

Diesel Hydrotreating Unit



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (East Area)		
	August 2023		
	22-23		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	73.7	72.6	95.5
10:00-11:00	74.1		
11:00-12:00	70.5		
12:00-13:00	69.4		
13:00-14:00	71.5		
14:00-15:00	73.8		
15:00-16:00	73.0		
16:00-17:00	72.5		
17:00-18:00	71.2	67.4	96.0
18:00-19:00	69.6		
19:00-20:00	67.8		
20:00-21:00	65.2		
21:00-22:00	65.7		
22:00-23:00	65.1		
23:00-00:00	64.9		
00:00-01:00	63.9	68.6	102.6
01:00-02:00	63.9		
02:00-03:00	64.2		
03:00-04:00	63.8		
04:00-05:00	63.9		
05:00-06:00	64.0		
06:00-07:00	64.3		
07:00-08:00	70.1		
08:00-09:00	75.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R39	ACO	6236	00192051
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (East Area)		
	August 2023		
	23-24		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	74.0	73.2	105.1
10:00-11:00	73.2		
11:00-12:00	70.5		
12:00-13:00	68.2		
13:00-14:00	70.8		
14:00-15:00	73.2		
15:00-16:00	77.0		
16:00-17:00	72.8		
17:00-18:00	70.9	67.5	96.2
18:00-19:00	69.7		
19:00-20:00	67.9		
20:00-21:00	65.2		
21:00-22:00	65.3		
22:00-23:00	65.5		
23:00-00:00	65.6		
00:00-01:00	64.5	66.7	96.2
01:00-02:00	64.3		
02:00-03:00	64.0		
03:00-04:00	63.8		
04:00-05:00	63.6		
05:00-06:00	63.7		
06:00-07:00	63.9		
07:00-08:00	67.2		
08:00-09:00	72.5		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R39	ACO	6236	00192051
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (East Area)		
	August 2023		
	26-27		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	80.4	80.0	101.9
10:00-11:00	80.0		
11:00-12:00	79.6		
12:00-13:00	77.6		
13:00-14:00	79.8		
14:00-15:00	81.1		
15:00-16:00	80.4		
16:00-17:00	80.5		
17:00-18:00	80.5	72.8	90.5
18:00-19:00	71.9		
19:00-20:00	70.8		
20:00-21:00	65.0		
21:00-22:00	62.7		
22:00-23:00	62.9		
23:00-00:00	63.2		
00:00-01:00	63.1		
01:00-02:00	63.1	71.8	108.5
02:00-03:00	62.9		
03:00-04:00	63.1		
04:00-05:00	62.6		
05:00-06:00	62.7		
06:00-07:00	67.7		
07:00-08:00	74.7		
08:00-09:00	78.9		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R39	ACO	6236	00192051
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations.

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (East Area)		
	August 2023		
	27-28		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	78.0	79.7	109.3
10:00-11:00	79.2		
11:00-12:00	78.9		
12:00-13:00	76.8		
13:00-14:00	79.7		
14:00-15:00	81.3		
15:00-16:00	83.5		
16:00-17:00	73.7		
17:00-18:00	66.6	63.7	84.0
18:00-19:00	63.4		
19:00-20:00	63.4		
20:00-21:00	63.7		
21:00-22:00	63.2		
22:00-23:00	62.8		
23:00-00:00	62.6		
00:00-01:00	62.3		
01:00-02:00	62.4	65.5	101.4
02:00-03:00	62.6		
03:00-04:00	62.5		
04:00-05:00	62.7		
05:00-06:00	64.0		
06:00-07:00	64.7		
07:00-08:00	66.5		
08:00-09:00	70.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R39	ACO	6236	00192051
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (East Area)		
	August 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:00-10:00	75.5	74.1	100.8
10:00-11:00	75.8		
11:00-12:00	70.8		
12:00-13:00	66.6		
13:00-14:00	70.3		
14:00-15:00	75.2		
15:00-16:00	76.7		
16:00-17:00	73.9		
17:00-18:00	72.3	67.6	100.1
18:00-19:00	70.5		
19:00-20:00	67.2		
20:00-21:00	64.8		
21:00-22:00	64.3		
22:00-23:00	63.7		
23:00-00:00	63.9		
00:00-01:00	63.7	67.8	93.3
01:00-02:00	63.9		
02:00-03:00	63.1		
03:00-04:00	62.4		
04:00-05:00	62.4		
05:00-06:00	62.5		
06:00-07:00	62.7		
07:00-08:00	65.6		
08:00-09:00	75.2		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R39	ACO	6236	00192051
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.



Technical Supervisor
 04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	23-24		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:40-10:40	71.6	78.9	94.1
10:40-11:40	71.5		
11:40-12:40	75.3		
12:40-13:40	70.8		
13:40-14:40	82.9		
14:40-15:40	84.4		
15:40-16:40	77.9		
16:40-17:40	70.8	70.0	90.9
17:40-18:40	70.9		
18:40-19:40	70.5		
19:40-20:40	69.6		
20:40-21:40	69.3		
21:40-22:40	69.2		
22:40-23:40	70.2		
23:40-00:40	70.1	72.8	95.1
00:40-01:40	69.7		
01:40-02:40	69.2		
02:40-03:40	69.1		
03:40-04:40	69.1		
04:40-05:40	69.2		
05:40-06:40	68.7		
06:40-07:40	69.0		
07:40-08:40	73.2		
08:40-09:40	79.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	24-25		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:40-10:40	78.4	74.6	94.8
10:40-11:40	75.5		
11:40-12:40	69.0		
12:40-13:40	71.4		
13:40-14:40	76.4		
14:40-15:40	73.2		
15:40-16:40	74.4		
16:40-17:40	71.7		
17:40-18:40	71.3	70.4	87.3
18:40-19:40	70.7		
19:40-20:40	70.1		
20:40-21:40	70.3		
21:40-22:40	69.9		
22:40-23:40	70.4		
23:40-00:40	70.2		
00:40-01:40	70.0	71.0	92.2
01:40-02:40	69.7		
02:40-03:40	69.7		
03:40-04:40	72.2		
04:40-05:40	69.6		
05:40-06:40	69.6		
06:40-07:40	70.1		
07:40-08:40	71.3		
08:40-09:40	73.6		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.



Technical Supervisor
 04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:40-10:40	74.0	74.7	108.0
10:40-11:40	72.5		
11:40-12:40	69.9		
12:40-13:40	70.1		
13:40-14:40	75.5		
14:40-15:40	76.6		
15:40-16:40	76.4		
16:40-17:40	76.7	70.7	89.4
17:40-18:40	73.8		
18:40-19:40	71.5		
19:40-20:40	69.7		
20:40-21:40	69.6		
21:40-22:40	69.5		
22:40-23:40	70.4		
23:40-00:40	69.8	71.8	95.9
00:40-01:40	69.7		
01:40-02:40	69.6		
02:40-03:40	70.0		
03:40-04:40	70.0		
04:40-05:40	69.5		
05:40-06:40	69.2		
06:40-07:40	69.3	73.9	
07:40-08:40	73.9		
08:40-09:40	76.1		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

(Benjaporn Homkitin)

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	26-27		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:40-10:40	76.1	74.5	107.4
10:40-11:40	72.8		
11:40-12:40	70.8		
12:40-13:40	71.7		
13:40-14:40	76.1		
14:40-15:40	76.2		
15:40-16:40	75.0		
16:40-17:40	74.2		
17:40-18:40	70.7	70.4	79.5
18:40-19:40	70.1		
19:40-20:40	70.8		
20:40-21:40	70.3		
21:40-22:40	69.9		
22:40-23:40	70.6		
23:40-00:40	70.5		
00:40-01:40	70.4		
01:40-02:40	70.6	73.0	98.1
02:40-03:40	70.4		
03:40-04:40	70.5		
04:40-05:40	70.6		
05:40-06:40	70.4		
06:40-07:40	70.3		
07:40-08:40	75.3		
08:40-09:40	77.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.



Technical Supervisor
 04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22-29 August 2023
Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	27-28		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:40-10:40	75.2	72.4	100.2
10:40-11:40	72.7		
11:40-12:40	70.7		
12:40-13:40	72.0		
13:40-14:40	74.1		
14:40-15:40	72.1		
15:40-16:40	69.5		
16:40-17:40	69.5		
17:40-18:40	69.7	69.6	87.7
18:40-19:40	69.3		
19:40-20:40	69.7		
20:40-21:40	69.4		
21:40-22:40	69.0		
22:40-23:40	70.0		
23:40-00:40	69.8		
00:40-01:40	70.2	74.4	106.6
01:40-02:40	70.4		
02:40-03:40	70.1		
03:40-04:40	70.1		
04:40-05:40	70.1		
05:40-06:40	70.0		
06:40-07:40	69.9		
07:40-08:40	79.8		
08:40-09:40	77.9		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (South Area)		
	August 2023		
	28-29		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:40-10:40	76.9	74.2	105.0
10:40-11:40	73.4		
11:40-12:40	71.1		
12:40-13:40	71.1		
13:40-14:40	75.5		
14:40-15:40	75.3		
15:40-16:40	74.5		
16:40-17:40	72.7		
17:40-18:40	71.1	70.4	89.6
18:40-19:40	71.0		
19:40-20:40	69.9		
20:40-21:40	70.3		
21:40-22:40	69.8		
22:40-23:40	70.2		
23:40-00:40	70.4		
00:40-01:40	70.0		
01:40-02:40	69.9	70.9	97.5
02:40-03:40	69.8		
03:40-04:40	69.7		
04:40-05:40	69.8		
05:40-06:40	69.9		
06:40-07:40	69.6		
07:40-08:40	72.0		
08:40-09:40	74.1		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R07	ACO	6236	00152080
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.



