ENVIRONMENTAL QUALITY MONITORING
THAI MEIRA CO., LTD.
SIAM EASTERN INDUSTRIAL PARK
7th-8th,20th April 2022
Report CAP No.0124/22

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Report Date.....

ENVIRONMENTAL QUALITY MONITORING REPORT
THAI MEIRA CO., LTD.
SIAM EASTERN INDUSTRIAL PARK
7th-8th,20th April 2022

Chemax & Phypers Co., Ltd. have been registered for environmental and air quality measurement by Ministry of Industry for Pollution Treatment Plant Control Register **No. ว-123-49-074** and have been registered for environmental and air quality measurement by Industrial Works Department for Laboratory Register **No. ว-090**

Technician Staffs of Engineering Service Section

1.	Mr. Nanthawuth	Chanchamsri	(Department Manager (Operation))
2.	Mr. Raweepol	Puangchampa	(Department Manager (Technique equip.))
3.	Mr. Phithak	Saengphueng	(Scientific Graduate)
4.	Mr. Nuttapong	Komchaiyapoom	(Scientific Graduate)
5.	Mr. Chainarong	Pikuljinda	(Scientific Graduate)
6.	Mr. Thanawat	Chamoto	(Scientific Graduate)
7.	Mr. Pranan	Thongsuth	(Scientific Graduate)

Environmental Staffs of Engineering Service Section

1.	Miss Patamaporn	Charoensap	(Technical Office Manager)
2.	Miss Sukanya	Sripha	(Scientific Graduate)
3.	Miss Jureeporn	Thongdee	(Scientific Graduate)
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Approved By **Signature**

1. Miss Pradyada Monthip .....
2. Miss Patamaporn Charoensap .....
3. Miss Kreesukhon Naksang .....

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EXECUTIVE SUMMARY

Executive Summary

From the environmental quality monitoring of **THAI MEIRA CO., LTD. / SIAM EASTERN INDUSTRIAL PARK** , concern monitored on 7th-8th,20th April 2022 by summary as below :

1. The Results of Industrial Hygiene Measurement from Workplace.

Type of Industrial Hygiene		Point	Conclusion Results (Point)		Detail on Page
			Yes	No	
1	Heat Level (WBGT)	36	36	-	6-8
2	Average Vibration	2	2	-	10

INDRUSTRIAL HYGIENE

- Heat Level
- Other

The Heat Level Measurement from Workplace

1. The Heat Level Measurement from Workplace.

This heat level measurement from workplace is followed the standard method of the Department of Labor Protection & Welfare B.E. 2561 (2018) (Group 2 : Heat). The detected equipment for heat level measurement is Heat Stress Monitor. Measurement on period at predicted to harmed from Max Heat.

2. Results of Heat Level Measurement from Workplace.

The Results of Heat Level (WBGT) Measurement from Workplace.

Factory : THAI MEIRA CO., LTD. / SIAM EASTERN INDUSTRIAL PARK

1. Monitoring Date : 7th April 2022

8th April 2022

2. Instrument for Monitoring (Case of more than 1 machine , Add data in table)

Heat Stress Monitor / Thermal Environment Monitor	Brand/Version	Serial Number	Standard	Date of Calibration	CAP Serial No.
1 Heat Stress Monitor	QUESTEMP 10	JX5040027	ISO 7243	5/4/2022	H1
2 Heat Stress Monitor	QUESTEMP 10	JX6100038	ISO 7243	28/3/2022	H2
3 Thermal Environment Monitor	QUESTEMP 32	TPR030003	ISO 7243	4/3/2022	H5
4 Thermal Environment Monitor	QUESTEMP 32	TPR030004	ISO 7243	4/3/2022	H6
5 Thermal Environment Monitor	QUESTEMP 32	TPR030006	ISO 7243	4/3/2022	H7
6 Thermal Environment Monitor	QUESTEMP 32	TPW020017	ISO 7243	5/4/2022	N/A
7 Thermal Environment Monitor	QUESTEMP 32	TPW020018	ISO 7243	5/4/2022	N/A
8 Thermal Environment Monitor	QUESTEMP 32	TPW020019	ISO 7243	5/4/2022	N/A
9 Thermal Environment Monitor	QUESTEMP 32	TPW020020	ISO 7243	5/4/2022	N/A

