

ภาคผนวก จ-10

ผลตรวจวิเคราะห์คุณภาพน้ำดื่ม



Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 1 of 32

Sample Number	2341539-1
Sampled Date	Apr 24, 2023 11:10 AM
Sample Description	Drinking water
Location	Control Build's Pantry
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	<0.005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.007	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

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Sample Number	2341539-1
Sampled Date	Apr 24, 2023 11:10 AM
Sample Description	Drinking water
Location	Control Build's Pantry
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	0.0006	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Sample Number	2341539-1
Sampled Date	Apr 24, 2023 11:10 AM
Sample Description	Drinking water
Location	Control Build's Pantry
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	5.9	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.1	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Sample Number	2341539-1						
Sampled Date	Apr 24, 2023 11:10 AM						
Sample Description	Drinking water						
Location	Control Build's Pantry						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	0.9	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	18	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	42	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.20	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-2
Sampled Date	Apr 24, 2023 12:30 PM
Sample Description	Drinking water
Location	Admin Build's Pantry 2 nd Fl (CRESSO)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.001	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Sample Number	2341539-2
Sampled Date	Apr 24, 2023 12:30 PM
Sample Description	Drinking water
Location	Admin Build's Pantry 2 nd Fl (CRESSO)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	0.0006	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	Not Detected	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Sample Number	2341539-2						
Sampled Date	Apr 24, 2023 12:30 PM						
Sample Description	Drinking water						
Location	Admin Build's Pantry 2 nd Fl (CRESSO)						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	3.2	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.1	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Sample Number	2341539-2
Sampled Date	Apr 24, 2023 12:30 PM
Sample Description	Drinking water
Location	Admin Build's Pantry 2 nd Fl (CRESSO)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	<0.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	21	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.30	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Sample Number	2341539-3
Sampled Date	Apr 24, 2023 12:20 PM
Sample Description	Drinking water
Location	Admin Build's Pantry FI 1 (RPCL)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.001	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Lot ID: 2341539

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Sample Number	2341539-3
Sampled Date	Apr 24, 2023 12:20 PM
Sample Description	Drinking water
Location	Admin Build's Pantry FI 1 (RPCL)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 11 of 32

Sample Number	2341539-3
Sampled Date	Apr 24, 2023 12:20 PM
Sample Description	Drinking water
Location	Admin Build's Pantry FI 1 (RPCL)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	2.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	<0.2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.1	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-3
Sampled Date	Apr 24, 2023 12:20 PM
Sample Description	Drinking water
Location	Admin Build's Pantry FI 1 (RPCL)
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	<0.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	18	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.25	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-4						
Sampled Date	Apr 24, 2023 12:15 PM						
Sample Description	Drinking water						
Location	Admin Build's Pantry Fl 1 (RPCL) Pr. area						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.001	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-4
Sampled Date	Apr 24, 2023 12:15 PM
Sample Description	Drinking water
Location	Admin Build's Pantry Fl 1 (RPCL) Pr. area
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	<0.0005	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-4						
Sampled Date	Apr 24, 2023 12:15 PM						
Sample Description	Drinking water						
Location	Admin Build's Pantry Fl 1 (RPCL) Pr. area						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	2.1	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.1	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-4						
Sampled Date	Apr 24, 2023 12:15 PM						
Sample Description	Drinking water						
Location	Admin Build's Pantry Fl 1 (RPCL) Pr. area						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	<0.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	20	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.20	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-5						
Sampled Date	Apr 24, 2023 11:55 AM						
Sample Description	Drinking water						
Location	Canteen (Water Cooler) Inlet						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	0.03	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	0.002	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.04	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.0008	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	0.02	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	<0.0005	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

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245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-5
Sampled Date	Apr 24, 2023 11:55 AM
Sample Description	Drinking water
Location	Canteen (Water Cooler) Inlet
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.002	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.09	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-5						
Sampled Date	Apr 24, 2023 11:55 AM						
Sample Description	Drinking water						
Location	Canteen (Water Cooler) Inlet						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	19.6	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	<0.1	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	<0.2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	8.2	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 20 of 32

Sample Number	2341539-5
Sampled Date	Apr 24, 2023 11:55 AM
Sample Description	Drinking water
Location	Canteen (Water Cooler) Inlet
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	5.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	96	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	149	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.50	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-6
Sampled Date	Apr 24, 2023 11:50 AM
Sample Description	Drinking water
Location	Canteen RO
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.03	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	0.001	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 22 of 32

Sample Number	2341539-6
Sampled Date	Apr 24, 2023 11:50 AM
Sample Description	Drinking water
Location	Canteen RO
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.02	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-6
Sampled Date	Apr 24, 2023 11:50 AM
Sample Description	Drinking water
Location	Canteen RO
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	<0.2	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.5	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-6
Sampled Date	Apr 24, 2023 11:50 AM
Sample Description	Drinking water
Location	Canteen RO
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	<0.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	<1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.20	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-7
Sampled Date	Apr 24, 2023 11:30 AM
Sample Description	Drinking water
Location	Warehouse & Maintenance Building
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.003	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 26 of 32

Sample Number	2341539-7
Sampled Date	Apr 24, 2023 11:30 AM
Sample Description	Drinking water
Location	Warehouse & Maintenance Building
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.02	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 27 of 32

Sample Number	2341539-7
Sampled Date	Apr 24, 2023 11:30 AM
Sample Description	Drinking water
Location	Warehouse & Maintenance Building
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	3.2	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.0	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

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Sample Number	2341539-7						
Sampled Date	Apr 24, 2023 11:30 AM						
Sample Description	Drinking water						
Location	Warehouse & Maintenance Building						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	0.6	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	10	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	28	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.20	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

Nanthawadee Somboon
Specialist 1

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 29 of 32

Sample Number	2341539-8						
Sampled Date	Apr 24, 2023 12:40 PM						
Sample Description	Drinking water						
Location	Guardhouse Building						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.0007	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Iron	mg/L	0.003	0.005	Not Detected	≤0.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Specialist 1



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Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 30 of 32

