

ภาคผนวก ข

เอกสารประกอบการปฏิบัติตามมาตรการป้องกัน
และแก้ไขผลกระทบสิ่งแวดล้อมและมาตรการติดตามตรวจสอบ
คุณภาพสิ่งแวดล้อม

ภาคผนวก ข-1

เงื่อนไขการสั่ง จ้างผู้รับเหมาตามมาตรการป้องกัน
และแก้ไขผลกระทบสิ่งแวดล้อม

1 PURPOSE

This procedure defines the methodology for identifying the environmental aspects of Thai Jurong Engineering Limited, (hereafter "TJEL") and in determining those aspects that have or can have significant impact(s) on the environment. In addition, this procedure ensures that the significant environmental aspects of TJEL are taken into account in establishing, implementing, and maintaining its Environmental Management System (EMS).

2 SCOPE

This procedure covers all activities within the defined scope of TJEL EMS that it can control and those that it can influence taking into account planned or new developments, new or modified activities, products, and services.

3 DEFINITION

- **Environmental Aspect** – Elements of organization's activities, products, and services that can interact with the environment. This may include the use of materials or products and generation of wastes and by-products that may impact the environment.
- **Environmental Impact** – Any change to the environment, whether adverse or beneficial, wholly or partially resulting from the organization's environmental aspects.
- **Significant Environmental Aspect** – An environmental aspect that has or can have significant impact on the environment, taking into account actual environmental effects; associated inherent potential risks and liabilities; applicable legal and regulatory requirements; concerns of the TJEL employees, customers, neighbors, shareholders, and other key stakeholders; and the continued good reputation of the company.
- **Process** – refers to activities undertaken to deliver an output which may be in the form of product or service.
- **Normal Operation** – Routine operation according to normal operating procedure.
- **Abnormal Operation** – Planned deviations from normal procedure e.g. start-ups, shutdowns, and maintenance
- **Emergency Situation** – Unplanned events e.g. fire, accidental damage, release, natural calamity, etc.

- **Probability** – refers to the measure or likely that an impact of the identified aspect will occur
- **Consequence** – refers to the measure of the gravity of the impact should an aspect occur

4 RESPONSIBILITIES

Position	Responsibilities
TJEL Site Manager	<ul style="list-style-type: none"> • Approve Environmental Aspect and Impact Analysis Worksheet • Approve Register of Environmental Aspects and Impacts
TJEL HSE Manager	<ul style="list-style-type: none"> • Review Environmental Aspect and Impact Analysis Worksheet • Review Register of Environmental Aspects and Impacts
Deputy HSE Manager/ HSE Officer	<ul style="list-style-type: none"> • Assist Section Manager / Section Supervisor in identifying aspect and corresponding impact and assessing the completion of the register of environmental aspects and impacts
Section Manager / Section Supervisor	<ul style="list-style-type: none"> • Prepare Environmental Aspect and Impact Analysis Worksheet and Register of Environmental Aspects and Impacts • Ensure that all activities, products, and services of planned or new developments and modifications are identified and evaluated • Periodically assess, update and maintain 009-Environmental Aspect and Impact Analysis Worksheet and 010-Register of Environmental Aspects and Impacts • Communicate the significant environmental aspects to all employees
Subcontractors	<ul style="list-style-type: none"> • Identify aspects and impacts of their activities in accordance with this procedure or other procedures subject to the approval of the TJEL HSE Manager

5 PROCEDURE

This procedure outlines the method for identifying and evaluating significant environmental aspects associated with activities that are carried out in the site. TJEL and its subcontractors shall follow this procedure for activities and operations under its control. In all cases, the TJEL HSE Manager may apply discretion and accept a subcontractor's own environmental assessments and control process, but only if they satisfy the requirements of this procedure.

5.1 Environmental Aspect Identification

A team facilitated by the Section Manager / Section Supervisor should identify the environmental aspects associated with each of the activities using the environmental aspect checklist.

For each activity the environmental aspects are identified for the following conditions:

- (1) Normal operations
- (2) Abnormal operations
- (3) Emergency situations

Note that the above categories are listed for completeness. They may not all apply to all activities.

The principle of material balance shall be used to identify all the environmental aspects per processes/ activities. Material balance accounts for materials entering (inputs) and leaving (outputs) a system/ process/ activity. The list provided in Table 1: Environmental Aspect Category below may be used as a reference in identifying possible input and output categories for environmental aspects. The list is not exhaustive; hence, should not restrict other categories from being identified.

Table 1: Environmental Aspect Category

Input (Consumption/ Use of...)	Output (Emission/ Discharge/ Generation of...)
Use of Energy <ul style="list-style-type: none"> Natural Gas Electricity Fuel 	Air Emissions <ul style="list-style-type: none"> Heavy equipment emissions Stack/ vent release/ fugitive emission
Consumption of Resources <ul style="list-style-type: none"> Water Mineral 	Water Discharges <ul style="list-style-type: none"> Heavy Equipment Wash Water Domestic Wastewater Industrial Wastewater

- Use of Materials**
- Use of Office Supplies
 - Use of Operation Material
 - Use of Raw Materials
- Generation of Solid Wastes**
- Waste Papers
 - Scrap Materials
 - Old/ Obsolete Office Equipment
 - Containers

- Use of Chemicals**
- Hazardous Materials (ex. Acids, Solvents, etc.)
 - Radioactive Materials
- Chemicals Release/ Leak/ Spill**
- Hazardous Waste
 - Radioactive Waste

A worked example illustrating the environmental aspects associated with cement batching process is attached to this procedure.

5.2 Determining the Significance of Environmental Aspect

The Section Manager / Section Supervisor shall review and evaluate the environmental aspects and determine their significance. The aspect and impact analysis form shall be used for the purpose of conducting this evaluation.

The Aspect and Impact Analysis form is completed using the information gathered from the aspect checklist. The 1st column is completed by identifying the condition of each aspect if it is normal, abnormal or emergency condition.

The Section Manager / Section Supervisor shall also review the inventory of environmental aspects and determine those over which the organization can control and over which it can expected to exert an influence. Environmental aspects under the organization's control and influence shall be deemed as 'direct aspects'. Aspects that are neither under the organization's control nor influence shall be deemed as 'indirect aspects'. Indirect aspects shall not be evaluated further for their significance.

For each of the direct aspects, identify the corresponding actual and potential environmental impacts under normal operations, abnormal operations and emergency situations.

In general, environmental aspects can have one or more impacts. Table 2: Environmental Impact Category below shows possible positive and negative impacts of an aspect. This table can be used as a guide in identifying environmental impacts.

Table 2: Environmental Impact Category

Positive Impact	Negative Impact
Resource Conservation	Resource Depletion – For all input environmental aspects in Table 1: Environmental Aspect Category
Pollution Prevention Pollution Reduction	Pollution/ Contamination/ Degradation <ul style="list-style-type: none"> • Air • Water • Land/ Soil

Note that the above list is by no means exhaustive.

***To include Risks and Opportunities**

For Environmental aspects identified in normal operating conditions, the following criteria shall be used to determine its significance.

- (1) High Potential Impact – all emissions and discharges controlled by regulations and with prescribed limits.
 - All reportable emissions and discharges to the environment
 - Storage and handling of chemical/ hazardous substances
 - Use of ozone depleting substances
- (2) Medium Potential Impact
 - Use of natural resources
 - Aspects likely to give rise to complaints from the community and public
- (3) Low Potential Impact – any aspects that does not fall into the above categories.