Technical Supervisor
 04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol. Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	22-23		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	75.5	74.9	104.9
10:30-11:30	74.7		
11:30-12:30	73.6		
12:30-13:30	73.1		
13:30-14:30	75.6		
14:30-15:30	75.6		
15:30-16:30	75.3		
16:30-17:30	74.8		
17:30-18:30	74.5	73.9	84.9
18:30-19:30	74.9		
19:30-20:30	74.3		
20:30-21:30	73.5		
21:30-22:30	73.5		
22:30-23:30	73.5		
23:30-00:30	73.4		
00:30-01:30	73.3	74.1	94.3
01:30-02:30	73.3		
02:30-03:30	73.4		
03:30-04:30	73.4		
04:30-05:30	73.4		
05:30-06:30	73.3		
06:30-07:30	73.3		
07:30-08:30	75.5		
08:30-09:30	76.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	23-24		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	75.8	75.7	93.7
10:30-11:30	75.2		
11:30-12:30	74.5		
12:30-13:30	73.8		
13:30-14:30	76.7		
14:30-15:30	76.9		
15:30-16:30	76.0		
16:30-17:30	75.6		
17:30-18:30	75.1	74.2	87.2
18:30-19:30	75.2		
19:30-20:30	74.6		
20:30-21:30	73.6		
21:30-22:30	73.7		
22:30-23:30	73.8		
23:30-00:30	73.6		
00:30-01:30	73.5		
01:30-02:30	73.5	74.3	95.6
02:30-03:30	73.5		
03:30-04:30	73.5		
04:30-05:30	73.6		
05:30-06:30	73.6		
06:30-07:30	73.7		
07:30-08:30	76.0		
08:30-09:30	75.9		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol. Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Address : Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	24-25		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	76.5	75.3	99.6
10:30-11:30	74.5		
11:30-12:30	73.3		
12:30-13:30	73.9		
13:30-14:30	76.4		
14:30-15:30	76.4		
15:30-16:30	75.2		
16:30-17:30	74.8		
17:30-18:30	74.7	73.8	85.2
18:30-19:30	74.6		
19:30-20:30	73.9		
20:30-21:30	72.9		
21:30-22:30	73.1		
22:30-23:30	73.5		
23:30-00:30	73.6		
00:30-01:30	73.3		
01:30-02:30	73.2	74.0	97.5
02:30-03:30	73.3		
03:30-04:30	73.1		
04:30-05:30	72.9		
05:30-06:30	72.9		
06:30-07:30	73.0		
07:30-08:30	75.2		
08:30-09:30	76.6		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol. Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	25-26		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	76.2	74.9	94.8
10:30-11:30	74.7		
11:30-12:30	73.2		
12:30-13:30	72.9		
13:30-14:30	75.4		
14:30-15:30	75.3		
15:30-16:30	75.1		
16:30-17:30	75.3		
17:30-18:30	74.2	73.5	89.1
18:30-19:30	74.6		
19:30-20:30	74.1		
20:30-21:30	72.8		
21:30-22:30	72.9		
22:30-23:30	73.2		
23:30-00:30	73.2		
00:30-01:30	72.7	73.4	92.7
01:30-02:30	72.9		
02:30-03:30	72.9		
03:30-04:30	72.8		
04:30-05:30	72.6		
05:30-06:30	72.6		
06:30-07:30	72.6		
07:30-08:30	74.2		
08:30-09:30	75.7		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22-29 August 2023
Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	75.5	74.4	98.8
10:30-11:30	74.5		
11:30-12:30	73.1		
12:30-13:30	72.8		
13:30-14:30	74.9		
14:30-15:30	74.8		
15:30-16:30	74.3		
16:30-17:30	74.6	72.7	81.4
17:30-18:30	73.4		
18:30-19:30	72.5		
19:30-20:30	72.6		
20:30-21:30	72.5		
21:30-22:30	72.5		
22:30-23:30	72.6		
23:30-00:30	72.7	73.5	98.7
00:30-01:30	72.6		
01:30-02:30	72.7		
02:30-03:30	72.7		
03:30-04:30	72.7		
04:30-05:30	72.8		
05:30-06:30	72.8		
06:30-07:30	72.8	74.7	
07:30-08:30	74.7		
08:30-09:30	75.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.
 Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	27-28		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:15-10:15	75.1	73.6	90.2
10:15-11:15	74.2		
11:15-12:15	73.0		
12:15-13:15	72.7		
13:15-14:15	74.3		
14:15-15:15	73.9		
15:15-16:15	72.7		
16:15-17:15	72.6		
17:15-18:15	72.6	72.6	78.9
18:15-19:15	72.5		
19:15-20:15	72.6		
20:15-21:15	72.6		
21:15-22:15	72.6		
22:15-23:15	72.7		
23:15-00:15	72.6		
00:15-01:15	72.5	73.5	101.0
01:15-02:15	72.5		
02:15-03:15	72.5		
03:15-04:15	72.5		
04:15-05:15	72.5		
05:15-06:15	72.6		
06:15-07:15	72.6		
07:15-08:15	74.8		
08:15-09:15	76.2		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22-29 August 2023
Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (West Area)		
	August 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	75.7	74.3	107.0
10:30-11:30	74.3		
11:30-12:30	72.9		
12:30-13:30	72.3		
13:30-14:30	74.1		
14:30-15:30	75.3		
15:30-16:30	74.5		
16:30-17:30	74.4		
17:30-18:30	73.9	72.8	90.8
18:30-19:30	74.0		
19:30-20:30	73.3		
20:30-21:30	71.9		
21:30-22:30	72.0		
22:30-23:30	71.9		
23:30-00:30	72.2		
00:30-01:30	72.5		
01:30-02:30	72.7	73.3	98.6
02:30-03:30	72.7		
03:30-04:30	72.5		
04:30-05:30	72.4		
05:30-06:30	72.6		
06:30-07:30	72.6		
07:30-08:30	74.3		
08:30-09:30	75.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	22-23		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	74.9	74.8	95.3
10:00-11:00	74.8		
11:00-12:00	73.9		
12:00-13:00	73.0		
13:00-14:00	75.1		
14:00-15:00	75.8		
15:00-16:00	75.0		
16:00-17:00	75.6		
17:00-18:00	74.1	70.7	96.4
18:00-19:00	70.7		
19:00-20:00	70.0		
20:00-21:00	70.0		
21:00-22:00	70.3		
22:00-23:00	69.7		
23:00-00:00	69.4		
00:00-01:00	68.7	70.1	93.2
01:00-02:00	68.3		
02:00-03:00	68.3		
03:00-04:00	68.3		
04:00-05:00	68.1		
05:00-06:00	68.2		
06:00-07:00	68.4		
07:00-08:00	71.2		
08:00-09:00	74.7		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72 Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	23-24		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	74.8	74.6	100.4
10:00-11:00	74.6		
11:00-12:00	73.0		
12:00-13:00	72.7		
13:00-14:00	73.9		
14:00-15:00	75.0		
15:00-16:00	75.0		
16:00-17:00	76.5		
17:00-18:00	73.7	71.4	95.6
18:00-19:00	73.3		
19:00-20:00	71.9		
20:00-21:00	70.5		
21:00-22:00	69.9		
22:00-23:00	70.8		
23:00-00:00	70.4		
00:00-01:00	68.5	69.5	94.8
01:00-02:00	68.0		
02:00-03:00	68.2		
03:00-04:00	67.9		
04:00-05:00	67.5		
05:00-06:00	67.7		
06:00-07:00	68.1		
07:00-08:00	70.3		
08:00-09:00	73.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol. Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	24-25		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	75.2	74.3	94.7
10:00-11:00	74.7		
11:00-12:00	72.7		
12:00-13:00	71.5		
13:00-14:00	74.3		
14:00-15:00	74.8		
15:00-16:00	74.6		
16:00-17:00	75.4	70.9	92.8
17:00-18:00	73.2		
18:00-19:00	72.9		
19:00-20:00	70.8		
20:00-21:00	69.7		
21:00-22:00	70.1		
22:00-23:00	69.7		
23:00-00:00	69.6	69.9	93.6
00:00-01:00	69.2		
01:00-02:00	68.7		
02:00-03:00	68.1		
03:00-04:00	68.1		
04:00-05:00	67.8		
05:00-06:00	68.0		
06:00-07:00	68.3		
07:00-08:00	71.1		
08:00-09:00	74.1		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023

Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	25-26		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	75.0	73.7	97.2
10:00-11:00	74.3		
11:00-12:00	72.3		
12:00-13:00	70.0		
13:00-14:00	72.4		
14:00-15:00	75.0		
15:00-16:00	74.1		
16:00-17:00	74.2	70.3	94.2
17:00-18:00	72.2		
18:00-19:00	71.9		
19:00-20:00	70.9		
20:00-21:00	69.5		
21:00-22:00	69.5		
22:00-23:00	69.5		
23:00-00:00	69.0		
00:00-01:00	67.8	69.2	106.5
01:00-02:00	67.9		
02:00-03:00	67.6		
03:00-04:00	67.3		
04:00-05:00	67.7		
05:00-06:00	67.5		
06:00-07:00	68.0		
07:00-08:00	70.5		
08:00-09:00	72.9		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22-29 August 2023
Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:00-10:00	73.6	73.6	99.3
10:00-11:00	75.1		
11:00-12:00	71.7		
12:00-13:00	70.5		
13:00-14:00	72.5		
14:00-15:00	73.9		
15:00-16:00	76.4		
16:00-17:00	71.8		
17:00-18:00	69.9	68.1	89.5
18:00-19:00	68.0		
19:00-20:00	68.0		
20:00-21:00	67.7		
21:00-22:00	67.6		
22:00-23:00	67.7		
23:00-00:00	68.1		
00:00-01:00	67.5		
01:00-02:00	67.6	69.4	98.9
02:00-03:00	67.5		
03:00-04:00	67.4		
04:00-05:00	67.2		
05:00-06:00	67.5		
06:00-07:00	67.8		
07:00-08:00	70.1		
08:00-09:00	74.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
 7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
 7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
 Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
 Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
 Mueang, Rayong 21000
 Client Name/Addr: Hyundai Engineering Company
 Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 22-29 August 2023
 Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	27-28		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:00-10:00	74.3	73.0	96.8
10:00-11:00	73.6		
11:00-12:00	72.0		
12:00-13:00	69.9		
13:00-14:00	73.1		
14:00-15:00	75.7		
15:00-16:00	72.6		
16:00-17:00	69.0		
17:00-18:00	68.0	68.0	93.8
18:00-19:00	67.6		
19:00-20:00	67.9		
20:00-21:00	68.4		
21:00-22:00	68.0		
22:00-23:00	67.9		
23:00-00:00	68.3		
00:00-01:00	67.9	69.3	99.0
01:00-02:00	67.3		
02:00-03:00	67.6		
03:00-04:00	67.4		
04:00-05:00	67.4		
05:00-06:00	67.5		
06:00-07:00	68.2		
07:00-08:00	70.2		
08:00-09:00	73.6		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
 Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
 in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
 Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 09 / 23



RY137/08/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22-29 August 2023
Date Reported : 4 September 2023

Time	Diesel Hydrotreating Unit Area (North Area)		
	August 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:00-10:00	75.1	73.9	110.7
10:00-11:00	74.2		
11:00-12:00	72.2		
12:00-13:00	70.3		
13:00-14:00	72.4		
14:00-15:00	74.4		
15:00-16:00	76.3		
16:00-17:00	73.1		
17:00-18:00	73.1	70.3	100.0
18:00-19:00	71.6		
19:00-20:00	71.1		
20:00-21:00	70.5		
21:00-22:00	68.8		
22:00-23:00	68.3		
23:00-00:00	68.7		
00:00-01:00	67.7		
01:00-02:00	67.8	69.4	91.2
02:00-03:00	67.8		
03:00-04:00	67.7		
04:00-05:00	67.7		
05:00-06:00	67.8		
06:00-07:00	68.2		
07:00-08:00	69.9		
08:00-09:00	73.7		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 440/23		21 August 2023	
SLM No.	Brand	Model	Serial No.
ACO-R22	ACO	6236	00182010
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

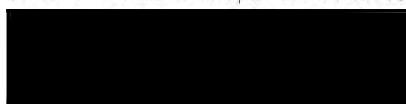
Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor
04 / 09 / 23

Enclosed Ground Flare





RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	11-12			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	56.5	57.9	86.0	
11:00-12:00	55.8			
12:00-13:00	55.4			
13:00-14:00	58.5			
14:00-15:00	59.2			
15:00-16:00	61.3			
16:00-17:00	56.6			
17:00-18:00	55.7			
18:00-19:00	53.6	52.5	77.5	
19:00-20:00	52.6			
20:00-21:00	52.2			
21:00-22:00	52.2			
22:00-23:00	52.1			
23:00-00:00	52.1			
00:00-01:00	51.9			
01:00-02:00	53.1			
02:00-03:00	55.6	56.4	91.8	
03:00-04:00	53.6			
04:00-05:00	52.5			
05:00-06:00	53.5			
06:00-07:00	54.3			
07:00-08:00	57.2			
08:00-09:00	56.8			
09:00-10:00	61.0			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	12-13			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	59.3	58.0	92.1	
11:00-12:00	54.5			
12:00-13:00	54.5			
13:00-14:00	59.7			
14:00-15:00	57.9			
15:00-16:00	59.5			
16:00-17:00	59.6			
17:00-18:00	55.4			
18:00-19:00	54.6	53.2	82.1	
19:00-20:00	53.7			
20:00-21:00	51.8			
21:00-22:00	53.7			
22:00-23:00	52.4			
23:00-00:00	52.9			
00:00-01:00	53.1			
01:00-02:00	52.4			
02:00-03:00	52.2	53.6	77.7	
03:00-04:00	51.6			
04:00-05:00	51.4			
05:00-06:00	51.7			
06:00-07:00	53.0			
07:00-08:00	55.6			
08:00-09:00	55.7			
09:00-10:00	54.8			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)		
	October 2023		
	13-14		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	57.6	55.8	87.9
11:00-12:00	56.1		
12:00-13:00	54.5		
13:00-14:00	55.5		
14:00-15:00	55.2		
15:00-16:00	58.9		
16:00-17:00	51.3		
17:00-18:00	52.3		
18:00-19:00	52.6	52.8	61.3
19:00-20:00	52.6		
20:00-21:00	53.0		
21:00-22:00	53.5		
22:00-23:00	53.5		
23:00-00:00	52.5		
00:00-01:00	51.9		
01:00-02:00	52.5		
02:00-03:00	52.3	53.4	87.6
03:00-04:00	51.9		
04:00-05:00	51.5		
05:00-06:00	50.7		
06:00-07:00	51.6		
07:00-08:00	54.9		
08:00-09:00	55.3		
09:00-10:00	55.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 536/23		10 October 2023	
Equipment	Brand	Model	Serial No.
Sound Level Meter (No.R33)	ACO	6236	00192045
Standard			
IEC 61672			
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