Sample Number	2341539-8						
Sampled Date	Apr 24, 2023 12:40 PM						
Sample Description	Drinking water						
Location	Guardhouse Building						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
<i>Escherichia coli</i>	in 100 mL	-	-	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 F	Bangkok
<i>Salmonella spp.</i>	in 100 mL	-	-	Not Detected	Not Detected	ISO 19250 (2010)	Bangkok
<i>Staphylococcus aureus</i>	CFU/100mL	-	-	<1	≤100	In-house method STM No. 01-054 in connection with: - Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9213 B - FDA BAM online, 2016 (Chapter 12)	Bangkok

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Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 31 of 32

Sample Number	2341539-8						
Sampled Date	Apr 24, 2023 12:40 PM						
Sample Description	Drinking water						
Location	Guardhouse Building						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	<1.1	<2.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Alkylbenzene Sulfonate as MBAS	mg/L	0.05	0.1	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5540 C	Bangkok
Chloride as Cl	mg/L	0.06	0.2	1.0	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Color	Color unit	-	5	<5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.1	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
Fluoride as F	mg/L	0.05	0.1	Not Detected	≤1.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Odour		-	-	Odourless	Odourless	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2150 B	Bangkok
pH at 25 degree C		-	-	7.2	6.5-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok

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Nanthawadee Somboon
Specialist 1



Accreditation No. 1031/47

Analysis / Test Report

Client : Ratchaburi Power Co., Ltd.

245 Moo 6, Tumbol Bann - Rai, Amphur Damnoen Saduak, Ratchaburi Thailand 70130

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2341539

Date Received : Apr 24, 2023

Date Reported : May 06, 2023

Report Number : 2622525-1

Page 32 of 32

Sample Number	2341539-8						
Sampled Date	Apr 24, 2023 12:40 PM						
Sample Description	Drinking water						
Location	Guardhouse Building						
Date Analysis Commenced	Apr 25, 2023						
Condition of Sample	Contained in six plastic bottles and two glass vials, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.0005	0.001	Not Detected	≤0.001	In-house method : STM 04-022 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 C	Bangkok
Sulfate	mg/L	0.15	0.5	<0.5	≤250.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Total Hardness as CaCO ₃	mg/L	0.5	1	1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C, 2340 C	Bangkok
Total Solids Dried at 103-105 degree C	mg/L	-	5	6	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Bangkok
Turbidity	NTU	-	0.1	0.20	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Bangkok

Guideline : Notification of the Ministry of Public Health No. 61 B.E. 2524 & 135 B.E. 2534 on bottled drinking water (No.2) & 316 B.E. 2553 & Pathogenic 416 B.E. 2563

Sampling By : Norrasat Komal

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Nant Somb

Nanthawadee Somboon
Specialist 1

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Admin Build's Pantry FL 1 (RPCL)



Admin Build's Pantry FL 1 (RPCL) Pr. area



Canteen (Water Cooler) Inlet



Canteen RO



Warehouse & Maintenance Building



Guardhouse Building

ภาพแสดงการเก็บตัวอย่างคุณภาพน้ำดื่ม

ภาคผนวก จ-11

ผลตรวจวิเคราะห์ตะกอนดิน



Analysis / Test Report

Report to : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur
Damnoen Saduak, Ratchaburi Thailand
70130
Attn : Pachanee Panitchakuljarus
Phone : 0-3271-9301
Fax : 0-3271-9300
Email : pachanee@rpcl.co.th

Project Name : Water Testing
Location :
P/O :

Lot ID: 1681039
Date Received : Dec 29, 2016
Date Reported : Jan 16, 2017
Report Number : 822671-1 Rev. No.1

Page 1 of 4

Reference Number 1681039-1
Sampling Date Dec 29, 2016
Sample Description ตัวอย่างดินที่ Basin2
Condition of Sample packed in one plastic bag
Date of Analysis Dec 30, 2016

Analyte	Unit	LOD	Result	Guideline Limit	Method
Chemical Testing					
Benzo (a) pyrene	mg/kg	-	0.07	≤2.9	Based on US EPA, Method 8270
Cyanide	mg/kg	-	<0.2	≤35	Based on US EPA, Method 9013 and 9010B
PCBs	mg/kg	-	<0.1	≤10	Based on US EPA, Method 3570 and 8082
Metals Testing					
Hexavalent Chromium	mg/kg	-	<1.00	≤640	Based on US EPA, Method 3060A and 7196A
Mercury	mg/kg	-	<0.10	≤610	Based on US EPA, Method 7471B
Arsenic	mg/kg	-	3.89	≤27	Based on US EPA, Method 3050B and 6010B
Cadmium	mg/kg	-	<0.50	≤810	Based on US EPA, Method 3050B and 6010B
Lead	mg/kg	-	3.93	≤750	Based on US EPA, Method 3050B and 6010B
Manganese	mg/kg	-	42.3	≤32000	Based on US EPA, Method 3050B and 6010B
Nickel	mg/kg	-	2.49	≤41000	Based on US EPA, Method 3050B and 6010B
Selenium	mg/kg	-	<0.50	≤10000	Based on US EPA, Method 3050B and 6010B
Pesticides					
2,4-D	mg/kg	-	<0.2	≤12000	Based on US EPA, Method 8270
Pentachlorophenol	mg/kg	-	<0.2	≤110	Based on US EPA, Method 3570 and 8270
Pesticides - Organochlorine Group					
alpha-BHC	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
gamma-BHC	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A

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Approved by

Sawitree N.