For **abnormal operation and emergency conditions**, the following steps shall be undertaken to determine the significance of the environmental aspects identified.

- (1) Determine the probability of the environmental impact occurring with reference to Table 3: Probability Criteria Table below. This information is used to complete the 7th column.

Table 3: Probability Criteria Table

Rating	Probability
E	Happens several times per year in this project
D	Happens several times per year in our Corporate
C	Incident has occurred in our Corporate
B	Heard of in Construction Industry
A	Never heard of in Construction Industry

- (2) Determine the consequence of the environmental impact with reference to Table 4: Consequence Criteria Table below. This information is used to complete the 8th column.

Table 4: Consequence Criteria Table

Rating	Consequence
5	Persistent severe environmental damage or severe nuisance extending over a large area. Loss of commercial or recreational use or nature conservancy resulting in major financial consequences for TJEL. Ongoing breaches well above statutory or prescribed limits.
4	Severe environmental damage. The company is required to take extensive measures to restore the damaged environment. Extended breaches of statutory or prescribed limits, or widespread nuisance.
3	Limited discharges affecting the neighborhood and damaging the environment. Repeated breaches of statutory or prescribed limit or many complains
2	Minor contamination, discharge or damage to the environment, but no lasting effect. Single breach of statutory or prescribed limit, or single complaint.
1	Slight environmental damage, within the fence and within systems. Slight financial consequences.
0	No environmental damage. No financial consequences.

- (3) A worked example of aspect and Impact analysis worksheet is attached to this procedure.

5.3 Register of environmental aspects and impacts

The Section Manager / Section Supervisor shall compile the register of environmental aspects and impacts using the form Register of Environmental Aspects and Impacts. All direct aspects with high or medium significance as identified in Environmental Aspects and Impacts Analysis Worksheet shall be included in the Register of Environmental Aspects and Impacts.

Where operational controls or procedures exist for controlling and mitigating the impacts, these shall be referenced in column 4 of the register as shown in Form 3.

The environmental objectives and targets for controlling and mitigating the identified significant environmental aspects and impacts shall be established by following the guidelines outlined in objectives, targets and programs section of Environmental Management System procedure. These shall be referenced in column 6 of the register as shown in Form 3.

The Environmental Aspects and Impacts Analysis Worksheet and Register of Environmental Aspects and Impacts as shown in Form 3 shall be reviewed by the TJEL HSE Manager and approved by the Site Manager.

5.4 Frequency of review

The assessment process is a live process and the register shall be reviewed and maintained as follows:

- Part of the management review
- Planned or new developments
- Process/ activity modification
- Adoption of new technology
- Change of legal requirements

- Enactment of new laws
- Occurrences of emergencies or incidents
- Non-conformances identified during internal and external audit
- Environmental complaints

5.5 Communication

The Section Manager / Section Supervisor shall communicate the significant environmental aspects to their respective groups, general employees and subcontractors. TJEL will also communicate its significant environmental aspects to appropriate government agencies and other requesting parties as the need arises.

6 ENVIRONMENT ASPECT: NOISY WORKS

- ❖ Noisy works such as piling, grinding, welding, operation of electrical generator and machine
- ❖ Environment impact:
- ❖ Excessive noise pollution that may direct cause to exert one's influence for workers working in the site and nuisance to neighbors.
- ❖ Preventive measure:
- ❖ Site Manager/supervisor should use machine noise abatement or machine install noise reducer;
- ❖ HSE personal to inspect monitoring noise and to ensure it is within limit by government and to keep record to noise monitoring;
- ❖ HSE personal to inspect the site and ensure that no action will cause excessive noise pollution for workers and tiresome neighbor;
- ❖ Machine equipment need to check and to maintain regular interval and to report attachment.

7 ENVIRONMENT ASPECT: DUSTY WORKPLACE

- ❖ Dusty workplaces result from earthwork, vehicles move in the site.

Environment impact:

- ❖ Excessive dust will to cause air pollution and affect to health of employees; Dark smoke emission and dirt, earth spill the road during transportation.
- Preventive measure:**
- ❖ Ensure no overloading of vehicle
 - ❖ HSE personnel and security guard to check and ensure that no dark smoke emission from machine equipment and to check vehicles transporting load to ensure no spilled out of material, earth from the vehicles cause air pollution.
 - ❖ Arrangement of D1 car sprinkle-water on hot dry dust in the dust to avoid a dusty environment

8 WASTE MANAGEMENT (management for non-hazardous waste and hazardous waste)

Management is the collection, transport, processing or disposal, managing and monitoring of waste materials. Optimal management measures using methods "3 Rs" waste Reduce, Reuse and Recycle.

a. Environment aspect: Solid waste disposal

Environmental impact:

- ❖ Land and water pollution if improper waste treatment

Preventive measure:

Provide general waste disposal bin and rubbish bins on the site;

- ❖ Waste disposal bin should segregated and labeled e.g. : solid waste, metal waste, hazardous waste, oil waste, paint cans.
- ❖ Record of waste disposal kept at site;
- ❖ Guide employees waste separation at waste source;
- ❖ Guide and educate workers on proper waste disposal in waste disposal bin;
- ❖ Attend licensed general and hazardous waste disposal contractor and regular removal hazardous chemical by licensed contractor.
- ❖ Site manager need to economic contract with Environment Company to collect and handling waste in the site.
- ❖ Site manager need to economic contract with Environment Company to collect and handling scrap in the site.

b. Environment aspect: Hazardous substances and storage facilities

Environment impact:

- ❖ Chemical, oil spillages on the ground, sewerage during treatment.

Preventive measure:

- ❖ Built wall around chemical and oil spillage area;
- ❖ Safety officer, supervisor and material checker to ensure drain off rainwater accumulation in the wall area;

Inspection of Safety that the handling and storage of chemical/hazardous must follow SDS;

- ❖ Inspection of Safety in the site to ensure no chemical/hazardous and oil spillage on the ground during handling;
- ❖ HSE officer to check the proper PPE for site personnel handling chemical/hazardous substance;
- ❖ HSE officer to educate chemical/hazardous and oil spillage handlers need to follow proper handling and emergency procedure.

9 ENVIRONMENT ASPECT : Toilet Facilities in the site

Environment impact:

- ❖ Not enough toilet facilities with the number of workers, poor drainage system, poor maintenance in toilet.