35 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	14-15			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	54.4	55.9	84.0	
11:00-12:00	54.8			
12:00-13:00	54.4			
13:00-14:00	55.4			
14:00-15:00	56.7			
15:00-16:00	55.7			
16:00-17:00	59.1			
17:00-18:00	53.5	51.6	64.0	
18:00-19:00	52.2			
19:00-20:00	52.2			
20:00-21:00	51.2			
21:00-22:00	51.2			
22:00-23:00	51.2			
23:00-00:00	51.4			
00:00-01:00	51.0	52.4	71.1	
01:00-02:00	51.8			
02:00-03:00	51.9			
03:00-04:00	51.9			
04:00-05:00	51.7			
05:00-06:00	52.2			
06:00-07:00	51.9			
07:00-08:00	51.6	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
08:00-09:00	51.9			
09:00-10:00	54.9			
Standard				
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	15-16			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	52.0	55.7	92.4	
11:00-12:00	51.1			
12:00-13:00	51.2			
13:00-14:00	50.9			
14:00-15:00	51.6			
15:00-16:00	50.9			
16:00-17:00	50.4			
17:00-18:00	63.1	51.9	76.6	
18:00-19:00	55.1			
19:00-20:00	51.2			
20:00-21:00	50.0			
21:00-22:00	50.3			
22:00-23:00	50.8			
23:00-00:00	51.3			
00:00-01:00	51.5	54.6	81.4	
01:00-02:00	52.8			
02:00-03:00	52.5			
03:00-04:00	57.7			
04:00-05:00	51.0			
05:00-06:00	51.1			
06:00-07:00	51.2			
07:00-08:00	55.1	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
08:00-09:00	56.7			
09:00-10:00	55.6			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	16-17			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	55.4	55.3	82.6	
11:00-12:00	55.1			
12:00-13:00	54.1			
13:00-14:00	55.1			
14:00-15:00	55.9			
15:00-16:00	56.2			
16:00-17:00	55.7			
17:00-18:00	53.9			
18:00-19:00	53.2	53.0	72.3	
19:00-20:00	52.5			
20:00-21:00	52.1			
21:00-22:00	52.4			
22:00-23:00	52.6			
23:00-00:00	52.9			
00:00-01:00	53.3			
01:00-02:00	54.3			
02:00-03:00	54.1	55.3	82.6	
03:00-04:00	54.1			
04:00-05:00	53.4			
05:00-06:00	53.5			
06:00-07:00	53.6			
07:00-08:00	56.9			
08:00-09:00	57.3			
09:00-10:00	56.9			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (East Area)			
	October 2023			
	17-18			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	54.9	62.2	99.4	
11:00-12:00	54.8			
12:00-13:00	59.1			
13:00-14:00	61.8			
14:00-15:00	69.1			
15:00-16:00	62.2			
16:00-17:00	56.0			
17:00-18:00	55.5	53.5	76.4	
18:00-19:00	55.9			
19:00-20:00	53.2			
20:00-21:00	52.6			
21:00-22:00	52.8			
22:00-23:00	52.6			
23:00-00:00	53.9			
00:00-01:00	52.0	55.3	93.5	
01:00-02:00	53.4			
02:00-03:00	54.1			
03:00-04:00	52.3			
04:00-05:00	51.5			
05:00-06:00	52.2			
06:00-07:00	51.8			
07:00-08:00	54.9	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
08:00-09:00	58.0			
09:00-10:00	59.5			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R33)	ACO	6236	00192045	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor
25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	11-12			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	56.4	55.9	82.7	
11:00-12:00	53.2			
12:00-13:00	50.7			
13:00-14:00	56.9			
14:00-15:00	59.4			
15:00-16:00	54.7			
16:00-17:00	55.7			
17:00-18:00	54.9			
18:00-19:00	52.9	51.1	72.0	
19:00-20:00	52.4			
20:00-21:00	50.5			
21:00-22:00	49.6			
22:00-23:00	49.5			
23:00-00:00	49.8			
00:00-01:00	49.3			
01:00-02:00	52.8			
02:00-03:00	54.8	57.0	85.6	
03:00-04:00	50.8			
04:00-05:00	57.2			
05:00-06:00	58.5			
06:00-07:00	53.5			
07:00-08:00	54.3			
08:00-09:00	60.3			
09:00-10:00	59.0			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	12-13			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	58.5	56.1	78.1	
11:00-12:00	52.2			
12:00-13:00	51.5			
13:00-14:00	57.0			
14:00-15:00	56.4			
15:00-16:00	58.6			
16:00-17:00	55.2			
17:00-18:00	54.0			
18:00-19:00	50.7	51.2	75.7	
19:00-20:00	50.1			
20:00-21:00	50.0			
21:00-22:00	53.8			
22:00-23:00	49.7			
23:00-00:00	50.7			
00:00-01:00	51.3			
01:00-02:00	51.9			
02:00-03:00	50.6	52.4	75.2	
03:00-04:00	50.2			
04:00-05:00	49.3			
05:00-06:00	49.3			
06:00-07:00	51.8			
07:00-08:00	53.0			
08:00-09:00	55.3			
09:00-10:00	55.1			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	13-14			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	54.2	52.8	77.8	
11:00-12:00	50.9			
12:00-13:00	51.5			
13:00-14:00	54.7			
14:00-15:00	55.4			
15:00-16:00	51.5			
16:00-17:00	50.9			
17:00-18:00	50.3			
18:00-19:00	51.1	50.4	60.7	
19:00-20:00	49.8			
20:00-21:00	49.9			
21:00-22:00	50.6			
22:00-23:00	51.3			
23:00-00:00	50.7			
00:00-01:00	49.7			
01:00-02:00	50.1			
02:00-03:00	50.4	52.8	93.4	
03:00-04:00	50.1			
04:00-05:00	49.5			
05:00-06:00	48.8			
06:00-07:00	50.1			
07:00-08:00	51.3			
08:00-09:00	55.6			
09:00-10:00	57.4			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	14-15			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	56.3	53.0	80.4	
11:00-12:00	50.8			
12:00-13:00	49.5			
13:00-14:00	53.9			
14:00-15:00	54.0			
15:00-16:00	52.2			
16:00-17:00	51.7			
17:00-18:00	51.4			
18:00-19:00	50.4	49.5	60.4	
19:00-20:00	49.9			
20:00-21:00	49.8			
21:00-22:00	49.7			
22:00-23:00	49.0			
23:00-00:00	48.9			
00:00-01:00	48.6			
01:00-02:00	49.5			
02:00-03:00	49.3	51.3	73.6	
03:00-04:00	49.4			
04:00-05:00	49.5			
05:00-06:00	49.4			
06:00-07:00	49.6			
07:00-08:00	49.8			
08:00-09:00	54.6			
09:00-10:00	54.1			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	15-16			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	55.6	56.8	89.6	
11:00-12:00	51.0			
12:00-13:00	50.3			
13:00-14:00	52.6			
14:00-15:00	52.6			
15:00-16:00	54.0			
16:00-17:00	53.9			
17:00-18:00	63.8			
18:00-19:00	53.0	50.4	71.8	
19:00-20:00	50.8			
20:00-21:00	49.4			
21:00-22:00	49.2			
22:00-23:00	49.1			
23:00-00:00	49.2			
00:00-01:00	50.1			
01:00-02:00	50.8			
02:00-03:00	51.1	53.0	79.9	
03:00-04:00	51.6			
04:00-05:00	49.3			
05:00-06:00	49.3			
06:00-07:00	50.0			
07:00-08:00	52.2			
08:00-09:00	55.2			
09:00-10:00	57.5			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)			
	October 2023			
	16-17			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	57.1	55.4	91.3	
11:00-12:00	52.0			
12:00-13:00	49.7			
13:00-14:00	54.6			
14:00-15:00	55.0			
15:00-16:00	56.7			
16:00-17:00	57.2			
17:00-18:00	56.1	50.5	78.5	
18:00-19:00	52.0			
19:00-20:00	51.6			
20:00-21:00	49.0			
21:00-22:00	50.4			
22:00-23:00	49.4			
23:00-00:00	49.5			
00:00-01:00	49.8	54.2	90.7	
01:00-02:00	51.2			
02:00-03:00	51.0			
03:00-04:00	51.3			
04:00-05:00	50.5			
05:00-06:00	50.4			
06:00-07:00	52.0			
07:00-08:00	54.6	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
08:00-09:00	57.1			
09:00-10:00	58.3			
Standard				
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R19)	ACO	6236	00182001	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (South Area)		
	October 2023		
	17-18		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	57.1	58.0	89.8
11:00-12:00	56.8		
12:00-13:00	55.9		
13:00-14:00	55.9		
14:00-15:00	58.5		
15:00-16:00	59.9		
16:00-17:00	58.7		
17:00-18:00	59.1		
18:00-19:00	59.7	53.8	99.4
19:00-20:00	55.0		
20:00-21:00	50.0		
21:00-22:00	50.1		
22:00-23:00	50.2		
23:00-00:00	50.2		
00:00-01:00	49.8		
01:00-02:00	52.3		
02:00-03:00	53.1	54.6	83.5
03:00-04:00	50.8		
04:00-05:00	50.0		
05:00-06:00	50.7		
06:00-07:00	52.2		
07:00-08:00	52.2		
08:00-09:00	57.8		
09:00-10:00	59.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 536/23		10 October 2023	
Equipment	Brand	Model	Serial No.
Sound Level Meter (No.R19)	ACO	6236	00182001
Standard			
IEC 61672			
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)			
	October 2023			
	11-12			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	66.3	64.3	95.9	
11:00-12:00	58.2			
12:00-13:00	50.5			
13:00-14:00	64.7			
14:00-15:00	68.9			
15:00-16:00	63.8			
16:00-17:00	62.9			
17:00-18:00	61.7			
18:00-19:00	59.2	53.8	80.2	
19:00-20:00	57.4			
20:00-21:00	52.7			
21:00-22:00	50.8			
22:00-23:00	47.7			
23:00-00:00	48.0			
00:00-01:00	47.1			
01:00-02:00	49.0			
02:00-03:00	51.9	63.0	91.0	
03:00-04:00	53.3			
04:00-05:00	59.1			
05:00-06:00	61.1			
06:00-07:00	52.1			
07:00-08:00	56.9			
08:00-09:00	68.6			
09:00-10:00	67.3			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)	ACO	6236	00192042	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)			
	October 2023			
	12-13			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	59.4	62.3	84.5	
11:00-12:00	57.7			
12:00-13:00	58.2			
13:00-14:00	58.9			
14:00-15:00	63.1			
15:00-16:00	66.0			
16:00-17:00	64.1			
17:00-18:00	63.1			
18:00-19:00	58.9	53.4	79.1	
19:00-20:00	57.0			
20:00-21:00	50.5			
21:00-22:00	50.8			
22:00-23:00	46.4			
23:00-00:00	49.0			
00:00-01:00	47.8			
01:00-02:00	46.7			
02:00-03:00	46.3	55.0	90.5	
03:00-04:00	46.0			
04:00-05:00	46.3			
05:00-06:00	47.0			
06:00-07:00	51.2			
07:00-08:00	56.2			
08:00-09:00	57.0			
09:00-10:00	61.1			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)	ACO	6236	00192042	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)				
	October 2023				
	13-14				
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]		L _{max} [dB(A)]	
10:00-11:00	60.0	56.1	83.3		
11:00-12:00	57.9				
12:00-13:00	51.2				
13:00-14:00	57.5				
14:00-15:00	57.2				
15:00-16:00	55.3				
16:00-17:00	46.5				
17:00-18:00	45.8	46.7	74.5		
18:00-19:00	45.9				
19:00-20:00	45.4				
20:00-21:00	47.5				
21:00-22:00	46.6				
22:00-23:00	47.2				
23:00-00:00	46.3				
00:00-01:00	47.0	56.0	80.5		
01:00-02:00	47.6				
02:00-03:00	47.5				
03:00-04:00	46.3				
04:00-05:00	45.1				
05:00-06:00	45.4				
06:00-07:00	51.2				
07:00-08:00	56.4	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]		
08:00-09:00	57.6				
09:00-10:00	62.7				
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]		
Sound Level Meter Data					
Calibrate Sheet No.: Noise R 536/23			10 October 2023		
Equipment		Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)		ACO	6236	00192042	IEC 61672
Actual Reading [dB]					
Before Adjustment			After Adjustment		
94.0			94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 25 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)				
	October 2023				
	14-15				
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]		L _{max} [dB(A)]	
10:00-11:00	66.8	61.2	101.0		
11:00-12:00	58.6				
12:00-13:00	49.8				
13:00-14:00	55.9				
14:00-15:00	60.7				
15:00-16:00	59.5				
16:00-17:00	63.1				
17:00-18:00	55.9				
18:00-19:00	47.6	45.7	63.6		
19:00-20:00	46.7				
20:00-21:00	46.1				
21:00-22:00	45.0				
22:00-23:00	44.7				
23:00-00:00	44.7				
00:00-01:00	44.3				
01:00-02:00	45.4				
02:00-03:00	45.7	51.5	80.9		
03:00-04:00	46.0				
04:00-05:00	46.1				
05:00-06:00	46.4				
06:00-07:00	46.5				
07:00-08:00	48.5				
08:00-09:00	53.8				
09:00-10:00	57.9				
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]		
Sound Level Meter Data					
Calibrate Sheet No.: Noise R 536/23			10 October 2023		
Equipment		Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)		ACO	6236	00192042	IEC 61672
Actual Reading [dB]					
Before Adjustment			After Adjustment		
94.0			94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor
25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)			
	October 2023			
	15-16			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	60.1	55.8	90.9	
11:00-12:00	53.3			
12:00-13:00	51.5			
13:00-14:00	53.1			
14:00-15:00	54.5			
15:00-16:00	58.5			
16:00-17:00	51.6			
17:00-18:00	55.4			
18:00-19:00	53.0	48.2	76.2	
19:00-20:00	46.7			
20:00-21:00	46.1			
21:00-22:00	46.0			
22:00-23:00	45.6			
23:00-00:00	46.9			
00:00-01:00	46.8			
01:00-02:00	47.9			
02:00-03:00	47.3	55.7	85.0	
03:00-04:00	51.5			
04:00-05:00	47.3			
05:00-06:00	49.2			
06:00-07:00	47.7			
07:00-08:00	53.1			
08:00-09:00	57.8			
09:00-10:00	62.5			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)	ACO	6236	00192042	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor
25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (West Area)			
	October 2023			
	16-17			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	64.3	60.5	79.6	
11:00-12:00	58.4			
12:00-13:00	52.7			
13:00-14:00	57.2			
14:00-15:00	58.0			
15:00-16:00	62.5			
16:00-17:00	62.7			
17:00-18:00	57.6			
18:00-19:00	51.7	50.1	74.1	
19:00-20:00	52.9			
20:00-21:00	49.8			
21:00-22:00	46.4			
22:00-23:00	47.0			
23:00-00:00	48.3			
00:00-01:00	49.1			
01:00-02:00	51.2			
02:00-03:00	51.0	55.6	81.0	
03:00-04:00	50.8			
04:00-05:00	49.3			
05:00-06:00	48.2			
06:00-07:00	49.7			
07:00-08:00	53.2			
08:00-09:00	57.1			
09:00-10:00	62.4			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)	ACO	6236	00192042	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (West Area)			
	October 2023			
	17-18			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
10:00-11:00	58.4	58.0	88.9	
11:00-12:00	57.3			
12:00-13:00	52.6			
13:00-14:00	55.1			
14:00-15:00	57.1			
15:00-16:00	62.0			
16:00-17:00	57.8			
17:00-18:00	57.6			
18:00-19:00	58.4	53.4	79.1	
19:00-20:00	57.9			
20:00-21:00	52.5			
21:00-22:00	47.2			
22:00-23:00	45.8			
23:00-00:00	47.8			
00:00-01:00	46.0			
01:00-02:00	49.9			
02:00-03:00	49.5	54.1	82.8	
03:00-04:00	47.7			
04:00-05:00	45.9			
05:00-06:00	47.2			
06:00-07:00	48.8			
07:00-08:00	54.6			
08:00-09:00	56.7			
09:00-10:00	60.0			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R30)	ACO	6236	00192042	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.0		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor
25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)				
	October 2023				
	11-12				
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]		
09:30-10:30	58.2	57.0	89.6		
10:30-11:30	55.6				
11:30-12:30	55.0				
12:30-13:30	55.3				
13:30-14:30	59.1				
14:30-15:30	57.7				
15:30-16:30	58.2				
16:30-17:30	54.1				
17:30-18:30	54.2	50.1	77.2		
18:30-19:30	52.4				
19:30-20:30	48.2				
20:30-21:30	48.3				
21:30-22:30	47.9				
22:30-23:30	48.0				
23:30-00:30	48.1				
00:30-01:30	47.7				
01:30-02:30	52.0	54.2	83.4		
02:30-03:30	47.5				
03:30-04:30	53.7				
04:30-05:30	52.0				
05:30-06:30	52.4				
06:30-07:30	53.5				
07:30-08:30	56.5				
08:30-09:30	58.1				
Standard		Less Than 90.0 ^[1]		Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data					
Calibrate Sheet No.: Noise R 536/23			10 October 2023		
Equipment		Brand	Model	Serial No.	Standard
Sound Level Meter (No.R21)		ACO	6236	00182004	IEC 61672
Actual Reading [dB]					
Before Adjustment			After Adjustment		
94.1			94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)			
	October 2023			
	12-13			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
09:30-10:30	57.6	56.4	85.8	
10:30-11:30	55.8			
11:30-12:30	54.4			
12:30-13:30	54.1			
13:30-14:30	57.6			
14:30-15:30	58.5			
15:30-16:30	55.8			
16:30-17:30	55.4			
17:30-18:30	54.8	50.6	74.6	
18:30-19:30	52.4			
19:30-20:30	47.5			
20:30-21:30	48.4			
21:30-22:30	50.2			
22:30-23:30	47.9			
23:30-00:30	48.8			
00:30-01:30	48.3			
01:30-02:30	47.4	51.3	75.6	
02:30-03:30	47.3			
03:30-04:30	47.0			
04:30-05:30	46.8			
05:30-06:30	47.8			
06:30-07:30	53.0			
07:30-08:30	55.1			
08:30-09:30	54.7			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R21)	ACO	6236	00182004	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.1		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 11-18 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 25 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Enclosed Ground Flare Area (North Area)			
	October 2023			
	13-14			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
09:30-10:30	56.0	55.0	78.4	
10:30-11:30	55.2			
11:30-12:30	54.6			
12:30-13:30	55.5			
13:30-14:30	56.4			
14:30-15:30	56.6			
15:30-16:30	53.1			
16:30-17:30	47.9			
17:30-18:30	48.1	48.3	56.2	
18:30-19:30	48.1			
19:30-20:30	48.1			
20:30-21:30	48.2			
21:30-22:30	49.4			
22:30-23:30	48.3			
23:30-00:30	47.9			
00:30-01:30	48.2			
01:30-02:30	48.6	52.0	88.2	
02:30-03:30	48.1			
03:30-04:30	47.6			
04:30-05:30	46.6			
05:30-06:30	47.8			
06:30-07:30	53.4			
07:30-08:30	54.3			
08:30-09:30	56.8			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R21)	ACO	6236	00182004	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.1		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

