.3	40.4	40.7	41.4	39.8
19～20	54.9	58.9	52.1	49.3	47.9	47.1	45.3	44.9	43.6	41.9	39.7	38.7	39.0	40.4	41.4	41.2	44.0	40.3	41.9	42.0	41.4	40.4
20～21	53.8	67.4	61.5	60.5	58.7	56.4	54.1	52.9	50.7	48.7	46.1	43.3	41.8	40.5	39.8	38.7	42.9	38.1	38.4	39.6	39.8	38.6
21～22	53.8	63.6	56.8	55.9	53.7	52.9	51.2	49.7	47.7	45.3	43.3	41.4	39.8	40.5	39.9	39.1	43.3	38.3	38.1	39.6	40.0	38.0
22～23	52.6	62.4	55.2	54.2	53.3	51.8	50.1	48.9	47.0	45.0	42.4	41.0	39.3	39.4	39.1	37.9	41.6	37.5	37.7	38.2	39.5	37.0
23～0	52.5	66.3	58.9	59.2	57.1	55.6	54.1	52.2	50.6	48.5	45.9	43.5	41.6	40.4	39.1	37.6	38.9	37.0	37.4	38.4	38.9	36.1
0～1	53.6	67.2	62.2	60.3	58.4	56.3	54.1	52.6	50.7	48.0	45.3	43.0	41.3	40.6	39.7	38.9	42.3	37.0	38.7	39.4	38.8	36.7
1～2	56.7	73.9	69.7	68.6	66.5	65.0	62.3	59.7	58.0	55.2	52.8	49.6	47.4	44.5	42.5	40.7	43.2	39.1	38.8	37.7	38.1	36.4
2～3	56.0	74.3	69.3	67.0	65.7	63.4	61.8	59.9	57.1	54.1	51.1	48.3	44.9	43.4	42.3	40.7	41.9	39.6	39.6	39.5	40.4	37.7
3～4	53.7	67.4	60.7	59.6	58.8	56.8	54.8	52.7	50.5	48.8	45.3	43.0	41.4	40.9	40.8	39.3	39.9	38.5	38.6	42.2	43.3	37.7
4～5	54.9	69.4	63.1	61.2	59.8	58.7	57.1	55.0	52.6	50.0	47.4	44.7	42.6	42.5	41.8	40.5	40.6	39.0	39.2	44.6	40.7	38.5
5～6	62.5	81.0	74.7	74.9	74.0	72.5	70.1	68.5	65.5	63.4	60.2	57.2	54.1	50.9	47.8	45.5	44.3	42.1	41.8	41.3	41.6	40.8
6～7	57.2	78.3	72.8	72.9	70.9	69.3	66.4	63.5	59.8	56.0	52.3	48.9	45.3	43.8	42.8	42.5	43.3	44.1	42.9	42.4	42.2	41.8
7～8	61.2	81.1	76.5	75.3	73.9	71.5	69.5	66.6	64.3	61.4	57.7	53.9	51.2	48.7	46.6	45.8	45.2	45.4	46.4	46.5	45.7	45.6
8～9	59.2	73.0	66.7	65.5	64.2	62.7	59.7	58.2	55.8	53.9	52.3	50.4	47.7	46.9	45.6	44.5	46.0	45.4	47.0	47.3	48.1	45.5
9～10	58.5	72.3	65.1	64.9	64.5	61.2	59.2	56.9	54.4	52.3	49.6	47.0	45.2	44.9	46.6	43.9	44.4	46.5	48.1	49.6	50.7	47.5
10～11	61.0	78.9	72.7	72.1	69.9	69.1	68.1	65.3	62.4	59.0	55.6	52.2	48.6	46.5	46.0	46.0	50.8	46.7	47.1	54.0	63.6	53.6
11～12	62.0	79.6	74.3	72.9	71.5	68.9	67.5	64.4	62.0	58.0	54.3	51.2	48.3	46.9	46.2	47.3	54.4	50.0	51.2	59.5	60.8	49.2
平均	58	75	70	69	67	65	63	61	58	56	53	50	47	45	44	43	46	44	46	50	59	48
昼間	59	76	71	70	68	66	64	61	58	56	52	49	47	45	45	44	47	45	47	51	60	50
夜間	57	74	68	68	67	65	63	61	58	56	53	50	47	45	43	41	42	39	39	41	40	38

