

คุณภาพอากาศจากแหล่งกำเนิด



Request No. LA66-0435

Report No. 6605-0132

### TEST REPORT

CUSTOMER : NPC Safety and Environmental Service Co., Ltd.  
ADDRESS : 20/9 Pakomsongkrohrad Rd., T. Maptaphut A. Muangrayong, Rayong 21150  
SAMPLE SOURCE : PTT Asahi Chemical Co., Ltd.  
SAMPLE POINT : ERU Stack (AOG)  
SAMPLING DATE : 19/04/2023 SAMPLE NO. : 01766-01767, 01769  
RECEIVED DATE : 28/04/2023 SAMPLING TIME : 10:00-10:42  
TESTED DATE : 28/04/2023-06/05/2023 REPORTED DATE : 11/05/2023

#### STACK DESCRIPTION

Height :	60.30 m	Type of Process :	Combustion
Diameter :	4.30 m	Type Of Fuel :	Natural Gas
Temperature :	180.00 °C	Oxygen Content :	5.22 %
Air Velocity :	17.38 m/s	Barometric Pressure :	757.75 mm.Hg
Flow rate <sup>1</sup> :	143.42 m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	13.28 %		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>1</sup>		STD	UNIT
			5.22 % O <sub>2</sub>	7 % O <sub>2</sub>		
Particulate (TSP)	Isokinetic, Gravimetric	10:00-10:42	0.6	0.5	320 <sup>1</sup> , 32 <sup>2</sup>	mg/m <sup>3</sup>
			0.0861	*	4.62 <sup>2</sup>	g/s
Sulfur Dioxide (SO <sub>2</sub> )	Barium Thorin Titrimetric	10:10-10:40	<3.4	<3.4	157 <sup>1</sup>	mg/m <sup>3</sup>
			<1.3	<1.3	60 <sup>1</sup> , 28 <sup>2</sup>	ppm
			<0.4876	*	10.57 <sup>2</sup>	g/s
Oxides of Nitrogen (NO <sub>x</sub> as NO <sub>2</sub> )	Chemical Absorption,	10:30-10:35	15.1	13.4	376 <sup>1</sup>	mg/m <sup>3</sup>
	Colorimetric		8.0	7.1	200 <sup>1</sup> , 10 <sup>2</sup>	ppm
			2.1656	*	2.71 <sup>2</sup>	g/s

**REMARK:**  
<sup>1</sup> NOTIFICATION OF THE MINISTRY OF INDUSTRY B.E. 2549 (2006)  
<sup>2</sup> LIMIT VALUES IN ENVIRONMENTAL IMPACT ASSESSMENT REPORT  
<sup>3</sup> DRY BASIS (25°C, 760 mm.Hg)  
\* SAMPLING BY MR. WARAKORN VITAYASEWEE (๓-๐๐3-๓-7283)

Examined By...

(MISS APIRADEE CHUEN-AROM)

(๓-๐๐3-๓-4377)  
11/05/2023



Approved By...

(MR. THONGCHAI BOONSACK)

(๓-๐๐3-๓-5618)  
11/05/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-0435

Report No. 6605-0133

### TEST REPORT

CUSTOMER : NPC Safety and Environmental Service Co., Ltd.  
ADDRESS : 20/9 Pakomsongkrohrad Rd., T. Maptaphut A. Muangrayong, Rayong 21150  
SAMPLE SOURCE : PTT Asahi Chemical Co., Ltd.  
SAMPLE POINT : ERU Stack (AOG)  
SAMPLING DATE : 19/04/2023 SAMPLE NO. : 01768  
RECEIVED DATE : 28/04/2023 SAMPLING TIME : 10:00-10:30  
TESTED DATE : 28/04/2023-12/05/2023 REPORTED DATE : 13/05/2023

#### STACK DESCRIPTION

Height :	60.30 m	Type of Process :	Combustion
Diameter :	4.30 m	Type Of Fuel :	Natural Gas
Temperature :	180.00 °C	Oxygen Content :	5.22 %
Air Velocity :	17.38 m/s	Barometric Pressure :	757.75 mm.Hg
Flow rate <sup>1</sup> :	143.42 m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	13.28 %		

PARAMETER	TEST METHOD	TIME	RESULT <sup>1</sup>		UNIT
			5.22 % O <sub>2</sub>	7 % O <sub>2</sub>	
Hydrogen Cyanide <sup>2</sup> (HCN)	Spectrophotometric	10:00-10:30	0.28	0.25	mg/m <sup>3</sup>
			0.0402	*	g/s

**REMARK:**  
<sup>1</sup> DRY BASIS (25°C, 760 mm.Hg)  
<sup>2</sup> SAMPLING BY EASTERN THAI CONSULTING 1992 CO.,LTD.  
(MR. WARAKORN VITAYASEWEE)  
ANALYSED BY THE OFFICE OF PUBLIC HEALTH AND ENVIRONMENTAL  
TECHNOLOGY SERVICES ,FACULTY OF PUBLIC HEALTH ,MAHIDOL UNIVERSITY



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By...

