


ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Sampling Source : Solid Waste Sampling
Sampling Point : กอง Slag จุดที่ 1
GPS. Coordinate : UTM (WGS84) 47P 0726002 E, 1443461 N
Sampling Date : March 8, 2023
Sampling Time : 11:32
Sampling Method : Grab
Sampling By : Mr.Akarawat Kochobog, Registration No.ว-099-จ-0015
Analyzed By : Environment Research & Technology Co., Ltd. Laboratory
Registration No.ว-099
Physical Properties : -

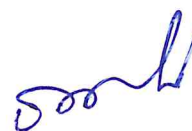
Quotation No. : 2023-00188
Analysis No. : 2023-AA747-006
Received Date : March 9, 2023
Analytical Date : March 9-20, 2023
Report No. : 2023-RAAE287
Report Date : April 1, 2023

Parameter	Unit	Method of Analysis	Result	Standard ^{1'} (TTLC)
Arsenic	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	<1.0	500
Cadmium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	6.2	100
Chromium Hexavalent	mg/kg	Digestion, Colorimetric	<0.2	500
Chromium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	1,662	2,500
Chromium Trivalent	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)/Digestion, Colorimetric/Calculation	1,662	2,500
Lead	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	19	1,000
Mercury	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometry	0.2	20
Zinc	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	614	5,000

Remark : ^{1'} Notification of the Ministry of Industry, B.E.2548 (2005), dated December 27, B.E.2548 (2005) issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.123 Part 11D dated January 25, B.E.2549 (2006).



(Ms.Yuwadee Na Ranong)
Laboratory Reviewer No. ว-099-ค-8805

(Ms.Thanida Bunrungrueang)
Laboratory Supervisor No. ว-099-ค-7023


ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Sampling Source : Solid Waste Sampling
Sampling Point : กอง Slag จุดที่ 2
GPS. Coordinate : UTM (WGS84) 47P 0725998 E, 1443462 N
Sampling Date : March 8, 2023
Sampling Time : 11:34
Sampling Method : Grab
Sampling By : Mr.Akarawat Kochobog, Registration No.ว-099-จ-0015
Analyzed By : Environment Research & Technology Co., Ltd. Laboratory Registration No.ว-099
Physical Properties : -

Quotation No. : 2023-00188
Analysis No. : 2023-AA747-007
Received Date : March 9, 2023
Analytical Date : March 9-20, 2023
Report No. : 2023-RAAE288
Report Date : April 1, 2023

Parameter	Unit	Method of Analysis	Result	Standard ^{1'} (TTLC)
Arsenic	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	<1.0	500
Cadmium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	5.0	100
Chromium Hexavalent	mg/kg	Digestion, Colorimetric	<0.2	500
Chromium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	1,358	2,500
Chromium Trivalent	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)/Digestion, Colorimetric/Calculation	1,358	2,500
Lead	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	9.4	1,000
Mercury	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometry	0.1	20
Zinc	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	72	5,000

Remark : ^{1'} Notification of the Ministry of Industry, B.E.2548 (2005), dated December 27, B.E.2548 (2005) issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.123 Part 11D dated January 25, B.E.2549 (2006).



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(Ms.Thanida Bunrungrueang)
Laboratory Supervisor No. ว-099-ค-7023

ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Sampling Source : Solid Waste Sampling
Sampling Point : กอง Slag จุดที่ 3
GPS. Coordinate : UTM (WGS84) 47P 0725993 E, 1443464 N
Sampling Date : March 8, 2023
Sampling Time : 11:37
Sampling Method : Grab
Sampling By : Mr.Akarawat Kochobog, Registration No.ว-099-จ-0015
Analyzed By : Environment Research & Technology Co., Ltd. Laboratory
Registration No.ว-099
Physical Properties : -

Quotation No. : 2023-00188
Analysis No. : 2023-AA747-008
Received Date : March 9, 2023
Analytical Date : March 9-20, 2023
Report No. : 2023-RAAE289
Report Date : April 1, 2023

Parameter	Unit	Method of Analysis	Result	Standard ^{1'} (TTLIC)
Arsenic	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	<1.0	500
Cadmium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	6.0	100
Chromium Hexavalent	mg/kg	Digestion, Colorimetric	<0.2	500
Chromium	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	1,816	2,500
Chromium Trivalent	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)/Digestion, Colorimetric/Calculation	1,816	2,500
Lead	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	13	1,000
Mercury	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometry	0.1	20
Zinc	mg/kg	Digestion, Inductively Coupled Plasma (ICP-OES)	268	5,000

Remark : ^{1'} Notification of the Ministry of Industry, B.E.2548 (2005), dated December 27, B.E.2548 (2005) issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.123 Part 11D dated January 25, B.E.2549 (2006).