4/7

RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)		
	October 2023		
	14-15		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	55.1	55.3	82.0
10:30-11:30	55.1		
11:30-12:30	55.4		
12:30-13:30	55.3		
13:30-14:30	55.6		
14:30-15:30	56.0		
15:30-16:30	56.2		
16:30-17:30	53.1		
17:30-18:30	48.2	47.4	57.3
18:30-19:30	48.0		
19:30-20:30	47.4		
20:30-21:30	47.3		
21:30-22:30	46.9		
22:30-23:30	46.9		
23:30-00:30	47.0		
00:30-01:30	47.2		
01:30-02:30	47.6	47.9	82.1
02:30-03:30	47.4		
03:30-04:30	47.3		
04:30-05:30	47.3		
05:30-06:30	48.6		
06:30-07:30	47.3		
07:30-08:30	47.5		
08:30-09:30	49.7		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 536/23		10 October 2023	
Equipment	Brand	Model	Serial No.
Sound Level Meter (No.R21)	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23

RS/H008/23/OCT



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)			
	October 2023			
	15-16			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
09:30-10:30	50.7	50.7	87.0	
10:30-11:30	48.5			
11:30-12:30	47.2			
12:30-13:30	47.5			
13:30-14:30	49.0			
14:30-15:30	48.4			
15:30-16:30	49.5			
16:30-17:30	56.0			
17:30-18:30	55.4	50.2	77.5	
18:30-19:30	52.5			
19:30-20:30	47.3			
20:30-21:30	46.9			
21:30-22:30	47.4			
22:30-23:30	46.8			
23:30-00:30	47.0			
00:30-01:30	46.9			
01:30-02:30	47.3	51.4	83.7	
02:30-03:30	50.2			
03:30-04:30	47.4			
04:30-05:30	47.3			
05:30-06:30	48.5			
06:30-07:30	49.8			
07:30-08:30	54.8			
08:30-09:30	55.6			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R21)	ACO	6236	00182004	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.1		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

6/7

RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)		
	October 2023		
	16-17		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	55.2	55.4	83.7
10:30-11:30	54.7		
11:30-12:30	54.1		
12:30-13:30	53.9		
13:30-14:30	56.1		
14:30-15:30	56.5		
15:30-16:30	55.7		
16:30-17:30	56.3		
17:30-18:30	52.2	49.0	73.6
18:30-19:30	47.8		
19:30-20:30	47.4		
20:30-21:30	47.3		
21:30-22:30	47.4		
22:30-23:30	47.9		
23:30-00:30	48.4		
00:30-01:30	50.7		
01:30-02:30	49.8	52.0	79.0
02:30-03:30	49.5		
03:30-04:30	48.9		
04:30-05:30	48.2		
05:30-06:30	52.5		
06:30-07:30	51.0		
07:30-08:30	53.8		
08:30-09:30	56.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 536/23		10 October 2023	
Equipment	Brand	Model	Serial No.
Sound Level Meter (No.R21)	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23

RS/H008/23/OCT



RY179/10/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 11-18 October 2023
Date Reported : 25 October 2023

Time	Enclosed Ground Flare Area (North Area)			
	October 2023			
	17-18			
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]	
09:30-10:30	54.6	57.8	88.8	
10:30-11:30	54.3			
11:30-12:30	55.0			
12:30-13:30	58.1			
13:30-14:30	63.1			
14:30-15:30	57.0			
15:30-16:30	57.2			
16:30-17:30	54.5			
17:30-18:30	61.0	53.8	74.7	
18:30-19:30	52.1			
19:30-20:30	51.5			
20:30-21:30	46.9			
21:30-22:30	46.8			
22:30-23:30	51.7			
23:30-00:30	47.2			
00:30-01:30	46.9			
01:30-02:30	50.6	52.1	82.8	
02:30-03:30	49.5			
03:30-04:30	48.1			
04:30-05:30	47.1			
05:30-06:30	50.5			
06:30-07:30	48.7			
07:30-08:30	52.9			
08:30-09:30	57.9			
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]	
Sound Level Meter Data				
Calibrate Sheet No.: Noise R 536/23		10 October 2023		
Equipment	Brand	Model	Serial No.	Standard
Sound Level Meter (No.R21)	ACO	6236	00182004	IEC 61672
Actual Reading [dB]				
Before Adjustment		After Adjustment		
94.1		94.0		

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

25 / 10 / 23

Wastewater Treatment Plant 4



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 25 September - 2 October 2023
Date Reported : 6 October 2023