注) 平均値はパワー平均値である。

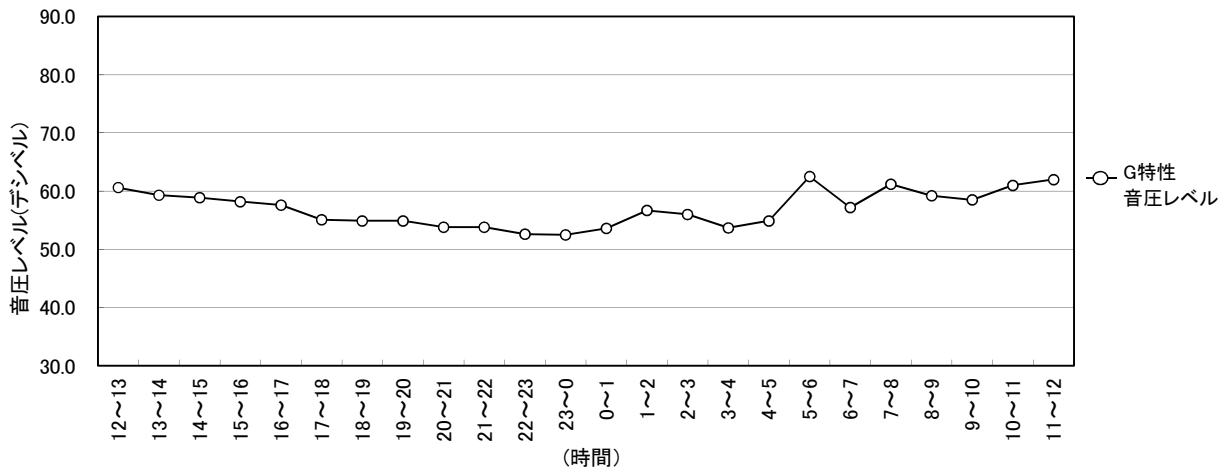
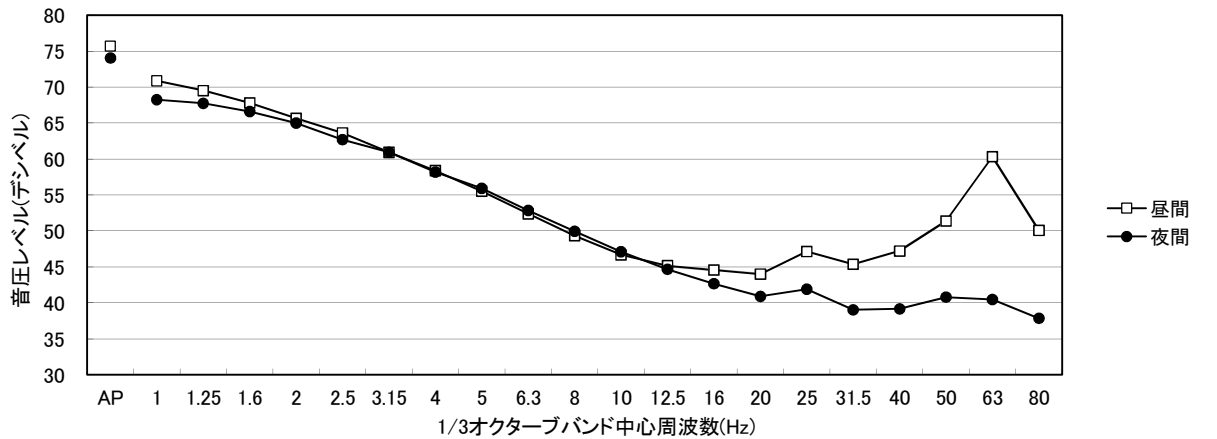


表5.1-2 低周波音現地調査結果(対象事業実施区域及びその周辺) (パワー平均値:Leq)

測定地点:地点① b対象事業実施区域(面替側敷地境界)

測定日 :平成25年11月18日(月) ~ 11月19日(火)