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Laboratory Supervisor No. ว-099-ค-7023

ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Measured Source : Work Place Noise **Quotation No.** : 2023-00188
Measured Date : March 11, 2023 **Analysis No.** : 2023-AA802-002
Measured By : Mr.Noppasit Taweepornpadit **Report No.** : 2023-RAAE251
Analyzed By : Environment Research & Technology Co., Ltd. **Report Date** : March 16, 2023
Measured Instrument : Integrating Sound Level Meter Type II, ACO Model 6236 Serial Number 222125

Measured Location/ Employee Name	Interval Time	Equivalent Level; dB(A)	Maximum Level; dB(A)	Standard
ห้องควบคุมของโรงหลอม (คุณสมบุรณ์ ดวงตะวัน)	08:59 - 09:59	79.0	95.6	-
	09:59 - 10:59	78.6	93.4	-
	10:59 - 11:59	75.8	95.7	-
	11:59 - 12:59	75.7	94.9	-
	12:59 - 13:59	77.6	92.1	-
	13:59 - 14:59	77.2	95.9	-
	14:59 - 15:59	75.9	90.9	-
	15:59 - 16:59	74.7	87.4	-
	Equivalent Level 8 hrs (Leq 8 hrs)		77.0	-
	Time Weighted Average (TWA 8 hrs) ^{1'}		77.0	85 ^{2'}
	Maximum Level (Lmax)		95.9	115 ^{3'}

Remark : ^{1'} Calculates the Case of Employees Working in this Area throughout the Work Period.

^{2'} The Announcement of the Department of Labour Protection and Welfare, issued under the Labour Ministerial Regulation, B.E.2559 (2016), published in the Royal Government Gazette Volume 135 Special Part 19D dated January 26, B.E.2561 (2018) and published in the Royal Government Gazette Volume 135 Special Part 57D dated March 12, B.E.2561 (2018).

^{3'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).



(Ms.Thidarat Pukkha)
Laboratory Reviewer




(Ms.Thanida Bunrungrueang)
Laboratory Supervisor

ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถาวร ระยะที่ 2
Measured Source : Work Place Noise
Measured Date : March 15, 2023
Measured By : Mr.Chamaikoel Satee
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Integrating Sound Level Meter Type II, ACO Model 6236 Serial Number 222125


Quotation No. : 2023-00188
Analysis No. : 2023-AA854-001
Report No. : 2023-RAAE563
Report Date : March 21, 2023

Measured Location/ Employee Name	Interval Time	Equivalent Level; dB(A)	Maximum Level; dB(A)	Standard
ห้องควบคุมของโรงรีด 1 (คุณสุเทพ เกลาเกลี้ยง)	08:34 - 09:34	68.0	83.8	-
	09:34 - 10:34	65.0	77.1	-
	10:34 - 11:34	66.1	79.9	-
	11:34 - 12:34	66.5	78.9	-
	12:34 - 13:34	65.9	82.6	-
	13:34 - 14:34	69.1	83.9	-
	14:34 - 15:34	67.9	83.3	-
	15:34 - 16:34	65.6	75.0	-
	Equivalent Level 8 hrs (Leq 8 hrs)		67.0	-
	Time Weighted Average (TWA 8 hrs) ^{1'}		66.9	85 ^{2'}
	Maximum Level (Lmax)		83.9	115 ^{3'}


Remark : ^{1'} Calculates the Case of Employees Working in this Area throughout the Work Period.

^{2'} The Announcement of the Department of Labour Protection and Welfare, issued under the Labour Ministerial Regulation, B.E.2559 (2016), published in the Royal Government Gazette Volume 135 Special Part 19D dated January 26, B.E.2561 (2018) and published in the Royal Government Gazette Volume 135 Special Part 57D dated March 12, B.E.2561 (2018).

^{3'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).