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.6	80.9	98.1
11:00-12:00	80.7		
12:00-13:00	80.6		
13:00-14:00	80.9		
14:00-15:00	81.0		
15:00-16:00	81.1		
16:00-17:00	81.0		
17:00-18:00	81.0	80.9	83.3
18:00-19:00	81.0		
19:00-20:00	81.0		
20:00-21:00	80.9		
21:00-22:00	80.9		
22:00-23:00	80.9		
23:00-00:00	80.9		
00:00-01:00	80.9	81.0	107.7
01:00-02:00	80.9		
02:00-03:00	81.0		
03:00-04:00	81.0		
04:00-05:00	81.0		
05:00-06:00	81.0		
06:00-07:00	81.0		
07:00-08:00	80.9	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	80.8		
09:00-10:00	81.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor
06 / 10 / 23
..... / /



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	79.9	80.0	101.4
11:00-12:00	79.8		
12:00-13:00	79.7		
13:00-14:00	79.9		
14:00-15:00	80.2		
15:00-16:00	80.0		
16:00-17:00	80.1		
17:00-18:00	80.0		
18:00-19:00	80.0	80.0	87.3
19:00-20:00	80.0		
20:00-21:00	80.0		
21:00-22:00	79.9		
22:00-23:00	79.9		
23:00-00:00	80.0		
00:00-01:00	80.1		
01:00-02:00	80.1		
02:00-03:00	80.2	80.7	92.5
03:00-04:00	80.3		
04:00-05:00	80.3		
05:00-06:00	80.4		
06:00-07:00	80.4		
07:00-08:00	81.4		
08:00-09:00	81.5		
09:00-10:00	81.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

3/7

RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.9	80.3	95.6
11:00-12:00	80.7		
12:00-13:00	80.5		
13:00-14:00	80.1		
14:00-15:00	80.0		
15:00-16:00	80.0		
16:00-17:00	80.1		
17:00-18:00	80.1	80.2	81.0
18:00-19:00	80.0		
19:00-20:00	80.1		
20:00-21:00	80.3		
21:00-22:00	80.2		
22:00-23:00	80.2		
23:00-00:00	80.2		
00:00-01:00	80.3	80.3	100.0
01:00-02:00	80.3		
02:00-03:00	80.3		
03:00-04:00	80.3		
04:00-05:00	80.3		
05:00-06:00	80.3		
06:00-07:00	80.3		
07:00-08:00	80.3	80.2	80.2
08:00-09:00	80.3		
09:00-10:00	80.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.4	80.4	109.2
11:00-12:00	80.3		
12:00-13:00	80.1		
13:00-14:00	80.1		
14:00-15:00	80.1		
15:00-16:00	80.5		
16:00-17:00	80.5		
17:00-18:00	81.1	80.7	101.9
18:00-19:00	82.1		
19:00-20:00	80.3		
20:00-21:00	80.9		
21:00-22:00	80.5		
22:00-23:00	80.5		
23:00-00:00	80.5		
00:00-01:00	80.4	80.5	94.6
01:00-02:00	80.4		
02:00-03:00	80.4		
03:00-04:00	80.3		
04:00-05:00	80.4		
05:00-06:00	80.4		
06:00-07:00	80.4		
07:00-08:00	80.5	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	80.8		
09:00-10:00	80.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September 2023		
	29-30		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.9	81.1	93.0
11:00-12:00	80.8		
12:00-13:00	80.9		
13:00-14:00	80.9		
14:00-15:00	82.3		
15:00-16:00	81.0		
16:00-17:00	81.0		
17:00-18:00	81.0	81.2	85.1
18:00-19:00	81.1		
19:00-20:00	81.1		
20:00-21:00	81.2		
21:00-22:00	81.2		
22:00-23:00	81.1		
23:00-00:00	81.2		
00:00-01:00	81.2	81.1	92.7
01:00-02:00	81.3		
02:00-03:00	81.1		
03:00-04:00	81.2		
04:00-05:00	81.3		
05:00-06:00	81.2		
06:00-07:00	81.2		
07:00-08:00	81.1	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	81.1		
09:00-10:00	81.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	September - October 2023		
	30-1		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.9	80.9	89.2
11:00-12:00	80.8		
12:00-13:00	80.8		
13:00-14:00	80.8		
14:00-15:00	81.0		
15:00-16:00	80.9		
16:00-17:00	80.9		
17:00-18:00	81.0		
18:00-19:00	81.1	81.0	81.7
19:00-20:00	81.0		
20:00-21:00	81.0		
21:00-22:00	81.0		
22:00-23:00	81.0		
23:00-00:00	81.0		
00:00-01:00	81.0		
01:00-02:00	81.0		
02:00-03:00	81.1	81.0	91.9
03:00-04:00	81.1		
04:00-05:00	81.1		
05:00-06:00	81.1		
06:00-07:00	81.1		
07:00-08:00	81.0		
08:00-09:00	80.9		
09:00-10:00	80.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (East Area)		
	October 2023		
	1-2		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	80.8	80.7	86.6
11:00-12:00	80.7		
12:00-13:00	80.7		
13:00-14:00	80.7		
14:00-15:00	80.5		
15:00-16:00	80.6		
16:00-17:00	80.8		
17:00-18:00	80.8		
18:00-19:00	80.9	80.9	81.7
19:00-20:00	80.9		
20:00-21:00	80.9		
21:00-22:00	80.9		
22:00-23:00	80.9		
23:00-00:00	80.9		
00:00-01:00	81.0		
01:00-02:00	81.1		
02:00-03:00	81.1	81.5	85.1
03:00-04:00	81.3		
04:00-05:00	81.7		
05:00-06:00	81.6		
06:00-07:00	81.6		
07:00-08:00	81.6		
08:00-09:00	81.5		
09:00-10:00	81.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 6 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	77.6	78.0	84.5
11:00-12:00	78.1		
12:00-13:00	77.8		
13:00-14:00	78.2		
14:00-15:00	78.1		
15:00-16:00	78.2		
16:00-17:00	78.2		
17:00-18:00	77.9		
18:00-19:00	78.0	78.0	83.9
19:00-20:00	78.1		
20:00-21:00	78.4		
21:00-22:00	78.2		
22:00-23:00	78.1		
23:00-00:00	77.8		
00:00-01:00	77.8		
01:00-02:00	77.7		
02:00-03:00	77.4	77.2	84.3
03:00-04:00	77.5		
04:00-05:00	77.4		
05:00-06:00	77.3		
06:00-07:00	76.3		
07:00-08:00	77.0		
08:00-09:00	77.2		
09:00-10:00	77.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

...06... / ...10... / ...23...



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September 2023		
	26-27		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:00-11:00	77.7	78.1	86.4
11:00-12:00	78.2		
12:00-13:00	77.7		
13:00-14:00	77.9		
14:00-15:00	77.9		
15:00-16:00	78.5		
16:00-17:00	78.7		
17:00-18:00	78.4		
18:00-19:00	78.8	78.6	80.4
19:00-20:00	78.9		
20:00-21:00	78.8		
21:00-22:00	78.8		
22:00-23:00	78.6		
23:00-00:00	78.4		
00:00-01:00	78.6		
01:00-02:00	78.1		
02:00-03:00	77.9	78.1	92.6
03:00-04:00	76.4		
04:00-05:00	73.4		
05:00-06:00	78.5		
06:00-07:00	78.4		
07:00-08:00	80.8		
08:00-09:00	79.0		
09:00-10:00	77.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

[Signature]

Technical Supervisor
06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	77.5	77.8	84.9
11:00-12:00	77.9		
12:00-13:00	78.1		
13:00-14:00	77.6		
14:00-15:00	77.6		
15:00-16:00	77.9		
16:00-17:00	78.2		
17:00-18:00	78.1	78.0	79.7
18:00-19:00	78.1		
19:00-20:00	78.2		
20:00-21:00	78.3		
21:00-22:00	77.6		
22:00-23:00	77.6		
23:00-00:00	77.5		
00:00-01:00	78.3	77.6	81.5
01:00-02:00	78.6		
02:00-03:00	78.0		
03:00-04:00	77.8		
04:00-05:00	77.8		
05:00-06:00	77.8		
06:00-07:00	77.6		
07:00-08:00	77.2	77.0	77.0
08:00-09:00	77.0		
09:00-10:00	77.6		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	78.1	77.9	87.5
11:00-12:00	78.1		
12:00-13:00	77.9		
13:00-14:00	78.0		
14:00-15:00	78.0		
15:00-16:00	77.9		
16:00-17:00	77.8		
17:00-18:00	77.5		
18:00-19:00	77.9	78.0	85.9
19:00-20:00	78.0		
20:00-21:00	80.2		
21:00-22:00	77.3		
22:00-23:00	77.0		
23:00-00:00	77.4		
00:00-01:00	77.7		
01:00-02:00	77.8		
02:00-03:00	77.8	77.4	87.6
03:00-04:00	77.3		
04:00-05:00	76.9		
05:00-06:00	76.7		
06:00-07:00	74.1		
07:00-08:00	78.1		
08:00-09:00	78.3		
09:00-10:00	78.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September 2023		
	29-30		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	78.2	78.3	91.7
11:00-12:00	78.1		
12:00-13:00	78.0		
13:00-14:00	77.7		
14:00-15:00	79.4		
15:00-16:00	78.5		
16:00-17:00	78.1		
17:00-18:00	77.9		
18:00-19:00	78.3	77.7	85.8
19:00-20:00	77.3		
20:00-21:00	77.3		
21:00-22:00	77.5		
22:00-23:00	77.5		
23:00-00:00	78.0		
00:00-01:00	77.9		
01:00-02:00	77.9		
02:00-03:00	77.9	78.1	83.9
03:00-04:00	77.7		
04:00-05:00	77.6		
05:00-06:00	77.7		
06:00-07:00	78.1		
07:00-08:00	78.5		
08:00-09:00	78.3		
09:00-10:00	78.4		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 6 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	September - October 2023		
	30-1		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	77.7	77.4	88.2
11:00-12:00	77.7		
12:00-13:00	74.8		
13:00-14:00	72.5		
14:00-15:00	79.0		
15:00-16:00	78.5		
16:00-17:00	78.7		
17:00-18:00	77.0		
18:00-19:00	78.1	78.2	86.5
19:00-20:00	78.2		
20:00-21:00	78.2		
21:00-22:00	78.3		
22:00-23:00	78.2		
23:00-00:00	78.1		
00:00-01:00	78.2		
01:00-02:00	78.1		
02:00-03:00	77.9	78.1	82.6
03:00-04:00	78.1		
04:00-05:00	78.0		
05:00-06:00	77.8		
06:00-07:00	78.1		
07:00-08:00	78.2		
08:00-09:00	78.5		
09:00-10:00	78.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (South Area)		
	October 2023		
	1-2		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	78.0	77.8	90.6
11:00-12:00	77.6		
12:00-13:00	77.2		
13:00-14:00	77.5		
14:00-15:00	77.4		
15:00-16:00	77.8		
16:00-17:00	78.3		
17:00-18:00	78.2		
18:00-19:00	78.4	78.4	80.1
19:00-20:00	78.0		
20:00-21:00	78.3		
21:00-22:00	78.5		
22:00-23:00	78.5		
23:00-00:00	78.6		
00:00-01:00	78.5		
01:00-02:00	78.7		
02:00-03:00	82.3	79.4	96.5
03:00-04:00	81.7		
04:00-05:00	79.2		
05:00-06:00	77.3		
06:00-07:00	77.4		
07:00-08:00	77.9		
08:00-09:00	77.9		
09:00-10:00	78.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R44	ACO	6236	00192056
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	71.1	70.8	95.4
11:00-12:00	68.9		
12:00-13:00	69.5		
13:00-14:00	70.5		
14:00-15:00	70.9		
15:00-16:00	73.2		
16:00-17:00	70.6		
17:00-18:00	70.1		
18:00-19:00	70.3	69.7	87.5
19:00-20:00	69.7		
20:00-21:00	69.9		
21:00-22:00	69.9		
22:00-23:00	69.6		
23:00-00:00	69.6		
00:00-01:00	69.0		
01:00-02:00	69.1		
02:00-03:00	69.1	69.0	87.9
03:00-04:00	69.0		
04:00-05:00	68.9		
05:00-06:00	68.6		
06:00-07:00	68.6		
07:00-08:00	69.0		
08:00-09:00	69.7		
09:00-10:00	69.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