単位:デシベル

測定時間	G特性 音圧レベル	1/3オクターブバンド中心周波数(Hz)																				
		AP	1	1.25	1.6	2	2.5	3.15	4	5	6.3	8	10	12.5	16	20	25	31.5	40	50	63	80
12~13	56.4	71.2	64.7	63.8	62.3	60.3	58.2	56.3	54.0	51.4	48.9	46.5	43.9	42.5	43.2	42.7	42.2	43.5	44.7	42.3	45.6	39.3
13~14	57.1	70.1	63.9	63.6	61.5	59.4	57.8	55.6	54.2	50.8	48.5	46.4	43.6	42.7	43.4	43.0	45.6	46.5	47.8	52.9	44.2	42.1
14~15	57.8	71.9	67.1	66.1	64.7	62.2	59.8	57.5	55.4	52.5	50.7	48.0	45.5	44.3	44.6	44.0	44.2	44.7	46.8	51.7	47.7	43.4
15~16	56.7	71.8	65.9	66.1	65.3	62.7	60.8	58.2	55.4	52.8	50.4	47.6	44.8	43.0	43.3	42.5	42.8	43.6	47.1	53.5	42.7	40.2
16~17	57.0	68.1	63.9	63.0	60.6	57.6	55.7	54.0	51.6	48.7	45.9	43.4	41.9	41.3	43.0	43.3	47.1	44.2	48.6	48.7	46.5	40.8
17~18	54.6	59.3	51.1	50.2	49.6	47.8	47.0	44.4	44.8	43.5	39.8	38.3	37.5	38.8	41.5	42.0	41.9	43.3	42.3	43.7	41.9	36.1
18~19	52.4	61.4	53.8	53.2	52.2	50.7	49.3	47.9	44.4	42.2	40.5	38.5	36.7	37.1	39.2	39.1	40.9	39.2	40.0	40.3	39.2	34.4
19~20	52.9	54.6	45.1	45.2	43.4	42.3	41.1	40.7	39.5	37.6	36.5	35.4	35.2	37.5	40.2	40.0	40.4	40.4	41.2	40.9	38.3	33.9
20~21	51.6	64.2	57.7	56.8	55.3	54.1	51.3	49.2	46.5	44.4	41.9	39.6	37.3	36.9	38.4	38.2	38.9	37.9	38.0	38.4	36.3	32.1
21~22	51.6	57.8	50.1	49.4	48.1	45.7	43.9	43.2	40.9	39.1	37.6	36.5	35.1	36.2	38.8	38.6	39.1	37.8	37.5	37.7	35.5	30.5
22~23	51.0	56.4	48.6	48.6	46.3	45.3	43.2	42.2	40.1	38.6	36.8	35.4	34.5	36.1	38.5	37.7	38.1	36.5	36.8	36.9	35.6	31.0
23~0	50.5	56.5	48.7	48.3	47.3	45.0	42.8	41.8	40.1	38.6	37.1	35.5	34.7	36.2	38.2	37.3	36.4	37.5	37.1	37.5	35.3	30.5
0~1	52.6	66.9	60.3	59.6	58.8	56.5	54.5	52.6	50.1	47.5	44.9	42.5	39.8	39.1	39.4	38.5	39.1	36.8	37.0	38.3	36.1	31.7
1~2	52.6	67.9	62.1	61.0	58.5	58.2	55.0	52.7	51.0	48.2	45.7	42.9	40.6	39.2	39.3	38.4	38.7	37.6	38.4	37.3	35.0	31.8
2~3	53.5	67.0	60.3	59.0	57.9	55.9	54.2	52.2	49.1	46.8	44.3	41.9	39.8	39.6	40.6	40.0	39.7	39.2	38.8	38.4	35.4	34.1
3~4	52.4	58.8	51.2	50.6	49.2	46.8	45.2	44.1	42.7	40.0	38.4	36.6	36.2	37.7	40.3	39.1	38.2	38.7	37.2	38.4	39.8	31.9
4~5	53.9	66.8	60.1	59.3	58.4	55.3	54.5	52.5	50.7	47.9	45.7	42.8	40.5	39.9	41.1	40.3	39.4	39.0	37.9	39.8	35.3	32.8
5~6	55.4	69.6	65.9	65.0	62.7	60.2	58.2	55.6	52.6	50.3	47.5	45.0	42.7	41.6	42.2	41.8	41.6	40.5	39.3	39.0	37.7	35.7
6~7	55.4	70.5	67.4	65.4	63.8	60.9	58.6	55.9	53.3	50.5	47.9	45.2	42.6	41.5	42.1	41.7	42.1	42.7	40.5	40.2	37.7	35.4
7~8	57.6	72.1	69.6	67.0	65.1	62.6	60.4	58.0	55.3	52.8	50.1	47.9	45.3	43.7	44.2	44.0	44.4	44.1	44.5	45.6	44.6	39.4
8~9	57.5	68.9	62.3	60.8	60.1	58.4	56.9	54.7	52.3	51.1	48.5	46.9	44.6	43.6	44.1	44.0	44.9	44.4	45.0	46.6	46.1	40.1
9~10	55.6	66.1	58.3	58.3	56.3	55.6	53.3	52.0	48.9	47.3	45.4	43.5	41.7	40.9	42.2	42.3	42.8	43.5	47.3	45.6	45.2	38.8
10~11	56.4	69.1	61.7	61.1	59.8	58.2	56.8	54.7	53.0	50.0	47.8	45.6	43.1	42.9	42.9	42.8	43.4	43.1	45.6	48.9	46.3	40.1
11~12	58.0	70.9	64.5	64.2	63.0	61.3	59.2	56.3	53.7	51.9	49.2	47.0	45.4	43.8	44.4	44.8	45.1	44.9	45.0	46.4	47.9	40.6
平均	55	68	63	62	60	58	56	54	51	49	47	44	42	41	42	42	42	42	44	46	43	38
昼間	56	69	64	63	61	59	57	55	52	50	47	45	43	42	43	42	43	43	45	48	44	39
夜間	53	66	60	60	58	56	54	52	49	47	44	42	39	39	40	39	39	38	38	38	37	33