Sawitree Noisangiam
Assistant Manager



Analysis / Test Report

Report to : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur
Damnoen Saduak, Ratchaburi Thailand
70130
Attn : Pachanee Panitchakuljarus
Phone : 0-3271-9301
Fax : 0-3271-9300
Email : pachanee@rpcl.co.th

Project Name : Water Testing
Location :
P/O :

Lot ID: 1681039
Date Received : Dec 29, 2016
Date Reported : Jan 16, 2017
Report Number : 822671-1 Rev. No.1

Page 2 of 4

Reference Number 1681039-1
Sampling Date Dec 29, 2016
Sample Description ตัวอย่างดินที่ Basin2
Condition of Sample packed in one plastic bag
Date of Analysis Dec 30, 2016

Analyte	Unit	LOD	Result	Guideline Limit	Method
Pesticides - Organochlorine Group					
beta-BHC	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
delta-BHC	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Heptachlor	mg/kg	-	<0.2	≤5.5	Based on US EPA, Method 3570 and 8081A
Heptachlor and Heptachlor epoxide	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Heptachlor-Epoxide	mg/kg	-	<0.2	≤2.7	Based on US EPA, Method 3570 and 8081A
Chlordane	mg/kg	-	<0.2	≤110	Based on US EPA, Method 3570 and 8081A
Mirex	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Methoxychlor	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Lindane	mg/kg	-	<0.2	≤29	Based on US EPA, Method 3570 and 8081A
Endosulfan	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Endosulfan I	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Endosulfan II	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Endrin	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Aldrin	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Dieldrin	mg/kg	-	<0.2	≤1.5	Based on US EPA, Method 3570 and 8081A
2,4-DDD	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
4,4-DDD	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A

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Sawitree N.

Sawitree Noisangiam
Assistant Manager

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Analysis / Test Report

Report to : Ratchaburi Power Co., Ltd.
245 Moo 6, Tumbol Bann - Rai, Amphur
Damnoen Saduak, Ratchaburi Thailand
70130
Attn : Pachanee Panitchakuljarus
Phone : 0-3271-9301
Fax : 0-3271-9300
Email : pachanee@rpcl.co.th

Project Name : Water Testing
Location :
P/O :

Lot ID: 1681039
Date Received : Dec 29, 2016
Date Reported : Jan 16, 2017
Report Number : 822671-1 Rev. No.1

Page 3 of 4

Reference Number 1681039-1
Sampling Date Dec 29, 2016
Sample Description ตัวอย่างดินที่ Basin2
Condition of Sample packed in one plastic bag
Date of Analysis Dec 30, 2016

Analyte	Unit	LOD	Result	Guideline Limit	Method
Pesticides - Organochlorine Group					
2,4-DDE	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
4,4-DDE	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
2,4-DDT	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
4,4-DDT	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
DDT	mg/kg	-	<0.2	≤120	Based on US EPA, Method 3570 and 8081A
Endrin aldehyde	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 3570 and 8081A
Volatile Organics Compounds					
1,1,1-Trichloroethane	mg/kg	-	<0.2	≤1400	Based on US EPA, Method 5035 and 8260B
1,1,2-Trichloroethane	mg/kg	-	<0.2	≤19	Based on US EPA, Method 5035 and 8260B
1,1-Dichloroethylene	mg/kg	-	<0.2	≤1.2	Based on US EPA, Method 5035 and 8260B
1,2-Dichloroethane	mg/kg	-	<0.2	≤7.6	Based on US EPA, Method 5035 and 8260B
1,3-Dichloropropane	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 5035 and 8260B
2-Butanone	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 5035 and 8260B
Benzene	mg/kg	-	<0.05	≤15	Based on US EPA, Method 5035 and 8260B
Carbontetrachloride	mg/kg	-	<0.2	≤5.3	Based on US EPA, Method 5035 and 8260B
cis-1,2-Dichloroethylene	mg/kg	-	<0.2	≤150	Based on US EPA, Method 5035 and 8260B
cis-1,3-Dichloropropene	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 5035 and 8260B

Approved by

Sawitree N.

Sawitree Noisangiam
Assistant Manager

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Analysis / Test Report

Report to : Ratchaburi Power Co., Ltd.

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70130

Attn : Pachanee Panitchakuljarus

Phone : 0-3271-9301

Fax : 0-3271-9300

Email : pachanee@rpcl.co.th

Project Name : Water Testing

Location :

P/O :

Lot ID: 1681039

Date Received : Dec 29, 2016

Date Reported : Jan 16, 2017

Report Number : 822671-1 Rev. No.1

Page 4 of 4

Reference Number 1681039-1
Sampling Date Dec 29, 2016
Sample Description ตัวอย่างดินที่ Basin2
Condition of Sample packed in one plastic bag
Date of Analysis Dec 30, 2016

Analyte	Unit	LOD	Result	Guideline Limit	Method
Volatile Organics Compounds					
Dichloromethane	mg/kg	-	<0.2	≤210	Based on US EPA, Method 5035 and 8260B
Ethylbenzene	mg/kg	-	<0.05	≤230	Based on US EPA, Method 5035 and 8260B
Styrene	mg/kg	-	<0.2	≤1700	Based on US EPA, Method 5035 and 8260B
Tetrachloroethylene	mg/kg	-	<0.2	≤190	Based on US EPA, Method 5035 and 8260B
Toluene	mg/kg	-	<0.05	≤520	Based on US EPA, Method 5035 and 8260B
Total Xylene	mg/kg	-	<0.2	≤210	Based on US EPA, Method 5035 and 8260B
trans-1,2-Dichloroethylene	mg/kg	-	<0.2	≤210	Based on US EPA, Method 5035 and 8260B
trans-1,3-Dichloropropene	mg/kg	-	<0.2	No Standard	Based on US EPA, Method 5035 and 8260B
Trichloroethylene	mg/kg	-	<0.2	≤61	Based on US EPA, Method 5035 and 8260B
Vinyl chloride	mg/kg	-	<0.2	≤8.3	Based on US EPA, Method 5035 and 8260B

Guideline: Notification of National Environmental Board No. 25, B.E. 2547 (2004) issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992) published in the Royal Government Gazette No. 121 Special Part 119 D dated October 20, B.E.2547 (Soil Quality Standard for Other Purposes)

Note:

This Analysis test report is reissued to supersede report no. 822671-1, Date Reported : Jan 13, 2016

Remark :

1. LOD : Limit of Detection
2. "<" : Lower than LOQ (Limit of Quantitation)

Approved by

Sawitree N.