(MR. THONGCHAI BOONSACK)

13/05/2023

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Request No. LA66-0435

Report No. 6605-0136

### TEST REPORT

CUSTOMER : NPC Safety and Environmental Service Co., Ltd.  
ADDRESS : 20/9 Pakornsongkrohrad Rd., T. Maptaphut A. Muangrayong, Rayong 21150  
SAMPLE SOURCE : PTT Asahi Chemical Co., Ltd.  
SAMPLE POINT : ERU Stack (AOG)  
SAMPLING DATE : 19/04/2023  
RECEIVED DATE : 28/04/2023  
TESTED DATE : 28/04/2023-12/05/2023

SAMPLE NO. : 01773  
SAMPLING TIME : 10:00-10:30  
REPORTED DATE : 13/05/2023

#### STACK DESCRIPTION

Height :	60.30 m	Type of Process :	Combustion
Diameter :	4.30 m	Type Of Fuel :	Natural Gas
Temperature :	180.00 °C	Oxygen Content :	5.22 %
Air Velocity :	17.39 m/s	Barometric Pressure :	757.75 mm.Hg
Flow rate <sup>2</sup> :	131.19 m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	13.44 %		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			5.22 % O <sub>2</sub>	3 % O <sub>2</sub>		
Hydrogen Cyanide <sup>3</sup> (HCN)	Spectrophotometric	10:00-10:30	0.31	0.35	2.0	mg/m <sup>3</sup>

**REMARK:**

<sup>1</sup> IFC, 2007. ENVIRONMENTAL, HEALTH AND SAFETY GUIDELINES FOR LARGE VOLUME PETROLEUM-BASED ORGANIC CHEMICALS MANUFACTURING

<sup>2</sup> DRY BASIS (0°C, 760 mm.Hg)

<sup>3</sup> SAMPLING BY EASTERN THAI CONSULTING 1992 CO.,LTD.  
(MR. WARAKORN VITAYASEWEE)

ANALYSED BY THE OFFICE OF PUBLIC HEALTH AND ENVIRONMENTAL TECHNOLOGY SERVICES ,FACULTY OF PUBLIC HEALTH ,MAHIDOL UNIVERSITY



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Request No. LA66-0435

Report No. 6605-0144

### TEST REPORT

CUSTOMER : NPC Safety and Environmental Service Co., Ltd.  
ADDRESS : 20/9 Pakornsongkrohrad Rd., T. Maptaphut A. Muangrayong, Rayong 21150  
SAMPLE SOURCE : PTT Asahi Chemical Co., Ltd.  
SAMPLE POINT : SAR Stack  
SAMPLING DATE : 21/04/2023  
RECEIVED DATE : 28/04/2023  
TESTED DATE : 28/04/2023-06/05/2023

SAMPLE NO. : 01788-01790  
SAMPLING TIME : 10:00-11:00  
REPORTED DATE : 11/05/2023

#### STACK DESCRIPTION

Height :	61.00 m	Type of Process :	Combustion
Diameter :	2.40 m	Type Of Fuel :	Natural Gas
Temperature :	43.00 °C	Oxygen Content :	4.88 %
Air Velocity :	1.58 m/s	Barometric Pressure :	757.75 mm.Hg
Flow rate <sup>2</sup> :	6.27 m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	6.74 %		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>		STD	UNIT
			4.88 % O <sub>2</sub>	7 % O <sub>2</sub>		
Particulate (TSP)	Isokinetic, Gravimetric	10:00-11:00	3.1	2.7	320 <sup>1</sup> , 32 <sup>2</sup>	mg/m <sup>3</sup>
			0.0194	-	0.15 <sup>2</sup>	g/s
Sulfur Dioxide (SO <sub>2</sub> )	Barium Thorin Titrimetric	10:10-10:40	<3.4	<3.4	157 <sup>1</sup>	mg/m <sup>3</sup>
			<1.3	<1.3	60 <sup>1</sup> , 28 <sup>2</sup>	ppm
			<0.0213	-	0.34 <sup>2</sup>	g/s
Oxides of Nitrogen (NO <sub>x</sub> as NO <sub>2</sub> )	Chemical Absorption, Colorimetric	10:20-10:25	64.2	55.7	376 <sup>1</sup>	mg/m <sup>3</sup>
			34.1	29.6	200 <sup>1</sup> , 50 <sup>2</sup>	ppm
			0.4025	-	0.44 <sup>2</sup>	g/s