注) 平均値はパワー平均値である。

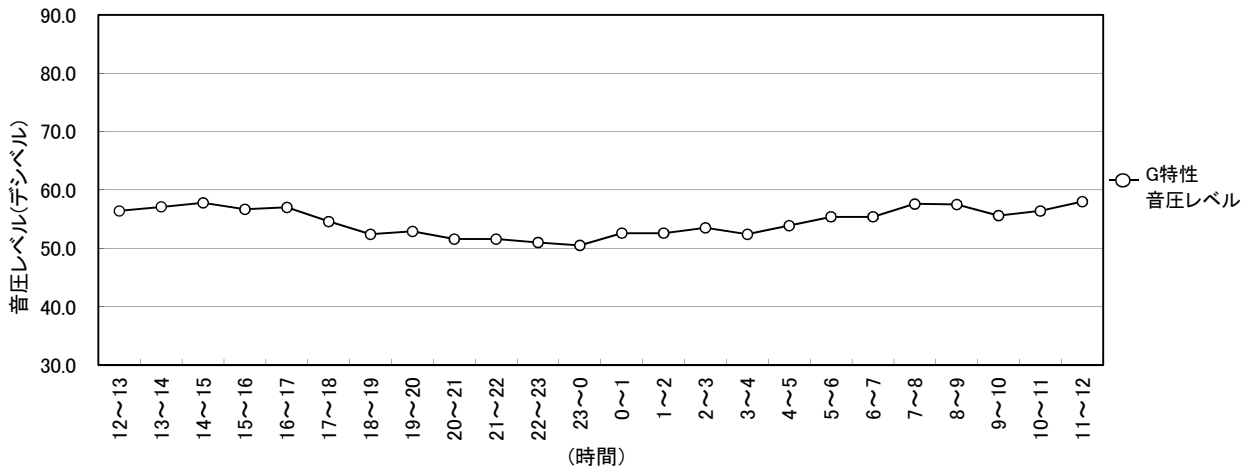
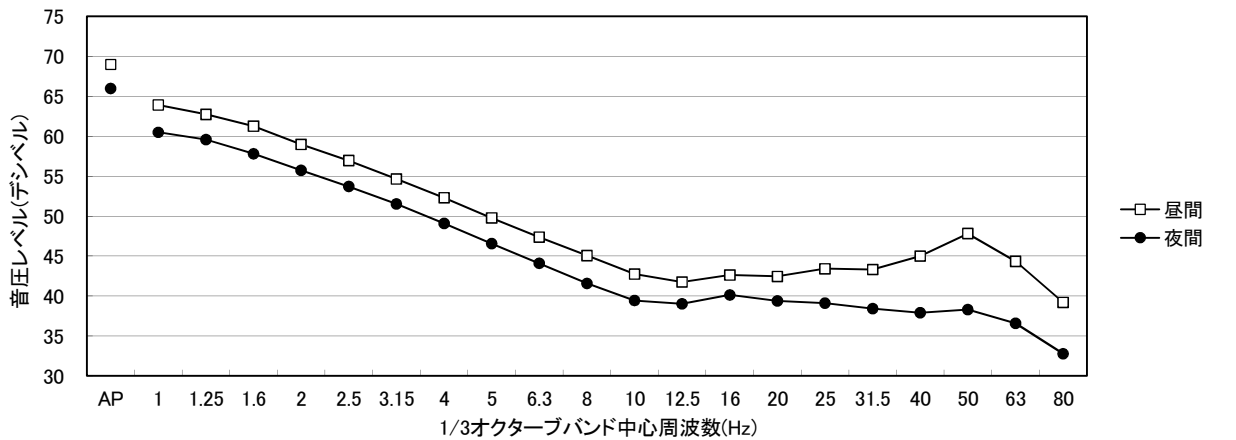