Preventive measure:

- ❖ Site HSE Officer needs to check and ensure toilet facilities are adequate and well maintained;
- ❖ To ensure proper connection between sewerage system with temporary septic tank;
- ❖ To provide enough lighting in the toilet and wash room area;
- ❖ HSE personnel to ensure daily check tidy up cleaning toilet basin, drain;
- ❖ Periodically check the drainage system, septic tank of the toilet and take measures to correct the problem immediately;
- ❖ HSE personnel to ensure the drainage system, septic tank are not blocked by the material or waste;



- ❖ Site Manager need to establish a contract with Environment Company to vacuum septic tank (at frequency of at least 3 monthly)

10 RECORDS

- Form 1- Objectives and Targets Monitoring
- Form 2- Operational Control Monitoring
- Form 3 – Register of Environmental Aspects and Impacts


	Environmental Aspect and Impact Identification Procedure	Doc. No	
	PERFORMANCE MONITORING AND MEASUREMENT	Rev. No	
		Page	

Form 1 - Objectives and Target Monitoring

Environmental Aspects	Objective	Target	Key Performance Indicator	Actual Performance	% Achieved	Start and Target Date	Monitoring Date	Days Delayed

ภาคผนวก ข-2

แผนการซ่อม บำรุงรักษา และดูแลการทำงานของเครื่องจักร

	THAI JURONG ENGINEERING LIMITED	Doc No.: TJEL-HSE-001 Rev.: 1 Date: 11.08.2022
TITLE:	ENVIRONMENTAL, HEALTH & SAFETY (EHS) MANAGEMENT SYSTEM	
PROJECT:	GLOW SPP2 REPLACEMENT PROJECT	

6.0 MAINTENANCE REGIME FOR MACHINERY AND EQUIPMENT

6.1 OBJECTIVE

The main objectives in establishing proper maintenance regime of machinery and equipment are as follows:


- to prevent accidents due to equipment failure; and
- to eliminate or minimise the need for troubleshooting a breakdown machine or equipment.

6.2 APPOINTMENT OF MAINTENANCE CO-ORDINATOR

- 6.2.1 In-house site Maintenance Co-ordinator or Material Controller shall be appointed by TJEL site management.
- 6.2.2 The Maintenance Co-ordinator or Material Controller shall be responsible for the inventory as well as maintenance regime and inspection schedule of all machinery, equipment and temporary electrical installations used at site.
- 6.2.3 The Maintenance Co-ordinator or Material Controller shall arrange a proper storage location for keeping all unused machinery and equipment.
- 6.2.4 The issuance of all machinery and equipment used by employees shall be done and controlled by the TJEL Maintenance Co-ordinator or Material Controller or his authorised personnel.
- 6.2.5 TJEL Maintenance Co-ordinator or Material Controller shall implement a system where all good working, faulty/damage and machinery/equipment under maintenance placed in the workshop, be clearly identified and segregated.
- 6.2.6 All ignition keys to machinery at workshop shall be kept properly in locked cabinet. Maintenance Co-ordinator or Material Controller shall ensure that only authorised personnel are allowed access to the ignition keys.

6.3 MACHINERY AND EQUIPMENT LISTING


- 6.3.1 The followings are machinery and equipment which shall be included in the list.
 1. Lifting machines including mobile cranes, electrical winches and lifting platforms.
 2. Lifting gears including mechanical winches, chain and lever blocks, sling belts and wires and chain ropes.
 3. Machinery such as electrical generators, welding machines, air-compressor.

	THAI JURONG ENGINEERING LIMITED	Doc No.: TJEL-HSE-001 Rev.: 1 Date: 11.08.2022
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PROJECT:	GLOW SPP2 REPLACEMENT PROJECT	

4. Storage containers such as gas cylinders, fuel storage tanks, chemical storage containers including paint and solvents.
 5. Power Driven Hand tools such as Electrical / Pneumatic Drill, Hammer, Explosive Powered tools e.g. Ramset.
 6. Work access machinery / equipment such as Scaffolds, Ladders and Hydraulic Platforms.
 7. Portable electrical tools and motorised machinery such as drill set, electrical saw, grinder, circular saw.
 8. Electrical equipment such as portable socket outlet assembly, distribution panels, extension cable with sockets and plugs, etc.
 9. Gas meter and noise monitoring instrument.
 10. Emergency equipment including fire extinguishers, torchlights, breathing apparatus.
 11. Vehicles such as trucks, pickups, vans and forklift.
- 6.3.2 A list of all machinery and equipment shall be maintained
- 6.3.3 Maintenance record for welding machines shall be record shall be maintained
- 6.3.4 All machinery and equipment list as mentioned above, shall be kept and updated by the Maintenance Co-ordinator or Material Controller appointed by the site management.

6.4 EQUIPMENT INSPECTION / MAINTENANCE / EXAMINATION & TESTING PROCEDURE

- 6.4.1 The procedure for a worksite maintenance regime shall include the following:
- inspection system of machinery and equipment at appropriate interval;
 - effective preventive maintenance system which reduce "Breakdown" maintenance;
 - defects are identified and reported; and
 - appropriate recording and tracking maintenance system ensuring historical record are kept.
- 6.4.2 General planned inspections for machinery and equipment is as shown in table below.


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TITLE:	ENVIRONMENTAL, HEALTH & SAFETY (EHS) MANAGEMENT SYSTEM	
PROJECT:	GLOW SPP2 REPLACEMENT PROJECT	

Planned inspections for machinery and equipment

S/N	Description of machinery and equipment	Type of general EHS inspection	Frequency	By whom
1.	Mobile crane	Physical / Operational checks	Starting of every shift	Crane operator
2.	Lifting gears / appliances	Physical checks	Monthly	Competent person
3.	Portable electrical hand tools e.g. grinder, circular-saw, drill	Physical / operational checks	Monthly	Competent person
4.	Gas cutting and welding equipment	Physical checks	Once in two weeks	Competent person
5.	Emergency equipment e.g. portable fire extinguishers.	Physical checks	Monthly	Competent person
6.	Power Tools	Physical / operational checks	Monthly	Competent person
7.	Scaffold	Physical checks	Weekly	Competent person

6.5 BREAKDOWN MAINTENANCE PROCEDURE

- 6.5.1 Breakdown of machinery or equipment shall be recorded in MTN-QOHSE-03 form.
- 6.5.2 Damage or faulty machinery or equipment shall be segregated and brought to workshop or store for follow-up check and repair by concerned Site Supervisor.
- 6.5.3 A tag must be attached to identify damage of faulty machinery or equipment to prevent accidental usage. The tag shall indicate "Out of Order".
- 6.5.4 The ignition key shall be removed and returned to Maintenance Co-ordinator or Material Controller for safe keeping.
- 6.5.5 No one shall use damage or faulty equipment or machinery.
- 6.5.6 No one shall tamper, modify or fabricate own equipment, tool or machinery for use at the worksite.

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PROJECT:	GLOW SPP2 REPLACEMENT PROJECT	

6.6 SUB-CONTRACTOR RESPONSIBILITIES

- 6.6.1 All statutory machinery or equipment brought to site must first get clearance from TJEL site management. A notification of statutory equipment for sub-contractor form shall be forwarded to TJEL site EHS department for approval.
- 6.6.2 TJEL sub-contractor shall not use any statutory machinery or equipment without approval from TJEL site management.
- 6.6.3 All machinery and equipment used at site shall be in good working condition. Faulty or damaged equipment or machinery shall be segregated and tagged with "Out of Order".
- 6.6.4 TJEL sub-contractor machinery and equipment shall adhere with inspections schedule.
- 6.6.5 Record of maintenance and inspections shall be kept at site for verification and inspection.