2/7

RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	70.0	69.7	90.9
11:00-12:00	69.4		
12:00-13:00	68.4		
13:00-14:00	70.9		
14:00-15:00	68.9		
15:00-16:00	70.0		
16:00-17:00	69.8		
17:00-18:00	70.0		
18:00-19:00	69.7	69.2	75.7
19:00-20:00	69.6		
20:00-21:00	69.0		
21:00-22:00	68.9		
22:00-23:00	68.8		
23:00-00:00	68.9		
00:00-01:00	69.2		
01:00-02:00	69.1		
02:00-03:00	68.9	69.3	96.3
03:00-04:00	67.9		
04:00-05:00	67.3		
05:00-06:00	68.7		
06:00-07:00	68.8		
07:00-08:00	72.1		
08:00-09:00	70.3		
09:00-10:00	68.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 25 September - 2 October 2023
Date Reported : 6 October 2023

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	70.1	69.3	88.8
11:00-12:00	68.8		
12:00-13:00	69.0		
13:00-14:00	68.7		
14:00-15:00	68.7		
15:00-16:00	68.4		
16:00-17:00	69.8		
17:00-18:00	70.2		
18:00-19:00	69.5	69.1	76.2
19:00-20:00	69.7		
20:00-21:00	69.7		
21:00-22:00	68.7		
22:00-23:00	68.0		
23:00-00:00	68.1		
00:00-01:00	69.0		
01:00-02:00	69.6		
02:00-03:00	69.3	69.7	92.0
03:00-04:00	69.3		
04:00-05:00	69.4		
05:00-06:00	69.6		
06:00-07:00	68.5		
07:00-08:00	68.7		
08:00-09:00	70.0		
09:00-10:00	71.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	70.8	72.1	100.2
11:00-12:00	68.6		
12:00-13:00	68.2		
13:00-14:00	71.2		
14:00-15:00	75.7		
15:00-16:00	73.6		
16:00-17:00	74.0		
17:00-18:00	68.3	69.4	80.6
18:00-19:00	68.3		
19:00-20:00	69.3		
20:00-21:00	70.8		
21:00-22:00	68.9		
22:00-23:00	69.0		
23:00-00:00	69.1		
00:00-01:00	69.2	70.4	85.2
01:00-02:00	70.0		
02:00-03:00	70.1		
03:00-04:00	69.0		
04:00-05:00	68.6		
05:00-06:00	68.5		
06:00-07:00	67.8		
07:00-08:00	68.9	71.2	85.2
08:00-09:00	71.2		
09:00-10:00	74.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 25 September - 2 October 2023
Date Reported : 6 October 2023

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September 2023		
	29-30		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	72.0	70.8	96.3
11:00-12:00	70.1		
12:00-13:00	70.0		
13:00-14:00	71.6		
14:00-15:00	70.8		
15:00-16:00	71.0		
16:00-17:00	69.9		
17:00-18:00	70.1	69.8	85.7
18:00-19:00	71.1		
19:00-20:00	69.8		
20:00-21:00	69.4		
21:00-22:00	68.9		
22:00-23:00	69.3		
23:00-00:00	70.1		
00:00-01:00	70.2	69.2	78.7
01:00-02:00	69.7		
02:00-03:00	68.8		
03:00-04:00	68.7		
04:00-05:00	68.8		
05:00-06:00	68.8		
06:00-07:00	68.6		
07:00-08:00	69.1	70.3	70.3
08:00-09:00	70.1		
09:00-10:00	70.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor
06 / 10 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

6/7

RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (West Area)		
	September - October 2023		
	30-1		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	70.5	70.7	91.0
11:00-12:00	69.9		
12:00-13:00	68.4		
13:00-14:00	70.9		
14:00-15:00	72.9		
15:00-16:00	71.0		
16:00-17:00	70.7		
17:00-18:00	70.0	68.8	73.2
18:00-19:00	69.2		
19:00-20:00	68.6		
20:00-21:00	68.7		
21:00-22:00	68.8		
22:00-23:00	68.8		
23:00-00:00	68.7		
00:00-01:00	68.6	68.9	87.9
01:00-02:00	68.7		
02:00-03:00	68.8		
03:00-04:00	68.8		
04:00-05:00	68.8		
05:00-06:00	68.8		
06:00-07:00	68.9		
07:00-08:00	68.8		
08:00-09:00	68.9		
09:00-10:00	69.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (West Area)		
	October 2023		
	1-2		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	70.1	69.6	82.1
11:00-12:00	70.4		
12:00-13:00	70.4		
13:00-14:00	70.4		
14:00-15:00	69.1		
15:00-16:00	68.7		
16:00-17:00	68.7		
17:00-18:00	68.8	68.8	81.3
18:00-19:00	68.7		
19:00-20:00	68.7		
20:00-21:00	68.6		
21:00-22:00	68.9		
22:00-23:00	68.6		
23:00-00:00	68.9		
00:00-01:00	68.7	69.3	81.7
01:00-02:00	69.2		
02:00-03:00	69.4		
03:00-04:00	69.1		
04:00-05:00	69.1		
05:00-06:00	69.6		
06:00-07:00	69.3		
07:00-08:00	69.0	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	69.7		
09:00-10:00	69.1		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R29	ACO	6236	00192041
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen,
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 25 September - 2 October 2023
Date Reported : 6 October 2023

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	69.3	67.5	94.7
11:00-12:00	66.3		
12:00-13:00	66.3		
13:00-14:00	67.0		
14:00-15:00	67.4		
15:00-16:00	68.3		
16:00-17:00	68.0		
17:00-18:00	67.0	67.5	75.8
18:00-19:00	67.2		
19:00-20:00	67.0		
20:00-21:00	67.5		
21:00-22:00	67.7		
22:00-23:00	67.4		
23:00-00:00	67.6		
00:00-01:00	67.4	67.3	80.6
01:00-02:00	67.9		
02:00-03:00	67.5		
03:00-04:00	67.6		
04:00-05:00	67.8		
05:00-06:00	67.6		
06:00-07:00	67.1		
07:00-08:00	66.6	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	66.7		
09:00-10:00	67.1		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Mueang, Rayong 21000 Date Reported : 6 October 2023
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	67.7	66.4	79.8
11:00-12:00	65.9		
12:00-13:00	65.6		
13:00-14:00	66.5		
14:00-15:00	66.4		
15:00-16:00	66.4		
16:00-17:00	66.1		
17:00-18:00	66.3	66.6	88.9
18:00-19:00	66.4		
19:00-20:00	67.9		
20:00-21:00	67.0		
21:00-22:00	66.2		
22:00-23:00	66.4		
23:00-00:00	66.1		
00:00-01:00	66.5	67.1	94.2
01:00-02:00	66.4		
02:00-03:00	66.4		
03:00-04:00	66.2		
04:00-05:00	66.1		
05:00-06:00	66.4		
06:00-07:00	66.6		
07:00-08:00	69.7	67.6	94.2
08:00-09:00	67.6		
09:00-10:00	66.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor
06 / 16 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	66.8	67.0	89.4
11:00-12:00	66.1		
12:00-13:00	66.1		
13:00-14:00	66.4		
14:00-15:00	66.2		
15:00-16:00	66.2		
16:00-17:00	69.1		
17:00-18:00	68.0		
18:00-19:00	66.5	66.3	77.4
19:00-20:00	66.2		
20:00-21:00	66.3		
21:00-22:00	66.1		
22:00-23:00	66.2		
23:00-00:00	66.2		
00:00-01:00	66.4		
01:00-02:00	66.7		
02:00-03:00	66.6	67.8	93.7
03:00-04:00	66.8		
04:00-05:00	66.8		
05:00-06:00	66.9		
06:00-07:00	66.7		
07:00-08:00	66.7		
08:00-09:00	67.8		
09:00-10:00	71.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dBi]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
In Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 16 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September 2023		
	28-29		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	69.9	69.2	94.3
11:00-12:00	66.2		
12:00-13:00	66.0		
13:00-14:00	68.6		
14:00-15:00	71.9		
15:00-16:00	71.9		
16:00-17:00	68.1		
17:00-18:00	66.0		
18:00-19:00	66.0	67.2	82.4
19:00-20:00	67.9		
20:00-21:00	68.5		
21:00-22:00	66.8		
22:00-23:00	66.8		
23:00-00:00	67.1		
00:00-01:00	67.1		
01:00-02:00	67.1		
02:00-03:00	66.8	67.1	83.9
03:00-04:00	66.8		
04:00-05:00	66.8		
05:00-06:00	66.8		
06:00-07:00	66.5		
07:00-08:00	66.8		
08:00-09:00	67.2		
09:00-10:00	68.6		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September 2023		
	29-30		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	67.1	67.1	83.4
11:00-12:00	66.6		
12:00-13:00	66.6		
13:00-14:00	67.1		
14:00-15:00	67.7		
15:00-16:00	68.4		
16:00-17:00	66.6		
17:00-18:00	66.7		
18:00-19:00	67.6	67.4	82.1
19:00-20:00	67.4		
20:00-21:00	67.3		
21:00-22:00	67.3		
22:00-23:00	67.5		
23:00-00:00	67.5		
00:00-01:00	67.5		
01:00-02:00	67.3		
02:00-03:00	67.4	67.3	83.3
03:00-04:00	67.1		
04:00-05:00	67.1		
05:00-06:00	67.3		
06:00-07:00	67.5		
07:00-08:00	67.2		
08:00-09:00	67.1		
09:00-10:00	68.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 10 / 23



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	September - October 2023		
	30-1		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	68.0	67.7	82.1
11:00-12:00	67.2		
12:00-13:00	66.3		
13:00-14:00	67.2		
14:00-15:00	68.4		
15:00-16:00	68.2		
16:00-17:00	68.1		
17:00-18:00	67.3		
18:00-19:00	67.1	67.5	77.1
19:00-20:00	66.9		
20:00-21:00	67.6		
21:00-22:00	67.7		
22:00-23:00	67.7		
23:00-00:00	67.6		
00:00-01:00	67.5		
01:00-02:00	67.7		
02:00-03:00	68.2	68.1	78.7
03:00-04:00	68.1		
04:00-05:00	68.1		
05:00-06:00	68.0		
06:00-07:00	68.2		
07:00-08:00	68.1		
08:00-09:00	68.3		
09:00-10:00	68.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 29



RY145/09/66

193/1/66

Noise Level Report

Project : Ultra Clean Fule (UCF) Diesel Euro V Sampling Date : 25 September - 2 October 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 6 October 2023
Mueang, Rayong 21000
Client Name/Address : Hyundai Engineering Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wastewater Treatment Plant 4 Area (North Area)		
	October 2023		
	1-2		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	69.1	68.0	87.8
11:00-12:00	68.1		
12:00-13:00	67.9		
13:00-14:00	68.5		
14:00-15:00	68.2		
15:00-16:00	67.7		
16:00-17:00	66.9		
17:00-18:00	66.9		
18:00-19:00	67.9	67.4	74.9
19:00-20:00	67.3		
20:00-21:00	67.0		
21:00-22:00	66.9		
22:00-23:00	66.8		
23:00-00:00	66.7		
00:00-01:00	67.9		
01:00-02:00	68.3		
02:00-03:00	68.3	68.3	82.7
03:00-04:00	69.2		
04:00-05:00	67.7		
05:00-06:00	68.1		
06:00-07:00	68.0		
07:00-08:00	67.9		
08:00-09:00	68.2		
09:00-10:00	68.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 496/23		24 September 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

06 / 10 / 23

Hydrogen Manufacturing Unit



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	21-22		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:00-11:00	75.5	72.7	94.8
11:00-12:00	72.5		
12:00-13:00	71.0		
13:00-14:00	73.2		
14:00-15:00	72.2		
15:00-16:00	72.0		
16:00-17:00	71.9		
17:00-18:00	71.8		
18:00-19:00	71.6	72.2	80.5
19:00-20:00	72.0		
20:00-21:00	72.4		
21:00-22:00	72.3		
22:00-23:00	72.3		
23:00-00:00	72.4		
00:00-01:00	72.3		
01:00-02:00	72.2		
02:00-03:00	71.6	72.0	85.6
03:00-04:00	71.5		
04:00-05:00	71.6		
05:00-06:00	71.6		
06:00-07:00	71.6		
07:00-08:00	72.2		
08:00-09:00	72.9		
09:00-10:00	73.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
Tel : (662) 939-4370-72. Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

2/7

RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	22-23		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	73.1	72.1	86.5
11:00-12:00	71.9		
12:00-13:00	70.9		
13:00-14:00	71.5		
14:00-15:00	72.3		
15:00-16:00	72.6		
16:00-17:00	72.6		
17:00-18:00	71.9		
18:00-19:00	72.2	72.1	86.1
19:00-20:00	72.2		
20:00-21:00	72.3		
21:00-22:00	72.0		
22:00-23:00	72.0		
23:00-00:00	72.1		
00:00-01:00	72.1		
01:00-02:00	71.9	71.8	93.2
02:00-03:00	71.8		
03:00-04:00	72.0		
04:00-05:00	71.6		
05:00-06:00	71.7		
06:00-07:00	71.6		
07:00-08:00	71.5		
08:00-09:00	72.3		
09:00-10:00	72.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations.