表5.1-3 低周波音現地調査結果(対象事業実施区域及びその周辺) (パワー平均値:Leq)

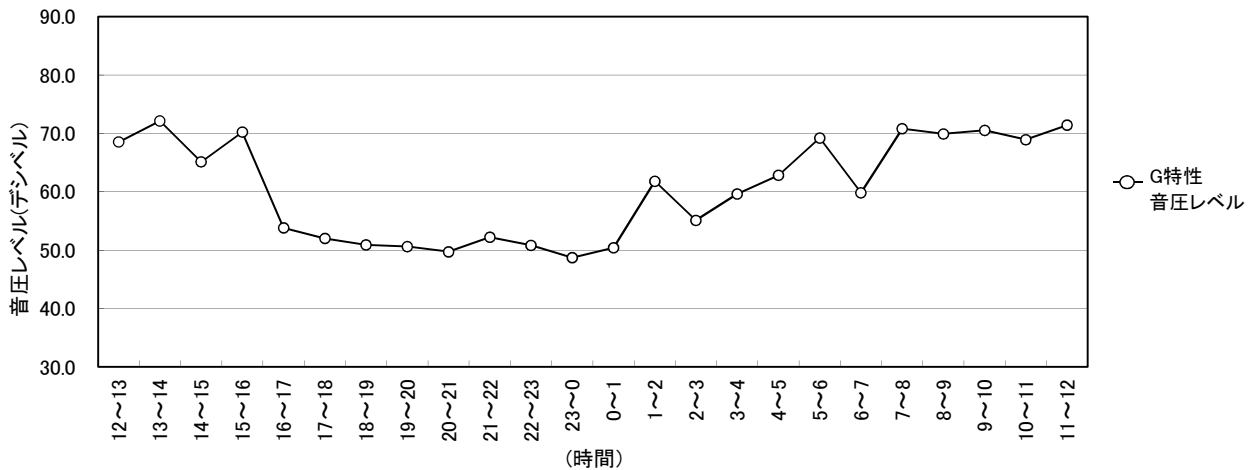
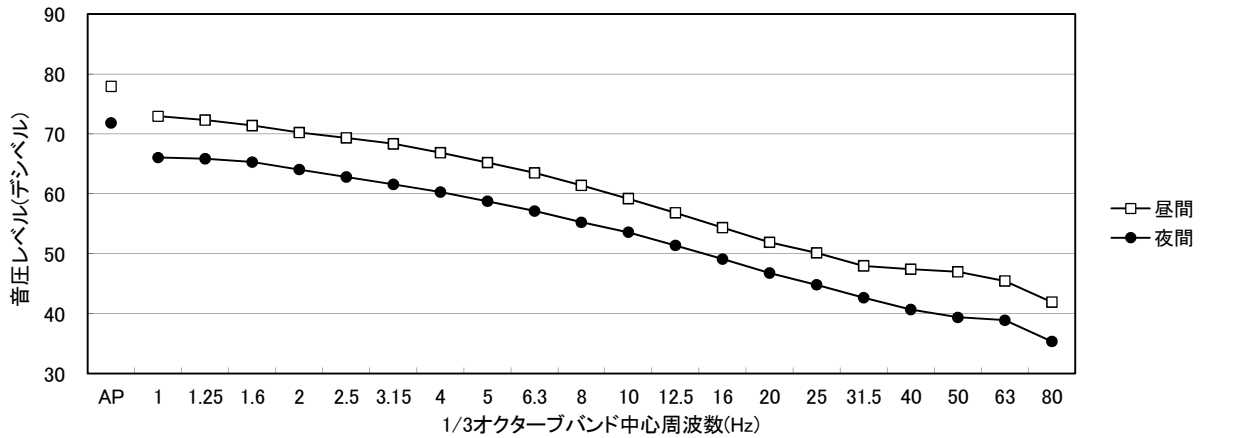
測定地点:地点② 面替地区(上尾崎付近)