 (Ms.Thidarat Pukkha)
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 (Ms.Thanida Bunrungrueang)
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ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กกลวอด ระยะที่ 2
Measured Source : Work Place Noise
Measured Date : March 11, 2023
Measured By : Mr.Noppasit Taweepornpadit
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Integrating Sound Level Meter Type II, ACO Model 6236 Serial Number 222112

Quotation No. : 2023-00188
Analysis No. : 2023-AA802-001
Report No. : 2023-RAAE250
Report Date : March 16, 2023

Measured Location/ Employee Name	Interval Time	Equivalent Level; dB(A)	Maximum Level; dB(A)	Standard
ห้องควบคุมของโรงรีด 2 (คุณเกิดดีภพ จินตนาถาวร)	08:43 - 09:43	68.1	77.6	-
	09:43 - 10:43	66.1	79.7	-
	10:43 - 11:43	66.3	78.3	-
	11:43 - 12:43	66.4	76.3	-
	12:43 - 13:43	66.5	78.2	-
	13:43 - 14:43	67.9	80.1	-
	14:43 - 15:43	66.3	77.6	-
	15:43 - 16:43	66.4	75.5	-
	Equivalent Level 8 hrs (Leq 8 hrs)		66.8	-
	Time Weighted Average (TWA 8 hrs) ^{1'}		66.8	85 ^{2'}
	Maximum Level (Lmax)		80.1	115 ^{3'}


Remark : ^{1'} Calculates the Case of Employees Working in this Area throughout the Work Period.

^{2'} The Announcement of the Department of Labour Protection and Welfare, issued under the Labour Ministerial Regulation, B.E.2559 (2016), published in the Royal Government Gazette Volume 135 Special Part 19D dated January 26, B.E.2561 (2018) and published in the Royal Government Gazette Volume 135 Special Part 57D dated March 12, B.E.2561 (2018).

^{3'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).



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Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Measured Source : Work Place Air Temperature
Measured Date : April 29, 2023
Measured By : Ms.Natnalita Kotphan
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Heat Stress Monitor/Electronic Metrosonics Model hs-32 Serial Number MCG080057


Quotation No. : 2023-00188
Analysis No. : 2023-AB567-001
Report No. : 2023-RAAH977
Report Date : May 8, 2023


Measured Location	Employee Name	Duration	Measurement Temperature; °C					Job Description/ Activities	Work Load, WL			Standard ^{2'}
			T _{NWB}	T _{DB}	T _{GT}	WBGT	WBGT ^{1'} (Avg.)		Metabolic Rate (Kcal/hr)	Metabolic Rate Average (Kcal/hr)	Workload Rate	
หน้าเตาหลอม EAF (Indoor)	คุณณัฐพงศ์ จันทกรกลาง	09:59-11:59	27.5	34.7	36.5	30.2	30.2	ชั้นรถโฟล์คลิฟท์		216.0	Moderate	32.0
								- นั่ง ทำงานด้วยร่างกายทุกส่วน (เบา)	76.0			
								ตรวจสอบการทำงานของเครื่องจักร				
								- เดินบนพื้นราบ	80.0			
		-	-	-	-	-	-	การเผาผลาญพื้นฐานของร่างกาย	60.0			

Remark : T_{NWB} = Nature Wet Bulb Temperature, T_{DB} = Dry Bulb Temperature, T_{GT} = Globe Temperature, WBGT = Wet Bulb Globe Temperature Index.

^{1'} Calculate by $((WBGT_1 \times Time_1) + (WBGT_2 \times Time_2) + \dots + (WBGT_n \times Time_n)) / (Time_1 + Time_2 + \dots + Time_n)$

^{2'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).


(Ms.Thidarat Pukkha)
Laboratory Reviewer


(Ms.Thanida Bunrungrueang)
Laboratory Supervisor

ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Measured Source : Work Place Air Temperature
Measured Date : April 29, 2023
Measured By : Ms.Natnalita Kotphan
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Heat Stress Monitor/Electronic Metrosonics Model hs-32 Serial Number MCD090008

Quotation No. : 2023-00188
Analysis No. : 2023-AB567-002
Report No. : 2023-RAAH978
Report Date : May 8, 2023