Sawitree Noisangiam
Assistant Manager

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ภาคผนวก ฉ

แผนการบำรุงรักษาเครื่องจักรกลของโรงไฟฟ้า



บริษัท ราชบุรีพาวเวอร์ จำกัด
Ratchaburi Power Co., Ltd.

1828 ถนนสุขุมวิท แขวงคลองเตย เขตคลองเตย กรุงเทพมหานคร 10260 โทร : 0-2311-5111 โทรสาร : 0-2332-3882
1828 Sukhumvit Road, Phraklong Tai, Phraklong, Bangkok 10260 Tel : 0-2311-5111 Fax : 0-2332-3882

Ref. No. RPCL/EGAT-NCC-2023 – 0001

July 7, 2023

Electricity Generating Authority of Thailand
53 Charansanitwong Rd.
Bang Kruai, Nonthaburi 11130

Attention: Mr. Worawat Chattham Tel.: (02) 436 2132
Director, System Control and Operation Division Fax: (02) 436 2193
Copy to: Mr. Padej Sermpnich Tel.: (02) 436 2812
Director of Power Purchase Agreement Division Fax: (02) 436 28930
Ms. Suwanna Makkasorn (CRESCO's MD) Tel.: (032) 719 309
Mr. Chana Thitisak (Director of RPCL Power Plant O&M Project)

Subject: RPCL 7-year Maintenance Planned Outage Schedule revision 0/2023

Attachment: RPCL 7-year Maintenance Planned Outage Schedule revision 0/2023

Dear Sir,

RPCL would like to submit the next 7-year Maintenance Planned Outage Schedule in year 2024 to 2030 as shown in the **Attachment 1** for your consideration.

Your approval of RPCL 7-year Maintenance Planned Outage Schedule revision 0/2023 is very much appreciated. Should you need further details please contact RPCL's Mr. Nathpat Champa (e-mail: nathpat@rpcl.co.th).

Sincerely yours,

(Mr. Boonchai Lersthavorntham)
Managing Director
Ratchaburi Power Company Limited

ภาคผนวก ช-1

สำเนาหนังสือชี้แจงการติดตั้งอุปกรณ์ดูดซับเสียงของ
เครื่องกั้นหันไอน้ำแบบถาวร
ทดแทนการใช้อุปกรณ์ดูดซับเสียงแบบเคลื่อนที่



บริษัท ราชบุรีเพาวเวอร์ จำกัด
Ratchaburi Power Co., Ltd.

1828 ถนนสุขุมวิท แขวงบางนาพรโอม กรุงเทพฯ 10260 โทร. 0-2311-5111 แฟกซ์ : 0-2332-3882
1828 Sukhumvit Rd., Bangchak Phrakonong Bangkok 10260 Tel. 0-2311-5111 Fax : 0-2332-3882

๒๗๘.

วันที่ 29 มีนาคม 2553

เรื่อง การดำเนินการตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม

เรียน อุตสาหกรรมจังหวัดราชบุรี

สิ่งที่ส่งมาด้วย

1. ภาพแสดงการใช้อุปกรณ์ดูดซับเสียงแบบเคลื่อนที่ขณะทำความสะอาดเครื่องกังหันไอน้ำ
2. ภาพแสดงอุปกรณ์ดูดซับเสียงแบบถาวรที่ติดตั้งในโรงไฟฟ้า
3. รายงานผลการตรวจวัดคุณภาพเสียงรอบโรงไฟฟ้า
4. ภาพแสดงป้ายเตือนการสวมใส่อุปกรณ์ป้องกันส่วนบุคคลก่อนเข้าพื้นที่

อ้างถึง หนังสือ รบ. 0028(3)/ว. 00540 ลงวันที่ 19 มีนาคม 2553 เรื่อง ให้ดำเนินการเป็นไปตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม โดยผลการตรวจสอบแจ้งว่าทางบริษัทยังไม่ได้ดำเนินการติดตั้งอุปกรณ์ดูดซับเสียงแบบเคลื่อนที่ขณะทำความสะอาดเครื่องกังหันไอน้ำสำหรับเตรียมการเดินเครื่องนั้น บริษัทฯ ขอเรียนชี้แจงดังนี้

อุปกรณ์ดูดซับเสียงแบบเคลื่อนที่เป็นอุปกรณ์ชั่วคราวที่เหมาะสมสำหรับการติดตั้งใช้งานในระยะก่อสร้าง และช่วงทดสอบการเดินเครื่อง เพื่อลดผลกระทบด้านเสียงขณะทำความสะอาดท่อไอน้ำของเครื่องกังหันไอน้ำ ซึ่งทางบริษัทฯ ได้ทำการติดตั้งขณะทำความสะอาดท่อไอน้ำดังกล่าวเป็นที่เรียบร้อยแล้วในช่วงการก่อสร้าง และช่วงทดสอบการเดินเครื่องดังแสดงในเอกสารแนบ 1

ทั้งนี้ เพื่อเป็นการป้องกันผลกระทบด้านเสียงจากการเดินเครื่องของโรงไฟฟ้าในระยะดำเนินการ บริษัทฯ ได้ติดตั้งอุปกรณ์ดูดซับเสียงของเครื่องกังหันไอน้ำแบบถาวร ทดแทนการใช้อุปกรณ์ดูดซับเสียงแบบเคลื่อนที่ ซึ่งมีความเหมาะสมในการใช้งานมากกว่า โดยติดตั้งมาตั้งแต่เริ่มดำเนินการเมื่อวันที่ 1 มีนาคม 2551 ดังแสดงในเอกสารแนบ 2 ซึ่งผลการตรวจวัดคุณภาพเสียง ตั้งแต่เริ่มดำเนินการตามมาตรการติดตามตรวจสอบพบว่า คุณภาพเสียงรอบโรงไฟฟ้าอยู่ในเกณฑ์มาตรฐานมาโดยตลอดดังแสดงในเอกสารแนบ 3