測定日 :平成25年11月18日(月) ~ 11月19日(火)

単位:デシベル

測定時間	G特性 音圧レベル	1/3オクターブバンド中心周波数(Hz)																				
		AP	1	1.25	1.6	2	2.5	3.15	4	5	6.3	8	10	12.5	16	20	25	31.5	40	50	63	80
12~13	68.5	79.5	75.5	74.3	73.1	71.8	71.1	70.1	68.5	66.8	64.9	62.7	60.3	57.8	55.0	52.5	50.1	47.8	46.4	44.8	46.0	41.6
13~14	72.1	83.9	78.4	78.0	77.5	76.1	75.4	74.8	73.1	70.9	69.3	66.9	64.3	61.5	58.3	55.5	52.7	50.3	48.3	47.3	48.6	43.3
14~15	65.1	77.8	75.0	73.7	72.7	70.8	69.4	67.8	66.2	64.2	62.1	59.8	56.9	54.2	51.4	49.0	47.6	46.3	47.1	50.2	46.8	44.1
15~16	70.2	81.7	76.0	76.1	74.8	74.2	73.4	72.1	70.4	68.8	66.8	64.7	62.1	59.4	56.9	53.9	51.3	49.4	48.9	51.0	45.3	43.6
16~17	53.8	62.6	57.1	56.4	55.4	54.2	52.7	51.1	49.2	47.0	44.8	42.3	40.0	39.2	39.9	40.2	42.7	43.4	46.5	49.0	44.9	41.8
17~18	52.0	62.0	56.3	55.7	54.7	53.8	51.9	50.4	48.7	46.6	44.5	42.3	39.9	38.0	37.5	38.1	40.6	42.0	42.8	43.3	42.6	40.1
18~19	50.9	60.6	54.5	54.2	53.6	52.0	50.3	49.1	47.6	45.7	43.6	41.0	38.3	36.3	36.2	37.0	40.0	40.3	41.3	40.7	41.1	38.3
19~20	50.6	58.5	53.0	51.8	51.2	50.0	48.1	46.6	44.3	41.8	40.1	37.8	35.8	34.9	36.2	37.4	39.8	40.4	40.9	40.7	40.7	38.2
20~21	49.7	59.6	55.0	54.6	53.3	51.3	49.5	47.8	46.1	43.9	41.9	39.0	36.9	35.6	35.8	36.1	37.9	38.2	39.0	39.4	39.6	37.1
21~22	52.2	63.1	56.1	56.1	54.6	54.0	52.5	50.9	49.4	47.5	45.4	43.4	41.3	39.6	38.1	38.0	39.0	38.9	39.1	39.3	42.9	34.7
22~23	50.8	61.6	53.6	54.1	52.9	52.2	50.2	49.0	47.3	46.0	43.8	41.5	38.8	37.3	36.8	36.6	38.6	38.4	38.7	38.5	38.6	35.8
23~0	48.7	58.3	53.1	51.9	51.3	49.9	48.0	46.3	44.6	42.7	40.4	38.2	35.7	34.7	34.7	34.9	37.7	37.3	37.6	38.1	38.5	34.7
0~1	50.4	61.9	56.5	56.3	55.2	53.7	51.8	50.4	48.2	46.6	44.8	42.4	39.8	37.7	36.3	35.8	38.7	36.5	37.0	37.2	37.9	34.4
1~2	61.8	71.9	66.2	66.9	65.1	63.8	62.7	61.1	59.9	58.5	56.8	55.0	53.2	51.3	48.7	46.2	44.2	41.6	40.3	38.4	38.3	34.7
2~3	55.1	66.1	61.4	60.4	59.5	57.8	56.8	55.3	53.5	52.5	50.1	48.1	46.2	43.9	42.0	39.7	38.7	38.2	36.7	36.8	38.3	33.7