6.7 RECORDS

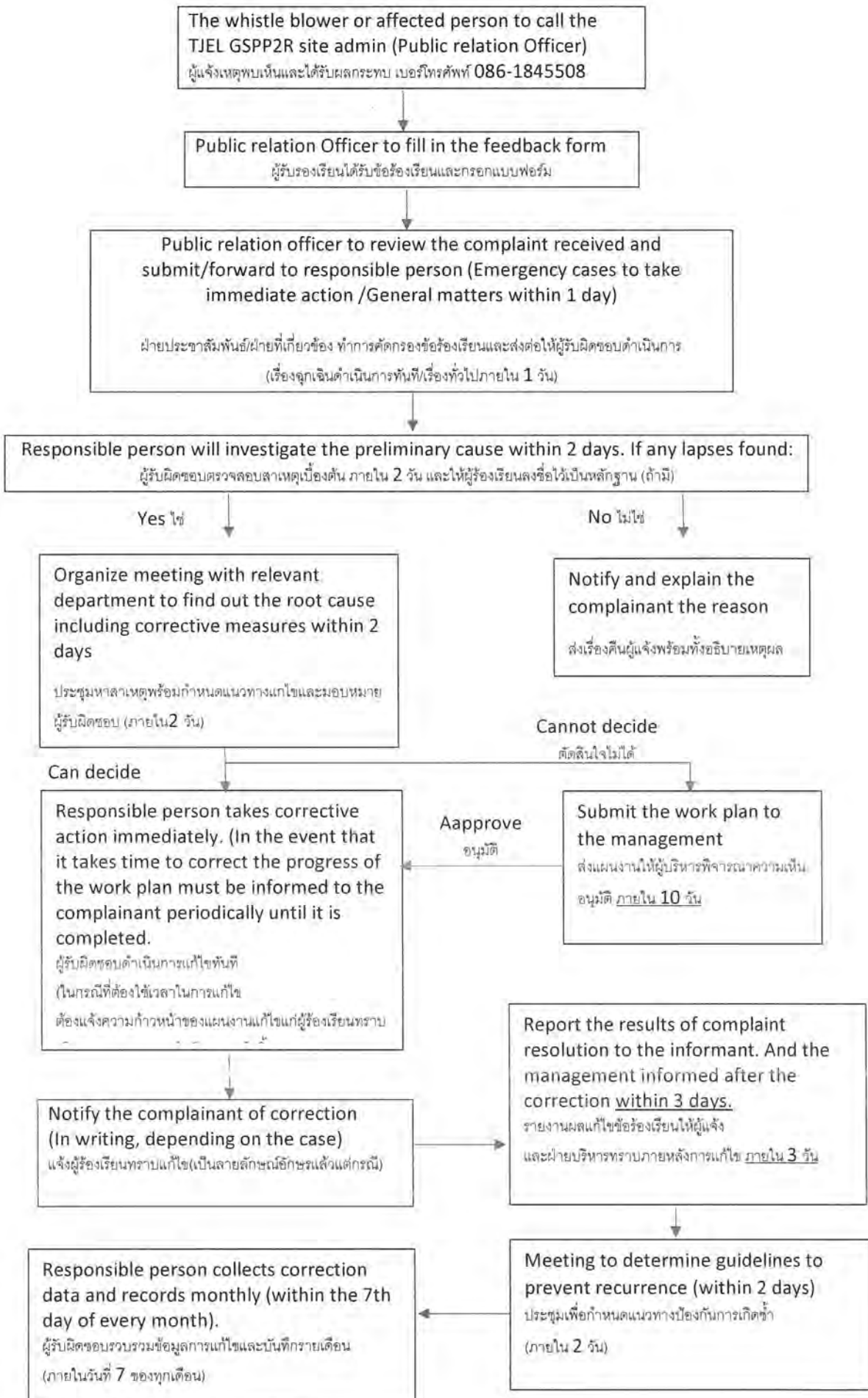
- 6.7.1 All inspection and maintenance record of machinery and equipment shall be kept at site for reference.
- 6.7.2 All machinery and equipment operating and maintenance manual shall be kept at site properly for reference.
- 6.7.3 Statutory inspection record shall be kept at site properly for reference.
- 6.7.4 Maintenance co-ordinator is responsible to keep all maintenance regime and inspection of all machinery and equipment record at site for inspection and verification by site management.

ภาคผนวก ข-3

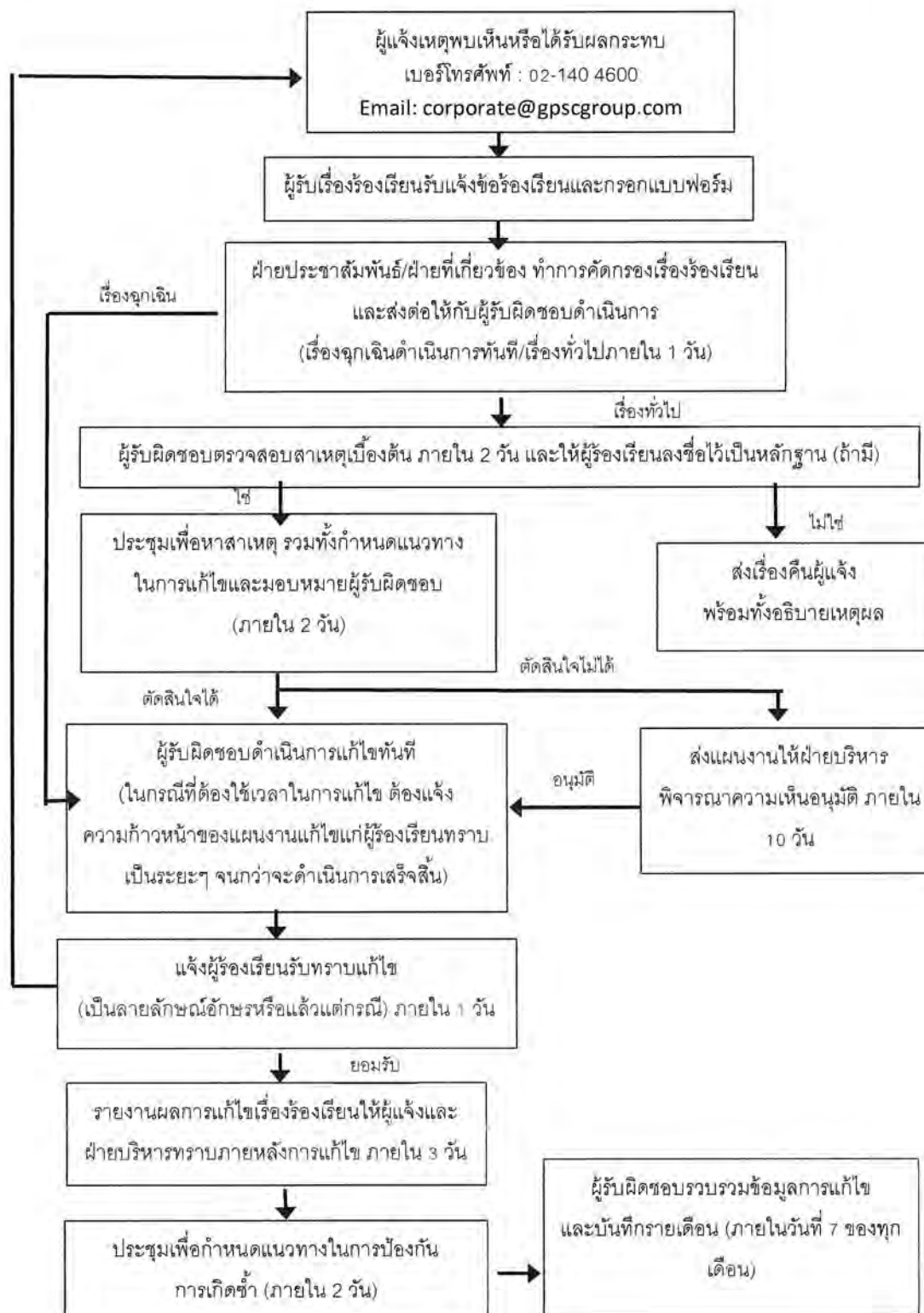
ผังขั้นตอนการรับเรื่องร้องเรียน

Feedback Procedure

ขั้นตอนการรับข้อร้องเรียน



ภาพที่ 5 ขั้นตอนการรับเรื่องร้องเรียน



ภาคผนวก ข-4

แบบบันทึกข้อร้องเรียน



Public relation officer เขียนที่ :

Date/วันที่.....Month/เดือน.....Year/พ.ศ.Time/ เวลา.....