อนึ่งตามที่มีผลการตรวจวัดระดับเสียงในสถานประกอบการเกินค่ามาตรฐานในบางจุดนั้น ทางบริษัทฯ ขอเรียนชี้ว่า ระดับเสียงในบางพื้นที่ของโรงไฟฟ้าอาจมีค่าเกิน 90 dB(A) ซึ่งเป็นค่ามาตรฐานกำหนดเพื่อป้องกันไม่ให้ถูกจ้างต้องสัมผัสระดับเสียงดังกล่าวเกิน 8 ชั่วโมงต่อวัน แต่เนื่องจากพื้นที่ดังกล่าวอยู่ภายในอาคาร ซึ่งเป็นที่รวมของเครื่องจักร และไม่มีพนักงาน หรือเจ้าหน้าที่ในโรงไฟฟ้าปฏิบัติงานเป็นการประจำ เครื่องจักรดังกล่าวถูกควบคุมโดยระบบควบคุมอัตโนมัติจากห้องควบคุม ทางบริษัทจึงได้กำหนดมาตรการป้องกันโดยให้ผู้ปฏิบัติงานที่ต้องเข้าไปในพื้นที่ดังกล่าวในกรณีจำเป็น ต้องสวมใส่อุปกรณ์ป้องกันเสียง และได้ติดตั้งป้ายเตือนบริเวณทางเข้าเพื่อบังคับให้นุคคลที่เข้าไปในพื้นที่ต้องสวมใส่อุปกรณ์ป้องกันอันตรายส่วนบุคคลก่อนเข้าบริเวณดังกล่าว ดังแสดงในเอกสารแนบ 4

ขอแสดงความนับถือ



(นายสำคัญ รัศมีบรรจงกิจ)

กรรมการผู้จัดการ



Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีเอนเนอร์ยี จำกัด

RPCL Site - Working Progress

Project: 2x700MW Gas Fired Power Plant

Period: October 29 - November 3, 2007

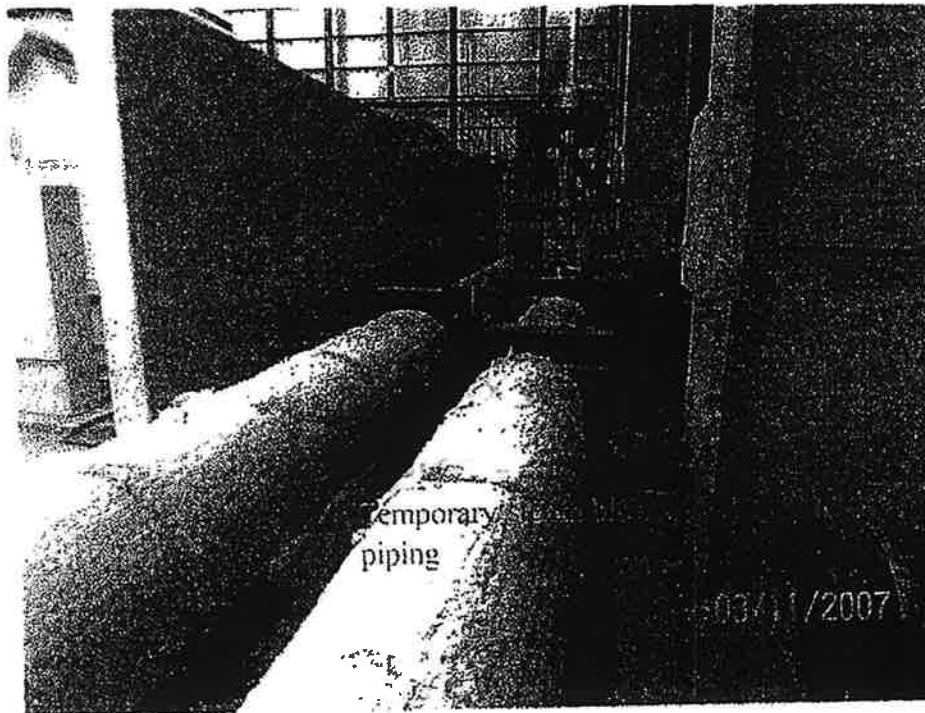


RPCL Site - Working Progress

Ratchaburi Power Co., Ltd.

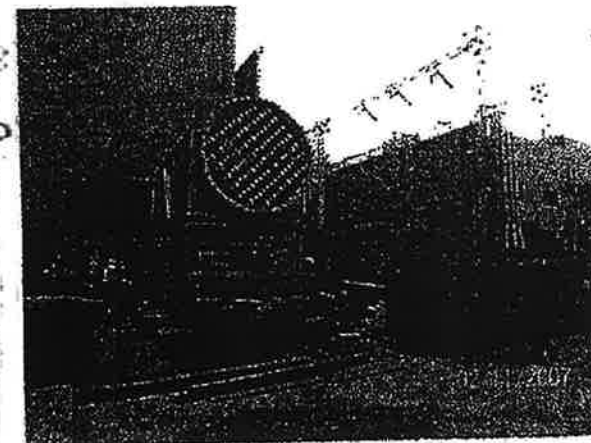
บริษัท ราชบุรีเอนเนอร์จี้ จำกัด

ST Bldg B#1



HIP/LP Turbine & STG 10

- Completed coupling between LP-HIP.
- Under install insulation of HIP Turbine.
- Under install the temporary steam blow piping and silencer.





Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีเอนเนอร์จี้ จำกัด

RPCL Site - Working Progress

Project: 2x700MW Gas Fired Power Plant

Period time : 26-November - 1-December 2007.