3. The Results of Heat Level (WBGT) Measurement from Workplace

Item of SEG [1]	Monitoring Area [2]	Name and Surname for SEG	Period of Sampling	Temperature (°C)					Job	Work Load, WL [3]			Assesment [4] (over / within Standard)	Standard	CAP Serial No.
				T_{NMB}	T_{DB}	T_{GT}	WBGT in/out	WBGT Average		Energy Used (Kcal/hr)	Energy Used (Average) (Kcal/hr)	Work Load Hard , Medium , Light			
1	Material Stock	K.Apirak Nikulram	10.00-12.00	25.0	33.7	34.2	in	**27.8**	Stand / Check Stock, forcing the crane		150	Light	**within**	**34**	H1
2	Tooling	K.Suradet Poonphon	10.00-12.00	24.8	31.7	32.0	in	**27.0**	Machine control		114	Light	**within**	**34**	N/A
3	Header Group 1 M/C No.183	K.Wittawat Kiewphan	10.00-12.00	25.0	34.3	35.0	in	**28.0**	Machine control		114	Light	**within**	**34**	H7
4	Header Group 2 M/C No.105	K.Pongsiri Onyae	10.00-12.00	25.7	35.5	36.0	in	**28.8**	Machine control		114	Light	**within**	**34**	N/A
5	Auto Rolling M/C 016	K.Parinya Khamsiang	10.00-12.00	26.2	35.5	36.0	in	**29.1**	Machine control		114	Light	**within**	**34**	H6
6	Auto Rolling M/C 076	K.Montree Phothipimoon	10.00-12.00	26.5	35.2	35.6	in	**29.2**	Machine control		114	Light	**within**	**34**	H2
7	Auto Rolling M/C 016	K.Kiatipop Kantuk	10.00-12.00	25.8	35.0	35.5	in	**28.7**	Machine control		114	Light	**within**	**34**	N/A
8	Heat Line 1 / End Line	K.Anuchit Khumkratok	10.00-12.00	26.5	38.1	39.1	in	**30.3**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	H5
9	Heat Line 2 / Head Line	K.Sarawut Absanoi	10.00-12.00	27.7	36.9	38.4	in	**30.9**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
10	Heat Line 3 / End Line	K.Anuchit Khumkratok	10.00-12.00	26.0	37.8	38.3	in	**29.7**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A

3. (Con'd) The Results of Heat Level (WBGT) Measurement from Workplace

Item of SEG [1]	Monitoring Area [2]	Name and Surname for SEG	Period of Sampling	Temperature (°C)					Job	Work Load, WL [3]			Assesment [4] (over / within Standard)	Standard	CAP Serial No.
				T_{NMB}	T_{DB}	T_{GT}	WBGT in/out	WBGT Average		Energy Used (Kcal/hr)	Energy Used (Average) (Kcal/hr)	Work Load Hard , Medium , Light			
11	Heat Line 4 / Head Line	K.Pattanapong Therakhoksong	13.00-15.00	26.9	36.9	38.1	in	**30.3**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
12	Heat Line 5 / End Line	K.Pattanapong Therakhoksong	13.00-15.00	27.0	37.5	38.7	in	**30.5**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
13	Shot Blast	K.Suthat Matmit	13.00-15.00	26.0	37.2	38.9	in	**29.9**	Stand / Machine control		114	Light	**within**	**34**	H6
14	Surface No.5 / End Line	K.Apiwat Yuenyao	13.00-15.00	26.1	35.8	36.4	in	**29.2**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
15	Surface No.4 / End Line	K.Soraphong Phudet	13.00-15.00	26.4	36.0	36.9	in	**29.6**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	H2
16	Surface No.3 / Head Line	K.Adisorn Ruangsanga	13.00-15.00	28.0	37.2	38.3	in	**31.1**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
17	Geoment Line	K.Siam Somporn	13.00-15.00	26.8	36.9	38.2	in	**30.2**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	H7
18	Geoment / NPE	K.Sawitree Hawong	13.00-15.00	25.4	36.3	37.0	in	**28.9**	Seated / marked head parts		114	Light	**within**	**34**	H1
19	ONP-1	K.Pramuang Kaikang	13.00-15.00	25.7	36.0	36.8	in	**29.0**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	H5
20	OCT Area	K.Peerapat Polprasert	13.00-15.00	25.4	36.1	36.5	in	**28.7**	Stand / Take parts in-out of the machine		150	Light	**within**	**34**	N/A
21	WasteWater Treatment	K.Sanga Mahawong	09.00-11.00	25.0	34.2	34.8	in	**27.9**	Machine control , Check		114	Light	**within**	**34**	H1
22	Header Group 4 M/C 064	K.Supachai Sriuthai	09.00-11.00	25.3	36.6	36.9	in	**28.8**	Machine control , Check		114	Light	**within**	**34**	H5
23	Header Group 3 M/C 079	K.Nuttakorn Saenwat	09.00-11.00	26.8	36.4	37.0	in	**29.9**	Machine control , Check		114	Light	**within**	**34**	H2
24	Header Group 3 M/C 137	K.Soonthorn Popana	09.00-11.00	27.1	36.7	37.1	in	**30.1**	Machine control , Check		114	Light	**within**	**34**	N/A
25	Material Stock Phase 5-6	K.Prawit Chandee	09.00-11.00	26.8	36.2	38.2	in	**30.2**	Stand / Check Stock		114	Light	**within**	**34**	N/A
26	Semi Pass Through	K.Nattapong Phawongjit	09.00-11.00	25.5	35.8	36.2	in	**28.7**	Check Stock		114	Light	**within**	**34**	H7
27	Packing Fac.2 Line 3	K.Chamnong Namwongsa	11.30-13.30	26.5	27.6	30.1	in	**27.6**	Stand / Packing		150	Light	**within**	**34**	H1
28	Packing Fac.2 Line 7	K.Teerapap Wapop	11.30-13.30	25.0	34.0	34.8	in	**27.9**	Stand / Packing		150	Light	**within**	**34**	H7
29	Stack in Fac.2 Line 6	K.Wuttisak Supapao	11.30-13.30	24.9	33.9	35.0	in	**27.9**	Stand / Check		114	Light	**within**	**34**	H5
30	Machining M/C No.165	K.Wuttichai Yaikaen	11.30-13.30	24.8	33.9	34.5	in	**27.7**	Stand / Machine control		114	Light	**within**	**34**	N/A
31	Machining M/C No.112	K.Somrot Petchkla	11.30-13.30	24.7	33.6	34.9	in	**27.8**	Stand / Machine control		114	Light	**within**	**34**	H2
32	Machining M/C No.163	K.Somrot Petchkla	11.30-13.30	24.7	33.6	34.9	in	**27.8**	Stand / Machine control		114	Light	**within**	**34**	N/A
33	Hand Rolling M/C 020	K.Saowanee Chandee	11.30-13.30	24.6	33.2	34.4	in	**27.5**	Stand / Check		114	Light	**within**	**34**	N/A
34	QC Inspection Line E-5 Fac.2	K.Amara Chamnan	11.30-13.30	24.5	33.2	34.2	in	**27.4**	Seated / Check		114	Light	**within**	**34**	N/A