3~4	59.6	69.7	63.4	63.3	62.6	61.7	60.1	59.1	57.4	55.7	54.4	52.7	50.9	48.5	46.5	44.1	42.2	40.7	38.1	38.0	38.8	33.5
4~5	62.8	73.0	68.5	66.6	67.4	65.3	64.3	62.9	61.2	59.8	58.1	56.3	54.2	51.8	49.6	47.3	45.4	43.3	41.2	39.8	38.5	36.3
5~6	69.2	78.4	72.2	72.4	71.8	70.8	69.5	68.4	67.3	65.7	64.1	62.2	60.7	58.5	56.2	53.8	51.4	48.9	46.1	43.7	41.4	38.0
6~7	59.8	70.7	65.5	65.0	64.2	63.1	61.3	60.5	58.7	56.9	54.9	53.0	50.7	48.7	46.5	44.4	43.6	42.4	48.5	42.3	40.3	37.3
7~8	70.8	79.1	73.5	73.3	72.0	71.3	70.1	69.5	68.1	67.0	65.4	63.4	61.7	60.1	57.6	55.7	53.6	51.1	48.9	47.6	46.6	42.1
8~9	69.9	79.1	74.6	73.7	72.8	71.4	70.6	69.4	68.3	66.8	65.1	63.2	61.4	59.2	56.9	54.4	52.4	50.1	48.6	47.4	47.2	43.1
9~10	70.5	79.7	75.0	74.0	72.9	72.4	70.8	69.7	68.6	67.2	65.8	63.8	61.9	59.4	57.5	55.2	52.8	50.6	49.7	46.8	45.0	41.6
10~11	68.9	78.5	73.2	72.9	71.9	70.7	69.6	68.7	67.2	65.9	64.3	62.3	60.1	58.0	55.6	53.5	51.7	49.7	48.6	49.4	47.7	42.1
11~12	71.4	80.2	74.8	74.0	73.3	71.8	71.6	70.4	69.2	67.9	66.3	64.6	62.7	60.6	58.3	55.7	55.4	52.5	52.0	49.3	48.4	46.7
平均	66	77	72	71	70	69	68	67	66	64	62	60	58	56	53	51	49	47	46	46	44	41
昼間	68	78	73	72	71	70	69	68	67	65	64	61	59	57	54	52	50	48	47	47	45	42
夜間	62	72	66	66	65	64	63	62	60	59	57	55	54	51	49	47	45	43	41	39	39	35

注) 平均値はパワー平均値である。



#### 4.2 低周波音現地調査結果（現有施設）

現有施設である佐久クリーンセンターの低周波音現地調査結果を、表 5.2-1 に示す。

表5.2-1 低周波音現地調査結果(現有施設) (パワー平均値:Leq)

測定場所: 地点③ 佐久クリーンセンター

測定日 : 平成25年11月21日(木)

単位: デシベル

地点番号	G特性 音圧レベル	1/3オクターブバンド中心周波数(Hz)																				
		AP	1	1.25	1.6	2	2.5	3.15	4	5	6.3	8	10	12.5	16	20	25	31.5	40	50	63	80
③a	72	74	60	61	61	61	59	58	57	57	60	63	56	57	59	60	60	63	63	63	64	64
③b	75	73	55	55	54	55	55	54	54	59	59	60	57	58	62	62	63	66	62	64	62	57
③c	75	75	65	65	65	63	60	60	58	59	59	61	58	58	62	62	61	65	59	57	56	52
③d	77	75	65	63	63	62	60	58	58	61	61	60	57	57	62	66	60	61	59	59	57	54
③e	72	71	60	59	58	57	56	56	55	60	58	58	54	55	59	60	57	58	57	56	55	54