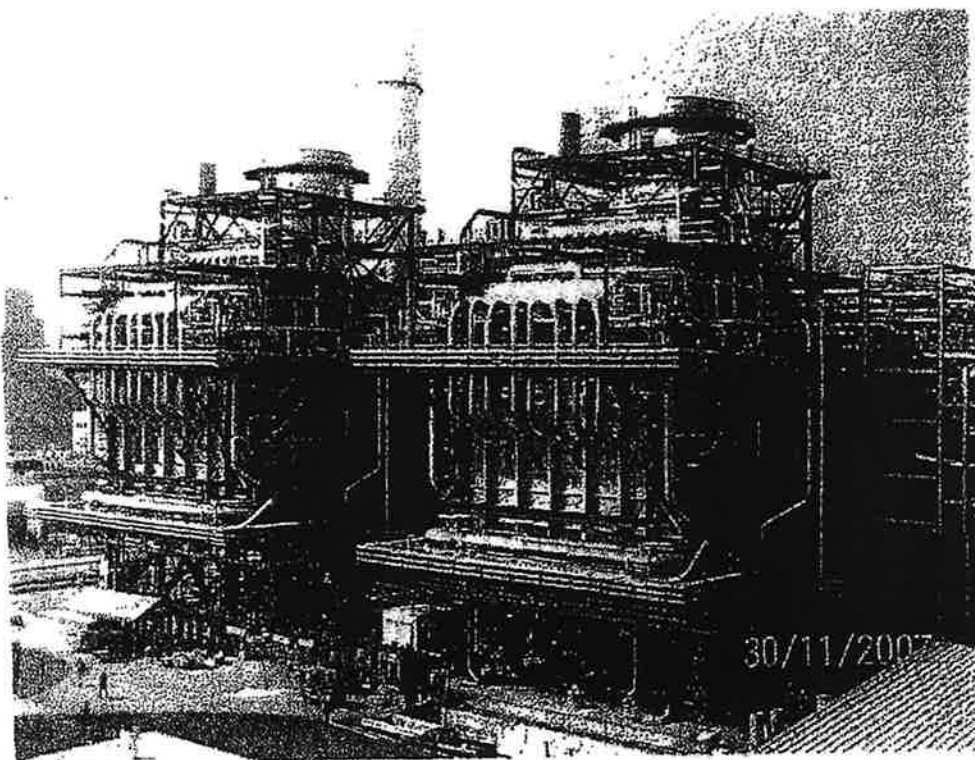


RPCL Site - Working Progress

Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีพาวเวอร์ จำกัด

HRSG 11 & 12



HRSG 11

- Completes steam blow during 8-11 Nov 07.
- Insulation , painting work, punch item almost was completed.
- Safety Valve test will be done on 3-5 Dec 07.

HRSG 12

- Completes steam blow during 19-22 Nov 07.
- Insulation , painting work, punch item almost was completed.
- Safety Valve test will be done on 6-8 Dec 07.



Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีพาวเวอร์ จำกัด

RPCL Site - Working Progress

Project: 2x700MW Gas Fired Power Plant

Period: January 6-19, 2008



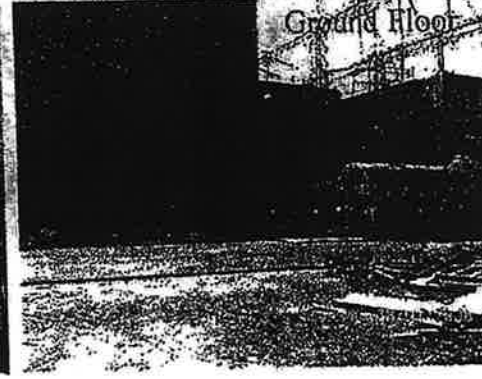
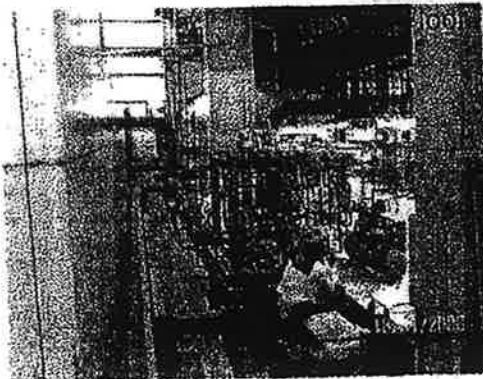
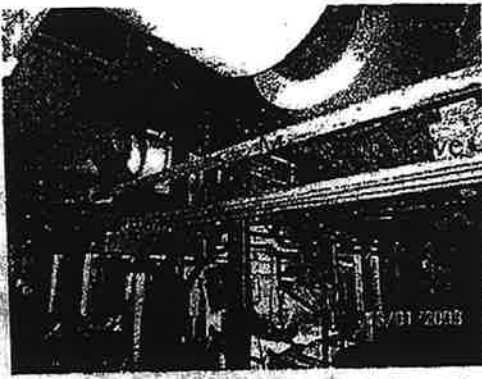
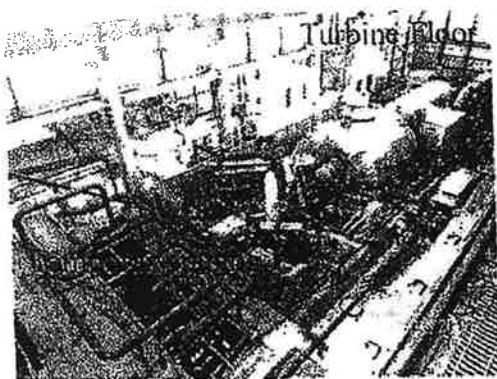


RPCL Site - Working Progress

Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีพาวเวอร์ จำกัด

ST Building B#2



ST Building B#2

Mechanical work

- Insulation work for main steam pipe and main stop valve.
- Completed coupling between LP to HIP &STG.
- Under install temporary piping for steam blow & silencer.
- Under installation enclosure panel.



Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีเอนเนอร์จี้ จำกัด

RPCL Site - Working Progress

Project: 2x700MW Gas Fired Power Plant

Period: January 20 - February 2, 2008



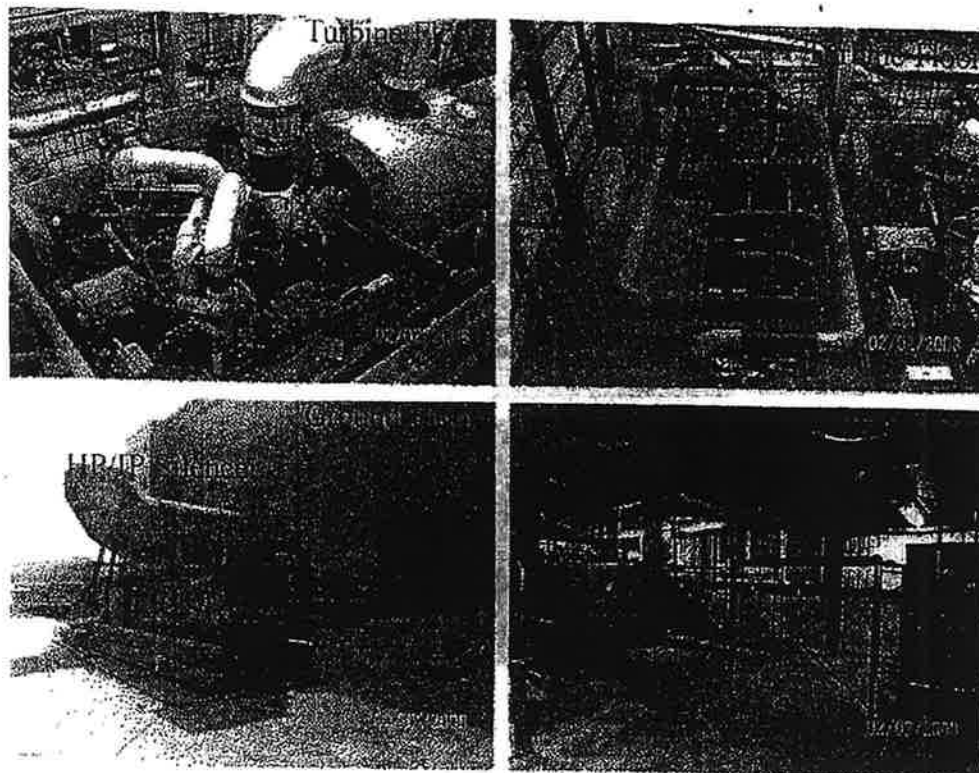


RPCL Site - Working Progress

Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีพาวเวอร์ จำกัด

ST Buidling B#2



ST Building B#2

Mechanical work

- Under install the temporary piping for steam blow.
- Installation enclosure panel & insulation of crossover pipe.



Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีเพาเวอร์ จำกัด

RPCL Site - Working Progress

Project: 2x700MW Gas Fired Power Plant

Period: February 3-16, 2008

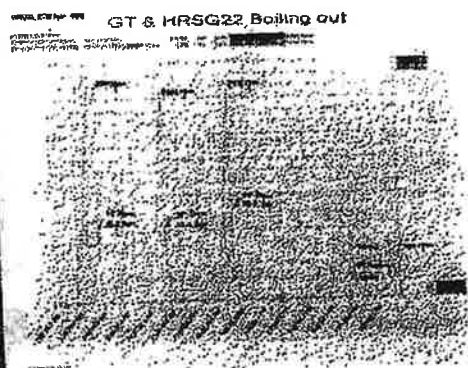
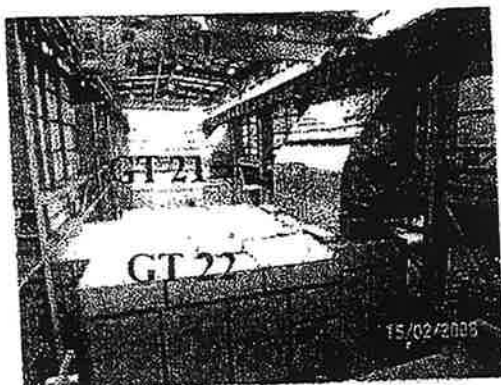


RPCL Site - Working Progress

Ratchaburi Power Co.,Ltd.

บริษัท ราชบุรีพาวเวอร์ จำกัด

GT Building B#2

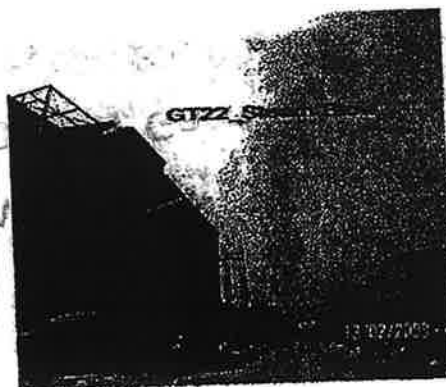
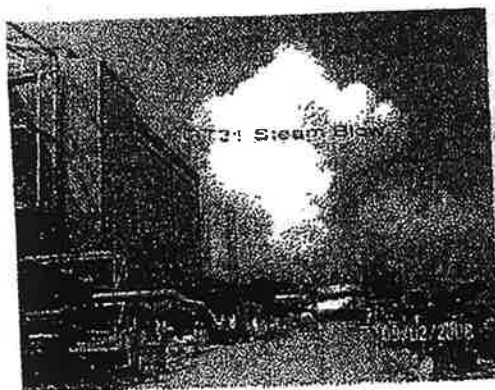