Subject / เรื่อง

ข้าพเจ้า/Name

อยู่บ้านเลขที่/Address..... หมู่ที่/No..... บ้าน/No.....

ตำบล/District.....อำเภอ/ SUB District.....

จังหวัด/Province

ข้อร้องทุกข์ – ร้องเรียน บริษัท เนื่องจาก/ ISSUE / FEEDBACK / AREA FOR IMPROVEMENT

[illegible]

ภาคผนวก ข-5

กฎระเบียบการคมนาคมและกฎความปลอดภัย
ของยานพาหนะที่เข้า-ออกพื้นที่ก่อสร้างของโครงการ

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- (2) ITS DISCLOSURE TO A THIRD PARTY, OR
- (3) ITS USE FOR ANY PURPOSE OTHER THAN THOSE FOR WHICH IT IS SUPPLIED

[illegible]

OWNER:

GPSC 

GLOW SPP2 COMPANY LIMITED

OWNER'S ENGINEER:

EPC CONSORTIUM:


JEL JURONG ENGINEERING LIMITED **JEL** THAI JURONG ENGINEERING LIMITED

PROJECT:

GLOW SPP2 REPLACEMENT PROJECT

TITLE:

Site Security Control Procedure

	JOB NO.	SHT NO.	REV NO
DISTRIBUTION	THAI JURONG ENGINEERING LIMITED 	PROJECT DOCUMENT NO. GSP2R-70-YYY-PJ-A-1104	A
		31057	1/58

1 PURPOSE

The purpose of this procedure is to provide Thai Jurong Engineering Limited. ("TJEL" hereafter) the necessary security guidelines and programs to be implemented during the demolition work and construction phases of the project.

The procedure will specify the minimum security requirements applicable to the protection of employees, property and the workplace in all TJEL operations and elsewhere in connection with the execution of the project.

2 SCOPE

- ❖ The procedure shall apply to all premises controlled by the TJEL during the materials transportation / Gate in and out, and all persons accessing such premises during these phases. It shall not apply to the client facilities outside the worksite, where instead, arrangements and controls as determined by the client shall be applicable.
- ❖ The procedure details the criteria according to which the duties of all concerned and/or personnel are to be carried out security controls and services.
- ❖ TJEL shall comply with all relevant government rules and regulations, practices, standards, codes.

3 RESPONSIBILITIES

Site Manager

The Site Manager shall;

- ❖ Be responsible for the security of the onsite facilities, which are under the control of TJEL.
- ❖ Ensure that security procedure and organization are established, and its derivative programme, procedures and work practices are implemented to provide adequate and continuous security coverage to the project.
- ❖ Communicate with local and governmental law enforcement bodies and security organizations in accordance with both legislative and the Client requirements.
- ❖ Evaluate the performance of the security organization and personnel.
- ❖ Ensure that all agreed recommendations arising from investigations into theft, sabotage, unauthorized entries etc. are closed out.

Site HSE Manager / Administrative Manager

The HSE Manager and Administrative Manager has the responsibility for the day-to-day operations of the security program. He/She shall:

- ❖ Reports to the Site Manager and has a functional relationship which defers to the HSE Manager on issues affecting HSE on the project.
- ❖ Manage, review and develop the security operation to ensure that it fulfills project requirements.
- ❖ Prepare security procedures and associated documentation necessary to fulfill the purpose of this security procedure.
- ❖ Ensure that the security resources are adequate to cover all project needs and site security operations reflect the requirements of the project.
- ❖ Liaise with Client and security management.
- ❖ Conduct independent audits to observe conformance with established security programs and to determine the effectiveness of guard force activities; report results and recommendations to the Site Manager.
- ❖ Make a report without delay to the Site Manager when any security irregularities or breaches or incident have taken place.
- ❖ Devise and conduct security training programs geared to continuously train all guard force personnel in conjunction with TJEL's Fire, Safety and Security services.

Security Guards

They shall report directly to the Security Supervisor who shall rotate their locations on a regular basis and shall maintain a firm, calm and courteous in enforcing the rules as to command respect, thereby contributing to the public image of not only the guards themselves but also the organization behind them.

The guards shall keep themselves in clean and neat and be competent to perform their duties by implementing the following:

- ❖ Check conformance to site requirements concerning security passes, in relation to both personnel and vehicles entering the project at all accesses/egresses to site.
- ❖ Explain all applicable HSE and security rules to the visitors. (Eg. Speed Limit 20k/m)
- ❖ Inform applicable persons or offices of the arrival of a visitor, vehicle and/or equipment and check on the visitor pass. Keep records of all visitors, vehicles

and equipment daily submit to the Security Supervisor.

- ❖ Patrol and observe those areas to which they have been assigned.
- ❖ Check integrity of buildings, sensitive areas, and fence lines during work hours.
- ❖ Assist in the control of traffic.
- ❖ Conduct searches of all vehicles entering and exiting the site. Interrogate individuals entering or leaving the site, if necessary.
- ❖ Check Material Passes and Waste Manifests against contents in the vehicle.
- ❖ Respond to alarm signals (fire alarms or other danger signals) and participate in the emergency response procedures and emergency response training and activities.
- ❖ Communicate adequately with the shift oncoming to ensure smooth turn over and to facilitate execution of the duties.
- ❖ Enforce the Client/TJEL rules and regulation regarding security.
- ❖ Maintain a control system for locks and keys used for TJEL property.
- ❖ Make routine or special reports, as prescribed, concerning designated matters and unusual circumstances.
- ❖ No eating, smoking and reading while on duty. Such is only allowed at the designated time and places during rest periods.
- ❖ Never alter work-timing roster unless authorized by the Security Supervisor / TJEL Management Team.
- ❖ Never resort to violence to solve any problems.

4. DEFINITIONS

Term	Meaning
Owner	GLOW/GPSC
Owner Engineer	TBA
EPC Contractor	JEL/TJEL
Other Contractor	Other Sub Contractors assigned by TJEL
Visitor	Any person entering the site other than employees of GLOW/GPSC/JEL/TJEL
Security Personnel	Any person assigned to control access of personnel, material/equipment and vehicles that enter and exit from project site.
Access	The right to enter and exit a controlled area.

5. SECURITY OBJECTIVES

- ❖ To complete the Project without sustaining theft or damage to materials and equipment.
- ❖ Provide a safe and secure working environment for all the employees and provide anti-social behavior.
- ❖ To establish a means of stopping unauthorized individuals or vehicles from entering site areas.
- ❖ To establish an effective working relationship and cooperate with the OWNER and local relevant authorities.
- ❖ To ensure entry and exit of all equipment, material and substance shall be checked and controlled.