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	23-24		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	71.6	71.6	89.5
11:00-12:00	71.0		
12:00-13:00	70.8		
13:00-14:00	71.5		
14:00-15:00	71.5		
15:00-16:00	72.2		
16:00-17:00	72.2		
17:00-18:00	71.6		
18:00-19:00	71.6	71.4	83.1
19:00-20:00	71.9		
20:00-21:00	71.7		
21:00-22:00	71.3		
22:00-23:00	71.5		
23:00-00:00	71.3		
00:00-01:00	71.1		
01:00-02:00	71.0	72.0	90.0
02:00-03:00	71.0		
03:00-04:00	71.0		
04:00-05:00	71.2		
05:00-06:00	71.2		
06:00-07:00	71.2		
07:00-08:00	71.3		
08:00-09:00	72.3		
09:00-10:00	75.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	24-25		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	76.7	73.5	90.4
11:00-12:00	72.7		
12:00-13:00	70.2		
13:00-14:00	71.5		
14:00-15:00	74.4		
15:00-16:00	74.7		
16:00-17:00	72.6		
17:00-18:00	71.9		
18:00-19:00	71.2	71.3	84.0
19:00-20:00	71.6		
20:00-21:00	71.6		
21:00-22:00	71.3		
22:00-23:00	71.1		
23:00-00:00	71.2		
00:00-01:00	71.3		
01:00-02:00	71.2	71.9	94.6
02:00-03:00	71.0		
03:00-04:00	71.1		
04:00-05:00	71.1		
05:00-06:00	71.3		
06:00-07:00	71.6		
07:00-08:00	71.6		
08:00-09:00	73.1		
09:00-10:00	73.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor
04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	25-26		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:00-11:00	75.4	72.6	101.7
11:00-12:00	70.8		
12:00-13:00	70.5		
13:00-14:00	71.2		
14:00-15:00	72.9		
15:00-16:00	72.0		
16:00-17:00	74.1		
17:00-18:00	71.3	72.0	82.5
18:00-19:00	71.1		
19:00-20:00	71.8		
20:00-21:00	71.3		
21:00-22:00	72.4		
22:00-23:00	72.6		
23:00-00:00	72.4		
00:00-01:00	72.1		
01:00-02:00	72.1	71.6	87.2
02:00-03:00	72.1		
03:00-04:00	71.7		
04:00-05:00	71.8		
05:00-06:00	71.4		
06:00-07:00	70.7		
07:00-08:00	71.0		
08:00-09:00	71.4		
09:00-10:00	72.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor
04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	71.3	70.9	84.3
11:00-12:00	70.6		
12:00-13:00	70.5		
13:00-14:00	71.2		
14:00-15:00	72.9		
15:00-16:00	72.0		
16:00-17:00	74.1		
17:00-18:00	71.3	71.8	73.9
18:00-19:00	71.1		
19:00-20:00	71.8		
20:00-21:00	71.3		
21:00-22:00	72.4		
22:00-23:00	72.6		
23:00-00:00	72.4		
00:00-01:00	72.1	74.9	95.7
01:00-02:00	72.1		
02:00-03:00	72.1		
03:00-04:00	71.7		
04:00-05:00	71.8		
05:00-06:00	71.4		
06:00-07:00	70.7		
07:00-08:00	71.0	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	71.4		
09:00-10:00	72.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (East Area)		
	November 2023		
	27-28		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:00-11:00	79.5	74.7	97.9
11:00-12:00	74.7		
12:00-13:00	70.6		
13:00-14:00	70.8		
14:00-15:00	71.9		
15:00-16:00	77.2		
16:00-17:00	71.5		
17:00-18:00	71.0	71.5	85.8
18:00-19:00	72.5		
19:00-20:00	70.9		
20:00-21:00	71.9		
21:00-22:00	71.6		
22:00-23:00	71.2		
23:00-00:00	71.7		
00:00-01:00	71.5		
01:00-02:00	70.5	71.3	88.2
02:00-03:00	70.6		
03:00-04:00	71.2		
04:00-05:00	71.3		
05:00-06:00	71.3		
06:00-07:00	71.4		
07:00-08:00	71.0		
08:00-09:00	71.8		
09:00-10:00	71.3		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R21	ACO	6236	00182004
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.1		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	21-22		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	67.9	65.6	86.8
11:00-12:00	63.5		
12:00-13:00	61.8		
13:00-14:00	65.5		
14:00-15:00	65.7		
15:00-16:00	65.7		
16:00-17:00	66.1		
17:00-18:00	66.0		
18:00-19:00	67.0	64.0	97.9
19:00-20:00	64.9		
20:00-21:00	63.9		
21:00-22:00	63.3		
22:00-23:00	62.5		
23:00-00:00	62.6		
00:00-01:00	62.8		
01:00-02:00	62.7		
02:00-03:00	62.7	65.9	90.6
03:00-04:00	62.8		
04:00-05:00	62.6		
05:00-06:00	62.9		
06:00-07:00	63.2		
07:00-08:00	64.4		
08:00-09:00	69.3		
09:00-10:00	70.2		
Standard		Less Than 90.0 ⁽¹⁾	Less Than 140.0 ⁽¹⁾ , 115.0 ⁽²⁾
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	22-23		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	67.0	66.8	94.7
11:00-12:00	64.4		
12:00-13:00	63.4		
13:00-14:00	67.3		
14:00-15:00	68.1		
15:00-16:00	67.6		
16:00-17:00	67.1		
17:00-18:00	67.2		
18:00-19:00	64.7	64.1	103.2
19:00-20:00	64.1		
20:00-21:00	66.0		
21:00-22:00	63.5		
22:00-23:00	63.5		
23:00-00:00	63.7		
00:00-01:00	63.6		
01:00-02:00	63.4		
02:00-03:00	63.2	65.1	87.4
03:00-04:00	63.2		
04:00-05:00	63.0		
05:00-06:00	63.0		
06:00-07:00	64.1		
07:00-08:00	63.5		
08:00-09:00	68.7		
09:00-10:00	67.6		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	23-24		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	66.4	66.3	83.7
11:00-12:00	63.0		
12:00-13:00	63.5		
13:00-14:00	67.8		
14:00-15:00	67.3		
15:00-16:00	68.0		
16:00-17:00	65.7		
17:00-18:00	66.3		
18:00-19:00	64.3	63.6	89.0
19:00-20:00	64.3		
20:00-21:00	64.2		
21:00-22:00	63.7		
22:00-23:00	62.9		
23:00-00:00	62.9		
00:00-01:00	62.9		
01:00-02:00	63.0		
02:00-03:00	62.6	65.2	101.0
03:00-04:00	62.6		
04:00-05:00	62.6		
05:00-06:00	62.7		
06:00-07:00	64.8		
07:00-08:00	64.0		
08:00-09:00	68.5		
09:00-10:00	68.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	24-25		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:00-11:00	65.0	66.2	84.3
11:00-12:00	62.8		
12:00-13:00	64.3		
13:00-14:00	68.7		
14:00-15:00	67.6		
15:00-16:00	66.5		
16:00-17:00	66.2		
17:00-18:00	65.6		
18:00-19:00	63.4	62.7	84.8
19:00-20:00	63.3		
20:00-21:00	62.9		
21:00-22:00	62.5		
22:00-23:00	62.5		
23:00-00:00	62.6		
00:00-01:00	62.4		
01:00-02:00	62.2	66.2	93.3
02:00-03:00	62.3		
03:00-04:00	62.2		
04:00-05:00	62.3		
05:00-06:00	66.3		
06:00-07:00	68.1		
07:00-08:00	67.4		
08:00-09:00	68.1		
09:00-10:00	67.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor
04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	64.1	66.1	86.6
11:00-12:00	62.2		
12:00-13:00	66.9		
13:00-14:00	66.1		
14:00-15:00	70.3		
15:00-16:00	65.7		
16:00-17:00	64.3		
17:00-18:00	64.0	63.0	81.4
18:00-19:00	65.3		
19:00-20:00	63.6		
20:00-21:00	63.0		
21:00-22:00	62.6		
22:00-23:00	61.9		
23:00-00:00	62.0		
00:00-01:00	62.1	66.5	94.6
01:00-02:00	62.1		
02:00-03:00	61.9		
03:00-04:00	61.9		
04:00-05:00	61.9		
05:00-06:00	62.1		
06:00-07:00	62.9		
07:00-08:00	68.5	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	70.1		
09:00-10:00	70.2		
Standard			
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	62.3	63.5	85.6
11:00-12:00	61.4		
12:00-13:00	64.8		
13:00-14:00	66.3		
14:00-15:00	62.8		
15:00-16:00	62.8		
16:00-17:00	62.4		
17:00-18:00	62.3	61.9	85.0
18:00-19:00	62.2		
19:00-20:00	61.8		
20:00-21:00	61.8		
21:00-22:00	62.0		
22:00-23:00	61.9		
23:00-00:00	61.9		
00:00-01:00	61.9	63.8	88.7
01:00-02:00	61.9		
02:00-03:00	61.9		
03:00-04:00	61.9		
04:00-05:00	61.9		
05:00-06:00	62.0		
06:00-07:00	63.4		
07:00-08:00	63.6	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:00-09:00	67.1		
09:00-10:00	65.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (South Area)		
	November 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:00-11:00	63.2	66.3	99.8
11:00-12:00	61.9		
12:00-13:00	63.2		
13:00-14:00	66.9		
14:00-15:00	69.6		
15:00-16:00	67.2		
16:00-17:00	63.8		
17:00-18:00	68.2		
18:00-19:00	62.3	62.1	86.5
19:00-20:00	62.3		
20:00-21:00	62.1		
21:00-22:00	62.1		
22:00-23:00	62.0		
23:00-00:00	62.0		
00:00-01:00	61.8		
01:00-02:00	61.9		
02:00-03:00	61.8	63.2	88.2
03:00-04:00	62.1		
04:00-05:00	62.2		
05:00-06:00	62.1		
06:00-07:00	62.4		
07:00-08:00	64.3		
08:00-09:00	65.3		
09:00-10:00	64.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R30	ACO	6236	00192042
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	21-22		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:30-11:30	77.5	72.0	95.6
11:30-12:30	67.9		
12:30-13:30	64.5		
13:30-14:30	70.5		
14:30-15:30	71.1		
15:30-16:30	71.3		
16:30-17:30	71.1		
17:30-18:30	70.3		
18:30-19:30	70.0	65.3	88.8
19:30-20:30	66.8		
20:30-21:30	66.9		
21:30-22:30	64.9		
22:30-23:30	62.0		
23:30-00:30	60.1		
00:30-01:30	60.1		
01:30-02:30	60.1		
02:30-03:30	60.1	71.4	98.0
03:30-04:30	60.1		
04:30-05:30	60.2		
05:30-06:30	60.5		
06:30-07:30	60.7		
07:30-08:30	65.9		
08:30-09:30	77.9		
09:30-10:30	76.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	22-23		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:30-11:30	76.7	73.2	96.1
11:30-12:30	69.7		
12:30-13:30	67.2		
13:30-14:30	72.5		
14:30-15:30	75.7		
15:30-16:30	74.5		
16:30-17:30	69.7		
17:30-18:30	70.8	66.1	86.0
18:30-19:30	69.3		
19:30-20:30	69.1		
20:30-21:30	67.1		
21:30-22:30	65.2		
22:30-23:30	63.0		
23:30-00:30	62.7		
00:30-01:30	62.6	68.4	102.8
01:30-02:30	61.9		
02:30-03:30	59.9		
03:30-04:30	59.9		
04:30-05:30	60.0		
05:30-06:30	60.2		
06:30-07:30	61.0		
07:30-08:30	67.7	74.5	
08:30-09:30	72.2		
09:30-10:30	74.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.



Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	23-24		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:30-11:30	81.4	78.2	99.4
11:30-12:30	77.3		
12:30-13:30	74.4		
13:30-14:30	76.3		
14:30-15:30	79.6		
15:30-16:30	76.3		
16:30-17:30	78.2		
17:30-18:30	77.9		
18:30-19:30	71.0	72.9	97.8
19:30-20:30	78.0		
20:30-21:30	78.2		
21:30-22:30	68.5		
22:30-23:30	67.2		
23:30-00:30	61.4		
00:30-01:30	59.8		
01:30-02:30	59.7		
02:30-03:30	59.9	70.2	103.9
03:30-04:30	60.0		
04:30-05:30	60.0		
05:30-06:30	60.2		
06:30-07:30	63.2		
07:30-08:30	70.0		
08:30-09:30	74.6		
09:30-10:30	75.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

06 / 12 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol. Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

4/7

RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	24-25		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
10:30-11:30	80.6	77.6	100.5
11:30-12:30	77.1		
12:30-13:30	69.6		
13:30-14:30	76.2		
14:30-15:30	76.2		
15:30-16:30	76.9		
16:30-17:30	79.5		
17:30-18:30	78.2		
18:30-19:30	72.0	67.0	91.7
19:30-20:30	70.1		
20:30-21:30	67.8		
21:30-22:30	65.6		
22:30-23:30	61.0		
23:30-00:30	59.8		
00:30-01:30	59.8		
01:30-02:30	59.6		
02:30-03:30	59.6	66.2	91.7
03:30-04:30	59.7		
04:30-05:30	59.6		
05:30-06:30	60.0		
06:30-07:30	65.1		
07:30-08:30	65.6		
08:30-09:30	69.3		
09:30-10:30	71.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	25-26		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:30-11:30	71.9	73.8	101.7
11:30-12:30	68.6		
12:30-13:30	65.9		
13:30-14:30	71.9		
14:30-15:30	73.1		
15:30-16:30	74.6		
16:30-17:30	75.6		
17:30-18:30	78.0	68.9	99.5
18:30-19:30	76.2		
19:30-20:30	69.1		
20:30-21:30	67.7		
21:30-22:30	63.9		
22:30-23:30	61.5		
23:30-00:30	60.0		
00:30-01:30	59.8	69.2	97.5
01:30-02:30	59.7		
02:30-03:30	59.8		
03:30-04:30	59.6		
04:30-05:30	59.5		
05:30-06:30	59.8		
06:30-07:30	60.1		
07:30-08:30	66.9	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
08:30-09:30	71.6		
09:30-10:30	76.2		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:30-11:30	78.2	73.5	99.2
11:30-12:30	70.3		
12:30-13:30	66.9		
13:30-14:30	72.1		
14:30-15:30	74.8		
15:30-16:30	74.5		
16:30-17:30	72.7		
17:30-18:30	67.8		
18:30-19:30	63.9	61.1	82.6
19:30-20:30	63.1		
20:30-21:30	60.8		
21:30-22:30	59.4		
22:30-23:30	59.6		
23:30-00:30	59.5		
00:30-01:30	59.6		
01:30-02:30	59.5		
02:30-03:30	59.6	66.6	97.7
03:30-04:30	59.7		
04:30-05:30	59.6		
05:30-06:30	59.9		
06:30-07:30	59.8		
07:30-08:30	64.1		
08:30-09:30	70.1		
09:30-10:30	72.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (West Area)		
	November 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
10:30-11:30	72.3	75.1	103.4
11:30-12:30	68.8		
12:30-13:30	65.8		
13:30-14:30	71.6		
14:30-15:30	77.3		
15:30-16:30	78.3		
16:30-17:30	76.3		
17:30-18:30	77.1		
18:30-19:30	70.2	63.8	104.3
19:30-20:30	64.2		
20:30-21:30	60.2		
21:30-22:30	60.2		
22:30-23:30	60.1		
23:30-00:30	60.2		
00:30-01:30	60.1		
01:30-02:30	60.1		
02:30-03:30	60.0	68.4	95.6
03:30-04:30	60.1		
04:30-05:30	60.3		
05:30-06:30	60.4		
06:30-07:30	60.2		
07:30-08:30	65.1		
08:30-09:30	71.9		
09:30-10:30	75.0		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R18	ACO	6236	00172065
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization, Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	21-22		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	74.0	71.4	98.7
10:30-11:30	70.3		
11:30-12:30	65.5		
12:30-13:30	63.3		
13:30-14:30	67.9		
14:30-15:30	72.9		
15:30-16:30	75.3		
16:30-17:30	69.4	63.9	90.3
17:30-18:30	68.2		
18:30-19:30	63.5		
19:30-20:30	64.8		
20:30-21:30	63.9		
21:30-22:30	61.4		
22:30-23:30	61.1		
23:30-00:30	61.1	63.9	92.2
00:30-01:30	61.1		
01:30-02:30	61.1		
02:30-03:30	61.4		
03:30-04:30	60.9		
04:30-05:30	60.9		
05:30-06:30	61.3		
06:30-07:30	61.7	63.9	92.2
07:30-08:30	64.4		
08:30-09:30	69.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	22-23		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	70.7	70.9	100.8
10:30-11:30	69.1		
11:30-12:30	65.7		
12:30-13:30	67.0		
13:30-14:30	73.2		
14:30-15:30	74.2		
15:30-16:30	70.1		
16:30-17:30	70.5		
17:30-18:30	70.6	68.3	96.2
18:30-19:30	67.6		
19:30-20:30	70.6		
20:30-21:30	69.7		
21:30-22:30	67.4		
22:30-23:30	65.7		
23:30-00:30	65.4		
00:30-01:30	65.3		
01:30-02:30	65.1	66.4	92.2
02:30-03:30	65.2		
03:30-04:30	65.0		
04:30-05:30	65.1		
05:30-06:30	65.3		
06:30-07:30	65.6		
07:30-08:30	68.0		
08:30-09:30	69.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	23-24		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	70.4	69.5	95.1
10:30-11:30	71.0		
11:30-12:30	66.3		
12:30-13:30	65.7		
13:30-14:30	70.5		
14:30-15:30	69.8		
15:30-16:30	69.5		
16:30-17:30	69.9	67.5	97.5
17:30-18:30	71.1		
18:30-19:30	67.1		
19:30-20:30	69.3		
20:30-21:30	67.8		
21:30-22:30	64.8		
22:30-23:30	64.9		
23:30-00:30	65.1	68.3	108.1
00:30-01:30	65.2		
01:30-02:30	64.9		
02:30-03:30	64.7		
03:30-04:30	65.0		
04:30-05:30	64.7		
05:30-06:30	64.8		
06:30-07:30	65.6	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
07:30-08:30	69.2		
08:30-09:30	74.4		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com, www.spscon.com

4/7

RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	24-25		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	78.8	76.2	101.5
10:30-11:30	76.2		
11:30-12:30	67.0		
12:30-13:30	71.5		
13:30-14:30	77.4		
14:30-15:30	78.9		
15:30-16:30	77.5		
16:30-17:30	68.2	69.6	93.1
17:30-18:30	70.0		
18:30-19:30	70.7		
19:30-20:30	74.1		
20:30-21:30	71.2		
21:30-22:30	65.4		
22:30-23:30	64.7		
23:30-00:30	65.2		
00:30-01:30	64.8	69.4	96.8
01:30-02:30	64.7		
02:30-03:30	64.6		
03:30-04:30	64.9		
04:30-05:30	64.7		
05:30-06:30	65.1		
06:30-07:30	65.6		
07:30-08:30	70.8		
08:30-09:30	75.8		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	25-26		
	L_{eq} 1 hr [dB(A)]	L_{eq} 8 hr [dB(A)]	L_{max} [dB(A)]
09:30-10:30	73.2	73.6	101.5
10:30-11:30	72.1		
11:30-12:30	66.2		
12:30-13:30	66.1		
13:30-14:30	71.1		
14:30-15:30	74.5		
15:30-16:30	78.1		
16:30-17:30	75.0		
17:30-18:30	72.3	67.3	93.1
18:30-19:30	66.2		
19:30-20:30	68.1		
20:30-21:30	67.2		
21:30-22:30	64.1		
22:30-23:30	64.1		
23:30-00:30	64.1		
00:30-01:30	64.1	67.0	96.8
01:30-02:30	64.1		
02:30-03:30	64.5		
03:30-04:30	64.2		
04:30-05:30	64.1		
05:30-06:30	64.5		
06:30-07:30	65.1		
07:30-08:30	67.5		
08:30-09:30	72.5		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations,

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	26-27		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	74.1	73.3	98.5
10:30-11:30	73.2		
11:30-12:30	71.7		
12:30-13:30	74.0		
13:30-14:30	72.3		
14:30-15:30	76.8		
15:30-16:30	72.0		
16:30-17:30	66.9	64.3	69.5
17:30-18:30	65.2		
18:30-19:30	64.9		
19:30-20:30	63.9		
20:30-21:30	64.0		
21:30-22:30	64.1		
22:30-23:30	64.0		
23:30-00:30	63.9	66.1	94.0
00:30-01:30	64.2		
01:30-02:30	64.2		
02:30-03:30	64.4		
03:30-04:30	64.3		
04:30-05:30	64.3		
05:30-06:30	64.7		
06:30-07:30	64.7	68.3	94.0
07:30-08:30	68.3		
08:30-09:30	69.5	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Standard			
Sound Level Meter Data			
Calibrate Sheet No.: Noise R 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations.

Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

Technical Supervisor

04 / 12 / 23



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

7/7

RY264/11/66

R-Pro-1091-2/2021

Noise Level Report

Project : HMU-2 Sampling Date : 21-28 November 2023
Project Location : 299 Moo 5, Sukhumvit Road, Choeng Noen, Date Reported : 4 December 2023
Mueang, Rayong 21000
Client Name/Address : Wison Engineering Ltd.
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hydrogen Manufacturing Unit Area (North Area)		
	November 2023		
	27-28		
	L _{eq} 1 hr [dB(A)]	L _{eq} 8 hr [dB(A)]	L _{max} [dB(A)]
09:30-10:30	73.1	70.6	95.8
10:30-11:30	73.9		
11:30-12:30	68.4		
12:30-13:30	67.0		
13:30-14:30	70.1		
14:30-15:30	71.1		
15:30-16:30	67.9		
16:30-17:30	68.3	64.6	90.0
17:30-18:30	66.5		
18:30-19:30	65.1		
19:30-20:30	64.4		
20:30-21:30	63.8		
21:30-22:30	63.8		
22:30-23:30	64.0		
23:30-00:30	64.1	66.7	95.6
00:30-01:30	64.1		
01:30-02:30	64.0		
02:30-03:30	64.2		
03:30-04:30	64.2		
04:30-05:30	64.3		
05:30-06:30	64.5		
06:30-07:30	66.0	Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
07:30-08:30	70.3		
08:30-09:30	69.7		
Standard		Less Than 90.0 ^[1]	Less Than 140.0 ^[1] , 115.0 ^[2]
Sound Level Meter Data			
Calibrate Sheet No.: Noise R. 679/23		20 November 2023	
SLM No.	Brand	Model	Serial No.
ACO-R33	ACO	6236	00192045
Actual Reading [dB]			
Before Adjustment		After Adjustment	
94.0		94.0	

Remark:

This Report is not Included in the Results of Measurement and Analysis Certified in Accordance with the Ministerial Regulations, Registration and Service Authorization. Occupational Health and Work Environment, B.E. 2564 (2021)

Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)

Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.
Do not copy partial of this measurement report without official approval.

Technical Supervisor

04/12/23