**REMARK:**

<sup>1</sup> NOTIFICATION OF THE MINISTRY OF INDUSTRY B.E. 2549 (2006)

<sup>2</sup> LIMIT VALUES IN ENVIRONMENTAL IMPACT ASSESMENT REPORT

<sup>3</sup> DRY BASIS (25°C, 760 mm.Hg)

\* SAMPLING BY MR. WARAKORN VITAYASEWEE (๓-๐๐3-๓-7283)

Examined By.

(MISS APIRADEE CHUEN-AROM)

(๓-๐๐3-๓-4377)

11/05/2023



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Approved By.

(MR. THONGCHAI BOONSACK)

(๓-๐๐3-๓-5618)

11/05/2023

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Request No. LA66-0435

Report No. 6605-0138

## TEST REPORT

CUSTOMER : NPC Safety and Environmental Service Co., Ltd.  
 ADDRESS : 20/9 Pakornsongkrohrad Rd., T. Maptaphut A. Muangrayong, Rayong 21150  
 SAMPLE SOURCE : PTT Asahi Chemical Co., Ltd.  
 SAMPLE POINT : WWI Stack  
 SAMPLING DATE : 20/04/2023 SAMPLE NO. : 01776-01778  
 RECEIVED DATE : 28/04/2023 SAMPLING TIME : 09:50-10:40  
 TESTED DATE : 28/04/2023-06/05/2023 REPORTED DATE : 11/05/2023

## STACK DESCRIPTION

Height : 60.00 m Type of Process : Combustion  
 Diameter : 1.89 m Type Of Fuel : Natural Gas  
 Temperature : 50.00 °C Oxygen Content : 12.10 %  
 Air Velocity : 1.93 m/s Barometric Pressure : 757.75 mm.Hg  
 Flow rate<sup>3</sup> : 4.74 m<sup>3</sup>/s Atmospheric Temperature : 33.00 °C  
 Moisture Content : 5.16 %

PARAMETER*	TEST METHOD	TIME	RESULT <sup>2</sup>		STD	UNIT
			12.10 % O <sub>2</sub>	7 % O <sub>2</sub>		
Particulate	Isokinetic, Gravimetric	09:50-10:40	0.3	0.5	320 <sup>1</sup> , 32 <sup>2</sup>	mg/m <sup>3</sup>
(TSP)			0.0014	-	0.58 <sup>2</sup>	g/s
Sulfur Dioxide	Barium Thorin Titrimetric	10:00-10:30	<3.4	<3.4	157 <sup>1</sup>	mg/m <sup>3</sup>
(SO <sub>2</sub> )			<1.3	<1.3	60 <sup>1</sup> , 28 <sup>2</sup>	ppm
			<0.0161	+	1.32 <sup>2</sup>	g/s
Oxides of Nitrogen	Chemical Absorption,	10:20-10:25	36.0	56.9	376 <sup>1</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Colorimetric		19.1	30.2	200 <sup>1</sup> , 50 <sup>2</sup>	ppm
			0.1706	+	1.69 <sup>2</sup>	g/s

**REMARK:**  
<sup>1</sup> NOTIFICATION OF THE MINISTRY OF INDUSTRY B.E. 2549 (2006)  
<sup>2</sup> LIMIT VALUES IN ENVIRONMENTAL IMPACT ASSESMENT REPORT  
<sup>3</sup> DRY BASIS (25°C, 760 mm.Hg)  
 \* SAMPLING BY MR. WARAKORN VITAYASEWEE (7-003-ก-7283)

Examined By

(MISS APIRADEE CHUEN-AROM)

(7-003-ก-4377)

11/05/2023



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Approved By

(MR. THONGCHAI BOONSAK)

(7-003-ก-5618)

11/05/2023

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