GT21

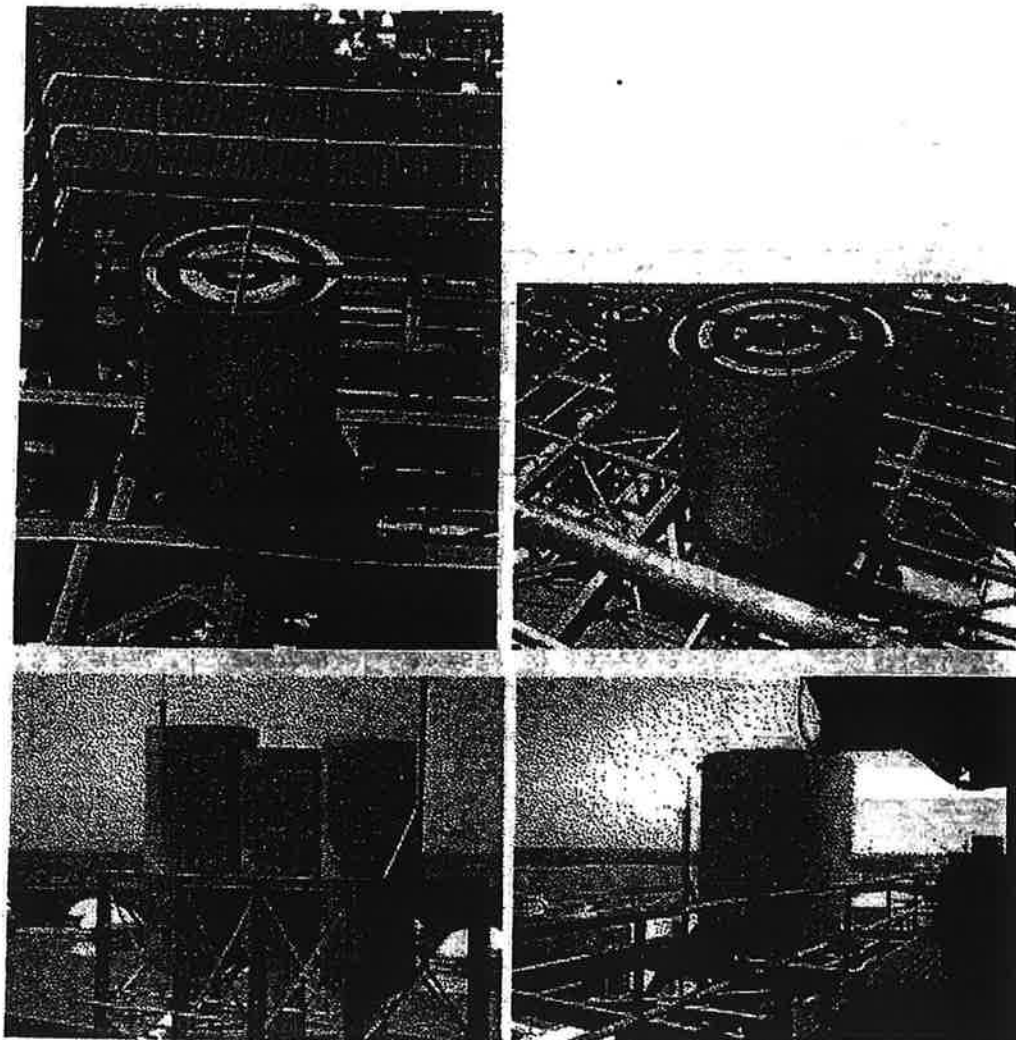
- GT21 was firing on January 25, 2008.
- GT21 was completed Steam Blow on February 10, 2008.
- GT21 First Synch will be on February 24, 2008.

GT22

- GT22 was first firing on February 1, 2008
- GT22 was completed Steam Blow on February 14, 2008.
- GT22 First Synch will be on February 28, 2008.



การติดตั้งอุปกรณ์ดูดซับเสียงแบบถาวรที่บริเวณปลายท่อของทุกลูกสูบที่ก่อให้เกิดเสียงดัง



โรงไฟฟ้าราชบุรีเพาเวอร์

รายงานผลการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม และมาตรการติดตามตรวจสอบ
คุณภาพสิ่งแวดล้อม ฉบับที่ 9 (กรกฎาคม-ธันวาคม 2552)

ภาคผนวก ณ.

ตาราง ณ-8 ผลการตรวจวัดระดับเสียงโรงไฟฟ้าราชบุรีเพาเวอร์ (ปี 2549-ปี 2552)

ค่าระดับเสียงเฉลี่ย 24 ชั่วโมง

จุดตรวจวัด	ปี 2549	ปี 2550	ปี 2551	ปี 2552
ที่ตั้งโรงไฟฟ้าราชบุรีเพาเวอร์	56.5-60.9	57.2-61.0	61.8-65.1	63.5-64.6
ที่ตั้งโรงไฟฟ้าราชบุรี	59.8-61.6	57.7-61.2	59.0-62.7	57.5-62.5
บ้านชาวเหนือ	51.4-56.7	52.0-56.3	56.6-62.3	58.7-61.0
บ้านสามเรือน	48.4-58.4	53.3-56.7	54.3-61.4	52.9-57.1
มาตรฐาน	70			

ค่าระดับเสียงสูงสุด

จุดตรวจวัด	ปี 2549	ปี 2550	ปี 2551	ปี 2552
ที่ตั้งโรงไฟฟ้าราชบุรีเพาเวอร์	86.2-97.3	90.3-96.7	93.4-97.8	87.6-93.4
ที่ตั้งโรงไฟฟ้าราชบุรี	78.4-89.4	87.6-92.4	89.5-92.7	85.6-92.5
บ้านชาวเหนือ	83.1-89.7	82.4-85.4	82.4-95.2	86.2-92.6
บ้านสามเรือน	87.9-93.9	82.5-84.6	84.7-93.5	78.3-92.8
มาตรฐาน	115			

ค่าระดับการรบกวน

จุดตรวจวัด	ปี 2549	ปี 2550	ปี 2551	ปี 2552
ที่ตั้งโรงไฟฟ้าราชบุรีเพาเวอร์	2.4-8.1	3.4-9.3	3.6-8.7	6.7-9.5
ที่ตั้งโรงไฟฟ้าราชบุรี	2.0-6.0	1.9-5.3	2.5-7.9	2.8-8.9
บ้านชาวเหนือ	1.4-7.9	2.7-7.9	2.5-6.8	3.3-8.8
บ้านสามเรือน	3.9-7.6	4.2-8.7	2.0-6.1	2.2-7.7
มาตรฐาน	10			

หมายเหตุ: มาตรฐานระดับเสียง ตามประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดค่าระดับเสียงรบกวนและระดับเสียงที่
เกิดจากการประกอบกิจการโรงงาน พ.ศ.2548



บริษัท ราชบุรีเพาเวอร์ จำกัด
Ratchaburi Power Co., Ltd.

ป้ายเตือนความปลอดภัยที่ติดตั้งบริเวณด้านหน้าทางเข้าพื้นที่ของกระบวนการผลิต