Measured Location	Employee Name	Duration	Measurement Temperature; °C					Job Description/ Activities	Work Load, WL			Standard ^{2'}
			T _{NWB}	T _{DB}	T _{GT}	WBGT	WBGT ^{1'} (Avg.)		Metabolic Rate (Kcal/hr)	Metabolic Rate Average (Kcal/hr)	Workload Rate	
หน้าเตาหลอม LF (Indoor)	คุณพิเชษฐ์ พึ่งเสื่อ	09:53-11:53	29.3	38.5	40.6	32.7	32.7	เขี่ยเหล็ก		181.5	Light	34.0
								- ยืน ทำงานด้วยแขนทั้ง 2 ข้าง (เบา)	31.5			
								ตรวจสอบการทำงานของเครื่องจักร				
								- เดินบนพื้นราบ	90.0			
		-	-	-	-	-	-	การเผาผลาญพื้นฐานของร่างกาย	60.0			

Remark : T_{NWB} = Nature Wet Bulb Temperature, T_{DB} = Dry Bulb Temperature, T_{GT} = Globe Temperature, WBGT = Wet Bulb Globe Temperature Index.

^{1'} Calculate by $((WBGT_1 \times Time_1) + (WBGT_2 \times Time_2) + \dots + (WBGT_n \times Time_n)) / (Time_1 + Time_2 + \dots + Time_n)$

^{2'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).



(Ms.Thidarat Pukkha)
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Laboratory Supervisor

ANALYSIS REPORT

Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กหลอด ระยะที่ 2
Measured Source : Work Place Air Temperature
Measured Date : April 22, 2023
Measured By : Mr.Jirayuth Samart
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Heat Stress Monitor/Electronic Metrosonics Model hs-32 Serial Number MCB030006

Quotation No. : 2023-00188
Analysis No. : 2023-AB447-001
Report No. : 2023-RAAH753
Report Date : May 6, 2023

Measured Location	Employee Name	Duration	Measurement Temperature; °C					Job Description/ Activities	Work Load, WL			Standard ^{2'}
			T _{NWB}	T _{DB}	T _{GT}	WBGT	WBGT ^{1'} (Avg.)		Metabolic Rate (Kcal/hr)	Metabolic Rate Average (Kcal/hr)	Workload Rate	
โรงรีด 1 เดาอบเหล็ก (Indoor)	คุณเกียรติ หันตุลา	09:10-11:10	28.6	36.9	39.1	31.8	31.8	ตรวจสอบการทำงานของเครื่องจักร		181.0	Light	34.0
								- เดินบนพื้นราบ	100.0			
								ควบคุมเครื่องจักร				
								- ยืน ทำงานด้วยแขนทั้ง 2 ข้าง (เบา)	21.0			
		-	-	-	-	-	-	การเผาผลาญพื้นฐานของร่างกาย	60.0			

Remark : T_{NWB} = Nature Wet Bulb Temperature, T_{DB} = Dry Bulb Temperature, T_{GT} = Globe Temperature, WBGT = Wet Bulb Globe Temperature Index.

^{1'} Calculate by ((WBGT₁ x Time₁)+(WBGT₂ x Time₂)+...+(WBGT_n x Time_n)) / (Time₁ + Time₂ +...+Time_n)

^{2'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).



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Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กกลวอด ระยะที่ 2
Measured Source : Work Place Air Temperature
Measured Date : April 22, 2023
Measured By : Mr.Jirayuth Samart
Analyzed By : Environment Research & Technology Co., Ltd.
Measured Instrument : Heat Stress Monitor/Electronic Metrosonics Model hs-32 Serial Number MCF010006


Quotation No. : 2023-00188
Analysis No. : 2023-AB447-002
Report No. : 2023-RAAH754
Report Date : May 6, 2023

Measured Location	Employee Name	Duration	Measurement Temperature; °C					Job Description/ Activities	Work Load, WL			Standard ^{2'}
			T _{NWB}	T _{DB}	T _{GT}	WBGT	WBGT ^{1'} (Avg.)		Metabolic Rate (Kcal/hr)	Metabolic Rate Average (Kcal/hr)	Workload Rate	
โรงรีด 2 เดาอมเหล็ก (Indoor)	คุณกิตติภพ จินดนาถาวร	09:12-11:12	28.4	35.4	38.1	31.3	31.3	ตรวจสอบการทำงานของเครื่องจักร		181.0	Light	34.0
								- เดินบนพื้นราบ	100.0			
								ควบคุมเครื่องจักร				
								- ยืน ทำงานด้วยแขนทั้ง 2 ข้าง (เนา)	21.0			
		-	-	-	-	-	-	การเผาผลาญพื้นฐานของร่างกาย	60.0			


Remark : T_{NWB} = Nature Wet Bulb Temperature, T_{DB} = Dry Bulb Temperature, T_{GT} = Globe Temperature, WBGT = Wet Bulb Globe Temperature Index.