6. SECURITY ORGANIZATION

- ❖ TJEL shall employ the site security company which is incorporated in Thailand to meet duty of care on this security plan.
- ❖ The site security company shall nominate Security Team Leader and be form as part of TJEL ADMIN Section. All security staff shall have a background of previous security work, preferably with experience of working in either military or police organizations.
- ❖ Working timing of security guards shall be on duty on 24 hours. 2 shift (Day & Night)

7. ISSUE AND CONTROL OF IDENTIFICATION BADGE

- ❖ Before mobilizing to work, All TJEL employees shall undergo site safety induction either by GLOW or TJEL, and after completion will be provided with Permanent Project company identification badge.
- ❖ Visitors and vendors coming to the site and those on a short time visit will be required to send in a one-day advance request (Emails, Telephone) to get permission from the management team (Such as Site manager, Materials Control Manager) before allowing to enter the site. A temporary visitor pass shall be issued to the person as he/she accesses at the temporary main entrance gate.
- ❖ Visitors / Vendors with intention to visit site shall also be comply to site safety



rules and regulation. (As such, Safety helmet, Safety shoes and Safety Goggle must be fully equipped before entering)

- ❖ All personnel shall wear the badge at all times while on the work site and make it readily available for inspection, upon request, for proper identification.
- ❖ It is the visitors and vendors responsibility to ensure that ID Cards are made available, used and prevent from misuse or lost.
- ❖ Loss or damage to Project company identification badge shall be immediately reported to TJEL Safety Department, and they shall investigate the reason of loss and also verify personnel record before re-issuing new company visitors pass.
- ❖ Sample TJEL IDs are shown in Attachment A.

8 GATE CONTROL

- ❖ TJEL shall provide dedicated mean of control of entrances and exits for personnel, equipment, vehicles, materials and tools which shall be manned 24 hours per day, 7 days per week including holidays.
- ❖ Control gates will be fitted with a minimum of sliding gates, lighting, and entry/exits lanes for personnel walkway.
- ❖ Equipment Mobilization and Demobilization Gate Pass shall be implemented for the control and appropriate management of safety and security.
- ❖ Authorization for Materials and Tools Gate Pass entering and exiting shall be implemented for the control and management of safety and security.
- ❖ All vehicles entering and exiting the gate control shall be subject to a security search by the security guards. Visitors and Vendors shall understand the requirements for such searches and shall request in their assistance in this respect.
- ❖ Vehicles being subject to search shall be directed to a designated area where they can be searched without blocking traffic flow.
- ❖ Drivers of the delivery trailers / trucks shall fully comply to the site rules and regulation as mentioned (7. ISSUED AND CONTROL OF IDENTIFICATION BADGE)
- ❖ Entry of such person mentioned below is prohibited, unless otherwise authorized by the TJEL Management Team and shall be fully responsible for such person presence at site.



- Sales people and peddlers
- Visitor carrying camera or video camera without permission
- People who appear to be under the influence of drugs and alcohol
- Visitors to workmen
- Unauthorized personalities, unless authorized and accompanied
- People in poor health or with or suspected contagious diseases
- ❖ Visitor / Vendors shall inform the TJEL personnel. The host person (TJEL representative) shall assume full responsibility for the safety, security and actions of his visitor whilst on the site.
- ❖ Under no circumstances are visitors allowed to drive on the laydown site, unless they have written permission from TJEL Management Team.
- ❖ In the event that a driver breaches any work site rules and regulations relating to vehicle on the project, this may result in suspension or permanent ban into project site.
- ❖ The Security Guard at the temporary control gates shall be responsible in checking Material and Tools Gate Pass against content in the vehicle, and if discrepancy is found, the vehicle shall not be allowed to leave the site. The Security Guard shall immediately inform the TJEL Material Control Section, his superior of the material or tools.

9 PERSONNEL TEMPORARY GATE PASS

- ❖ All vehicles entering and leaving the site may be subject to search by the Security Guards at the controlled gates.
- ❖ Random searches of personnel may, as necessary, be carried out by the Security Guards or their superiors (Security Guard) at the gate to ensure that nothing leaves the site without a duly authorized Materials and Tools Gate Pass. However, the statutory rights of all individuals are to be respected and in no way infringed.
- ❖ In case any person refuses to submit to a search, representative of the TJEL Personnel shall be notified and required to come to the gate, where the person will again be requested to allow for the search. Where such a request is again refused by the person, the TJEL Management Section may notify the local police authorities of the situation, requesting their attendance at the site and possible further actions.



10 SECURITY OF STORAGE YARD, MATERIALS AND PLAN

- ❖ The warehouses and laydown yards are recognized as potential areas of significant security risk areas and appropriate safe guarding facilities including fencing and lighting shall be provided.
- ❖ They shall receive appropriate coverage by the Security Team, and their layout shall reflect the need to minimize the positioning of materials close to the perimeter fencing.
- ❖ The gate of the storage area shall be kept closed during night time, unless night activities are planned, and frequent security patrols shall take place.
- ❖ Therefore, to the minimum TJEL shall:
 - Utilize a system of identification on all of their tools, equipment, and plant and provide secured containers / storage for the above.
 - Maintain an inventory of such tools and equipment.
- ❖ All works taking place outside of normal working hours needs to be notified, in advance, to the TJEL Management Team and Security Guard Duty Shift Supervisor so that he can advise the patrol Security Guard and the gate control Security Guards for the movement of personnel and material.

11 SITE SECURITY CONTROL

To maintain security control in the site areas, the following shall be provided:

- ❖ The laydown areas shall be fenced according to the project requirements.
- ❖ Entrance/exit gate shall be provided and accompanied by guardhouse that will be manned by two or three Security Officers, as the situation dictates.
- ❖ Security personnel shall be provided with hand held radio or mobile phone to facilitate efficient and quick communications with each other and to relevant authorities.
- ❖ Suitable uniform or other designated clothing shall also be provided for Security personnel for ease of identification.
- ❖ CCTV Camera shall be installed along the perimeter of the fencing deemed necessary by TJEL management

12 SECURITY PATROLS

Regular and random security patrols shall be carried out, particularly at night around laydown and warehouse areas for the purpose of:

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- ❖ Detering acts of theft, vandalism, sabotage, etc.
- ❖ Maintaining a fire watch

13 GENERAL RULES FOR SECURITY PERSONNEL

Security personnel shall report all witnessed or reported policy violations and shall enforce all orders, rules and regulations as instructed by the Site Security Manager. Security personnel shall not leave their post unless properly relieved or required to do so in performance of their assigned duties.

Logbook

- ❖ In addition to the use of required register i.e. visitor's log, vehicle entry log, the security personnel shall maintain a logbook to record incidents, observations and instructions given, whether received verbally or in writing.

Conversation with others

- ❖ Security personnel shall restrict conversation with colleagues, vendors, contractors, etc. to job related matter only.

Guard Instructions

- ❖ In the event of an emergency situation, the Security Officer shall call the TJEL Management Team immediately.
- ❖ Security personnel receiving instructions from someone other than the TJEL Management Team shall advise that person that instruction cannot be carried out unless authorized by the TJEL Management Team.