3. (Con'd) The Results of Heat Level (WBGT) Measurement from Workplace

Item of SEG [1]	Monitoring Area [2]	Name and Surname for SEG	Period of Sampling	Temperature (°C)					Job	Work Load, WL [3]			Assesment [4] (over / within Standard)	Standard	CAP Serial No.
				T_{NMB}	T_{DB}	T_{GT}	WBGT in/out	WBGT Average		Energy Used (Kcal/hr)	Energy Used (Average) (Kcal/hr)	Work Load Hard , Medium , Light			
35	QC Inspection Line B-5 Fac.2	K.Anothai Saelu	11.30-13.30	24.3	33.3	34.1	in	**27.2**	Seated / Check		114	Light	**within**	**34**	N/A
36	KZM Sorting M/C No.0058	K.Chumphon Yodphet	11.30-13.30	24.5	33.4	34.2	in	**27.4**	Machine control		114	Light	**within**	**34**	H6

Remark :

1. SEG or Similar Exposure Group are worker group are same job.
2. Monitoring Area , should attach lay out (Show of instrument point and sources of heat)
3. Case of Staff get different or join job , show of calculated for Work-Load Assessment.
4. Ministerial Regulations B.E.2016 Topic 1 Heat Item 2

3. Conclusion and Recommendation of Heat Level Measurement from Workplace.

From the heat level (Tg and Tnwb is equal to WBGT) , WBGT were compared with the Ministerial Regulations B.E.2016 Topic 1 Heat Item 2 , we found that the heat level (WBGT) from of all the detection areas (36 points) are within the regulation standard.

The Average Vibration Measurement

1. The Average Vibration Measurement.

The average vibration measurement is followed the standard method of the National Environment Board No. 37 B.E. 2553 (2010) on "The standard fo vibration for protection to impact on buildings". The detected equipment for average vibration measurement is Minimate Plus Base Unit.

2. Results of Average Vibration Measurement

Table The Results of Average Vibration Measurement.

Monitoring Data						
Factory	THAI MEIRA CO.,LTD.					
Location	SIAM EASTERN INDUSTRIAL PARK					
Monitoring Date	20th April 2022 By Chemax & Phypers Co., Ltd.					
	By Lux Meter : Minimate Plus Base Unit : Serial S/N No.BE17487					
Results						
Item	**Point**	**Parameters**	**Unit**	**Direction**		
				X Axis	**Z Axis**	**Y Axis**
				Long	**Tran**	**Vert**
1	Header At 03:41 p.m.	Particle Speed	mm/s	0.197	0.197	0.221
		Frequency	Hertz	>100	>100	>100
		Standard	mm/s	50 (1)	50 (1)	50 (1)
2	Locker Room At 03:55 p.m.	Particle Speed	mm/s	0.205	0.189	0.221
		Frequency	Hertz	>100	>100	>100
		Standard	mm/s	50 (1)	50 (1)	50 (1)

Source : Chemax & Phypers Co., Ltd.

Remark : (1) The Notification of the National Environment Board No. 37 B.E. 2553 (2010) on "The standard of vibration for protection to impact on buildings" Benchmark according to vibration (Building type 1 and case 1)

3. Conclusion and Recommendation of Average Vibration Measurement

The Notification of the National Environment Board No. 37 B.E. 2553 (2010) on " The standard of vibration for protection to impact on buildings"

1. Header, Average vibration were compared with Tale (Item 2), Building type 1 and care 1, mean to vibration to not Harding for Building, We found that Particle Speed at X (Long), Y (Vert) and Z (Tran) are within the regulation standard.

2. Locker Room, Average vibration were compared with Tale (Item 2), Building type 1 and care 1, mean to vibration to not Harding for Building, We found that Particle Speed at X (Long), Y (Vert) and Z (Tran) are within the regulation standard.