^{1'} Calculate by ((WBGT₁ x Time₁)+(WBGT₂ x Time₂)+...+(WBGT_n x Time_n)) / (Time₁ + Time₂ +...+Time_n)

^{2'} Ministerial Regulation of the Ministry of Labour, B.E.2559 (2016), published in the Royal Government Gazette No.133, Part 91A dated October 17, B.E.2559 (2016).



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Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กหลอด ระยะที่ 2
Sampling Source : Work Place Air Quality
Sampling Date : February 25, 2023
Sampling Time : 09:05-10:21
Sampling Method : APHA, NIOSH
Sampling By : Mr.Natthapon Suttimon
Analyzed By : Environment Research & Technology Co., Ltd.

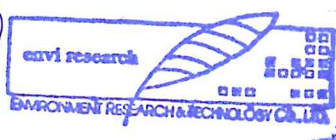
Quotation No. : 2023-00188
Analysis No. : 2023-AA583
Received Date : February 27, 2023
Analytical Date : February 27-March 1, 2023
Report No. : 2023-RAAD231
Report Date : March 1, 2023

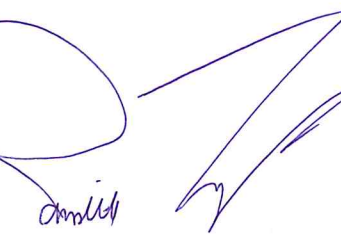
Item	Sampling Area	Parameter	Method of Analysis	Unit	Result	Standard	
						Thai ^{1'}	ACGIH ^{2'}
1	หน้าเตาหลอม EAF	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	3.0	-	10
2	หน้าเตาหลอม LF	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	0.99	-	10
3	ห่างจากเตาหลอม EAF ประมาณ 10 เมตร	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	1.2	-	10
4	ห่างจากเตาหลอม LF ประมาณ 10 เมตร	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	2.7	-	10

Remark : ^{1'} The Announcement of the Department of Labour Protection and Welfare, issued under the Labour Ministerial Regulation, B.E.2556 (2013), published in the Royal Government Gazette Volume 134 Special Part 198D dated August 3, B.E.2560 (2017).

^{2'} ACGIH = American Conference of Governmental Industrial Hygienists, 2021.


 (Ms.Natnicha Sermmatiwong)
 Laboratory Reviewer




 (Ms.Ramita Taengthai)
 Laboratory Supervisor

ANALYSIS REPORT


Customer Name : Tata Steel Manufacturing (Thailand) PCL. (Branch : 00001)
Address : 351 Moo 6 WHA Chonburi Industrial Estate 1, 331 Highway Road, Bo Win, Si Racha, Chon Buri 20230
Project Name : โครงการขยายกำลังการผลิตเหล็กถลุง ระยะที่ 2
Sampling Source : Work Place Air Quality
Sampling Date : May 20, 2023
Sampling Time : 11:04-12:19
Sampling Method : APHA, NIOSH
Sampling By : Mr.Chatchai Yowapuy
Analyzed By : Environment Research & Technology Co., Ltd.

Quotation No. : 2023-00188
Analysis No. : 2023-AB961
Received Date : May 23, 2023
Analytical Date : May 23-26, 2023
Report No. : 2023-RAAK017
Report Date : June 1, 2023

Item	Sampling Area	Parameter	Method of Analysis	Unit	Result	Standard	
						Thai ^{1'}	ACGIH ^{2'}
1	หน้าเตาหลอม EAF	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	3.2	-	10
2	หน้าเตาหลอม LF	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	0.38	-	10
3	ห่างจากเตาหลอม EAF ประมาณ 10 เมตร	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	1.9	-	10
4	ห่างจากเตาหลอม LF ประมาณ 10 เมตร	Sulfur Dioxide	Titration	ppm	<0.11	5	0.25
		Inhalable Dust	Gravimetric	mg/m ³	0.16	-	10

Remark : ^{1'} The Announcement of the Department of Labour Protection and Welfare, issued under the Labour Ministerial Regulation, B.E.2556 (2013), published in the Royal Government Gazette Volume 134 Special Part 198D dated August 3, B.E.2560 (2017).

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