False Information

- ❖ A Security Officer who willfully issues false information or makes false statements regarding assignment / responsibility to security personnel, supervisors, or client's personnel, shall be subject to disciplinary action as decided by the TJEL Site Manager.

Gratuities

- ❖ Security personnel are prohibited from accepting gratuities of any form from anyone for any purpose. Any offer of a gratuity shall be reported promptly to the TJEL Management Team.

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Public/Personnel Relations

- ❖ Security Officers shall use discretion and care in the questioning of project employees and in the handling of possible irregularities.
- ❖ Under no circumstances shall a Security Officer question a person, except in the presence of a reliable witness, i.e. under no circumstances shall a Security Officer threaten, hurt, assault or coerce in any way, any person.
- ❖ Every effort shall be made by Security personnel to positively identify people who refuse to comply with normal security instructions. All such instances shall be reported immediately to the TJEL Management Team.
- ❖ Security personnel at all times shall be professional and helpful in their approach and in their dealings with the TJEL workforce and visitors they come into contact with in the course of their duties. It is expected that they and their work places be clean and tidy at all times.

Problems with Instructions

- ❖ Security Officers who experience difficulty in interpreting instructions, duties, etc. shall obtain advice from the TJEL Materials Control Team. The excuse "was not sure" or "I did not understand" is not acceptable if any efficient security operation is to be carried out to the benefit of the project.

14 FIRE PREVENTION & PROTECTION

Smoking Control

- ❖ Smoking is prohibited inside offices. Smoking will also be restricted on the work site. Some designated smoking area will be provided by TJEL as per approval by the TJEL HSE Manager.
- ❖ Smoking or open flame is prohibited within 15 meters of paint storage or paint work areas, gasoline storage, or similar flammable liquids or gases, fuel dispensing vehicles or refueling operations, garages or similar occupancies, or activities in a highly hazardous and inflammable environment.
- ❖ TJEL shall provide metal containers in all buildings and areas in which smoking is permitted. An ashtray and fire extinguisher will be provided in each designated smoking area. Warning signs will be placed at all entrances to buildings or areas where smoking is prohibited.



Flammable Liquids

- ❖ Flammable liquids shall be handled and stored in accordance with TJEL not limited to Clients requirements,
- ❖ Sources of ignition, including smoking, are prohibited in all hazardous areas as defined by TJEL or Clients and project HSEMS plan.
- ❖ Flammable liquids will not be used for any cleaning purposes. Only non-toxic, non-flammable products will be used.
- ❖ Plastic and glass containers are strictly prohibited for storing flammable liquids.
- ❖ All containers used for storing flammable liquids shall be of an approved safety type and suitably identified and labeled in 50mm height letters.
- ❖ All electrical installations and equipment located at storage areas will be in accordance with the relevant standards.
- ❖ Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved metal safety cans shall be used for handling flammable liquids in quantities greater than 4 litres. For quantities of 4 litres or less, only metal containers shall be used.
- ❖ All bulk quantities of flammable liquids shall be stored in a separate containers
- ❖ When storing materials, clear aisle space is to be maintained as approach lanes to firefighting equipment, sprinkler control valves.
- ❖ All flammable liquids in unauthorized containers (commercial or otherwise) and all flammable liquids transferred from bulk supplies will be placed in safety-approved containers before being brought to work areas. Whenever the seal is broken on issue stock and the original container no longer meets safety criteria, the entire contents will be transferred to approve containers.
- ❖ Flammable liquids in work areas shall be kept in approved properly labeled metal safety cans. Dispensing cans for gasoline, thinner and similar highly flammable liquids shall be of an approved design.
- ❖ No damaged or leaking containers shall be permitted in work or storage areas. Containers of flammable liquids shall be regularly inspected for leakage by TJEL. Flammable liquids will not be permitted to enter any drainage system on the Project.

Waste Containers

- ❖ Combustible Materials

Sufficient metal waste containers with metal lids will be provided for each effected area (Laydown workshops, painting areas etc) for the safe disposal of flammable waste and rags. The same type of container will be used for storing clean rags and waste for use in these areas.

❖ **Separate Containers**

Metal containers, plainly marked with name of contents, will be used for the separate disposal of oil and paint-soaked rags, waste paper shavings, and other flammable materials. At the end of each day, or shift, these containers will be emptied or removed by concern group to a safe location outside the building, for collection by the Waste Management personnel.

- ❖ Waste containers will be placed in locations which permit full use of fire aisles. Waste materials must not be accumulated in areas such as warehouses, welding shops and paint spray rooms, where flammable liquids or gases are stored or used.

Compressed Gases

- ❖ Cylinders containing compressed or liquefied gas shall not be dropped or exposed to impact. They will be isolated from open flames, heat and direct sunlight. Valves and connections shall be kept free of mineral oil and greases, and separated from welding leads, spark producing equipment and electrical leads.
- ❖ Cylinders containing oxygen, acetylene, chlorine, Sulphur dioxide and liquefied petroleum or fuel will be kept upright and secured to prevent damage.
- ❖ Storage of oxygen, acetylene, fuel gas and LPG cylinders, whether empty or full shall be separated by 6 meters or a one-hour fire wall.
- ❖ The valves of all compressed gas cylinders will be closed and protective caps installed prior to movement unless (where in use) cylinders are secured to an operating unit or welding cart. Valves will be shut off at the cylinder and not at the regulator or dispensing tip. Suitable valve actuator keys will be attached to all cylinders when in use.
- ❖ Gas from cylinders must be used through a pressure-reducing regulator. Never allow oxygen to enter regulators suddenly. Mixing gases in cylinders is prohibited. Do not use cylinders with improperly operating valves or defective regulators. Broken or damaged regulators shall be removed from service immediately.

- ❖ Hoses will be properly secured with hose clamps at each end (wire shall not be acceptable) and will be checked regularly for deterioration. Leaks or suspected leaks of gas or vapors shall be immediately reported to TJEL HSE Department. All oxygen and acetylene gas cylinders will be fitted with functional flash back arresters located at both ends the cylinder regulators and the torch.

Fire Reporting

- ❖ All fires shall be reported immediately to TJEL.
- ❖ The person reporting the fire shall supply the following information:
 - Location and area
 - Reporters name
 - Status of fire (if known)
- ❖ Ensure the person receiving your call repeats your message back to you for accuracy.
- ❖ If you have no access to a telephone and you witness a fire you must report the emergency to any HSE member.
- ❖ If possible alert HSE Department using emergency channel (e.g. use your own radio, locate the nearest TJEL Field Supervisor) otherwise raise alarm. Refer to attachment 6 (Emergency Contact List)
- ❖ All personnel are expected to attempt to immediately extinguish all small controllable fires discovered insofar as safety permits. Fires out of control must be reported immediately and persons discovering fire shall spread the alarm by all previously stated means.
- ❖ Client must be notified of all fires immediately. TJEL shall provide a written report within 24 hours, detailing the causes, conditions, damage, and cost estimates, corrective actions taken, and firefighting equipment used.
- ❖ All firefighting equipment used must be replaced or recharged immediately after the fire is suppressed. Personnel shall not put themselves at risk while reporting or suppressing fires

15 TRAFFIC CONTROL

- ❖ All road traffic shall strictly follow all site and local area traffic rules and regulations. Posted speed limits shall be obeyed and all other traffic signs within the project site.



- ❖ Avoid transporting materials and equipment during rush hours, 7:00 a.m. - 8:00 a.m. and 4:30 p.m. - 5:30 p.m.
- ❖ Parking shall be on designated parking areas only. Security personnel will control and direct traffic at the entrance gate during peak movement hours.
- ❖ Violators of these traffic regulations shall be dealt with accordingly with proper disciplinary action.

16 THREAT OF SITE SECURITY BY CIRCUMSTANCES

- ❖ In the event that site security appears seriously threatened by circumstances outside, an extra session of the safety committee meeting shall be held to take most appropriate measures to cope with the situation.
- ❖ The event is such as the following, but not limited to:
 - Repeatable robbery of materials by organized group
 - Unreasonable requirements or obstruction by local personnel in organizations
 - Organized claim from local residents
 - Organized strike by labor
 - Unusual weather such as typhoon, heavy rain, flooding of river, etc
 - Riot

17 RECORD

The following records shall be kept for duration of three months.

- ❖ Security Patrol Log
- ❖ Materials Gate In/Out Pass
- ❖ Applications for Vehicle/Equipment permits (if necessary)

18 ATTACHMENTS

- Attachment A – Emergency Call Number List and Flow Chart
- Attachment B – Emergency Site Assembly Point
- Attachment C – Security ID Pass
- Attachment D – Gate In & Out Pass
- Attachment E – Visitor Admittance Form
- Attachment F – Security Guard Company Profile



Attachment A Emergency Call Number List and Flow Chart



Attachment B Emergency Site Assembly Point

Attachment C Security ID Pass



Attachment D
Gate In & Out Pass

Attachment E
Visitor Admittance Form



Attachment F Security Guard Company Profile

ภาคผนวก ข-6

สำเนาเอกสารการขออนุญาตใช้น้ำ
จากสำนักงานนิคมอุตสาหกรรมมาบตาพุด



สำนักงานนิคมอุตสาหกรรมบางปะหัน
เลขที่ 1 ถนนโอ-หนึ่ง ตำบลนาตาพุด
อำเภอมือง จังหวัดระยอง 21150

23 มีนาคม 2565

เรื่อง อนุญาตให้ขึ้นประปา

เรียน ผู้จัดการ บริษัท ไทยรุ่งเรืองเอ็นจิเนียริ่ง จำกัด

อ้างถึง หนังสือบริษัท ลงวันที่ 18 มีนาคม 2565 เรื่อง ขอลงความอนุเคราะห์ใช้ประปา

สิ่งที่ส่งมาด้วย รายละเอียดเงินประกันน้ำ และเงินค่าธรรมเนียมการใช้

ตามที่ บริษัท ไทยรุ่งเรืองเอ็นจิเนียริ่ง จำกัด ซึ่งเป็นผู้รับเหมาโครงการก่อสร้างโรงไฟฟ้า ของ บริษัท โกลว์ เอสพีที 2 จำกัด ได้ส่งหนังสือถึง สำนักงานนิคมอุตสาหกรรมบางปะหัน (สนท.) แจ้งความประสงค์ขออนุญาตใช้น้ำประปา พื้นที่สำนักงานชั่วคราว บริเวณที่จอดรถถนนโอ-5 รายละเอียดตามที่อ้างถึงนั้น

สนท. พิจารณาแล้วอนุญาตให้บริษัทฯ เป็นผู้ใช้น้ำประปาได้ ทั้งนี้ สนท. ขอแจ้งให้บริษัทฯ ทราบ และดำเนินการดังนี้

1. บริษัทฯ ต้องเป็นผู้รับผิดชอบและบำรุงรักษาท่อน้ำและอุปกรณ์รับน้ำต่าง ๆ โดยเริ่มต้นจุดเชื่อมต่อจากท่อเมนหลักของ สนท. ให้อยู่ในสภาพสมบูรณ์พร้อมใช้งานได้ตลอดเวลา
2. ให้บริษัทฯ มาติดต่อกับสัญญาการใช้น้ำกับ สนท. พร้อมกับชำระเงินค่าธรรมเนียมการใช้ และเงินประกันสัญญาการใช้น้ำ รายละเอียดตามสิ่งที่ส่งมาด้วย
3. ก่อนการดำเนินการติดตั้งอุปกรณ์รับน้ำต่าง ๆ ให้บริษัทฯ ติดต่อกับสำนักงานกับ บริษัท โกลบอล เพอิตี เซอร์วิส จำกัด (Global) โทรศัพท์ 038-683848 เพื่อขอ Work Permit และกำกับดูแลการดำเนินการ และเมื่อ บริษัทฯ ติดตั้งอุปกรณ์รับน้ำต่าง ๆ เสร็จเรียบร้อยแล้ว โปรดแจ้ง สนท. เพื่อตรวจสอบการติดตั้งและดำเนินการเปิด - ปิดน้ำต่อไป

จึงเรียนมาเพื่อโปรดทราบ

ขอแสดงความนับถือ

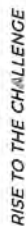
(นายอาจ พิชนศรี)

ผู้อำนวยการ สำนักงานนิคมอุตสาหกรรมบางปะหัน

สำเนาเรียน - บริษัท โกลบอล เพอิตี เซอร์วิส จำกัด

รายละเอียดค่าธรรมเนียมและเงินประกันการใช้

1. เงินประกันสัญญาการใช้น้ำประปา(ชั่วคราว)(มาตรา 3 นิ้ว)	15,000.00	บาท
2. เงินค่าธรรมเนียมการใช้		
- ค่าธรรมเนียมการติดตั้งมาตรวัดน้ำ 3 นิ้ว	1,000.00	บาท
- ค่าธรรมเนียมการนำมาตรลงสอบมาตรวัดน้ำ	400.00	บาท
- ค่าธรรมเนียมการติดตั้งบรรจบท่อเดิม 6 นิ้ว	2,740.00	บาท
รวมเป็นเงิน	19,140.00	บาท
ภาษีมูลค่าเพิ่ม 7 %	1,339.80	บาท
จำนวนเงินรวมภาษีมูลค่าเพิ่มทั้งสิ้น	20,479.80	บาท



หนังสือแจ้งขอให้นำพา

วันที่ 18 มีนาคม 2565

เรียน ผู้คำนวณการจ้างงาน นิคมอุตสาหกรรม มาบตาพุด จ.ระยอง

เรื่อง ขอความอนุเคราะห์ให้นำไป

เนื่องด้วย บริษัท ไทยรุ่งเรืองเงินทุน จำกัด เป็นบริษัทผู้รับมาโครงการก่อสร้างโรงไฟฟ้า นิโธร์ เอลฟ์พี 2 วิสาหกิจ (Glow SPP2 Replacement Project) ถนน 105 นิคมอุตสาหกรรมบางนาตาต จ.ระยอง เจ้าของโครงการโดย บริษัท นิโธร์ เอลฟ์พี 2 จำกัด โดยมีแผนงานดำเนินงานก่อสร้างตั้งแต่เดือน กุมภาพันธ์ 2022 - เดือน เมษายน 2024 มีความประสงค์ขอให้บริษัทฯ ปล่อยปึกแผ่นให้ในส่วนงานต่างๆ ภายใต้โครงการ โดยรับงบประมาณ 50 ล้านบาทแล้วแต่กรณี หรือ มากน้อยแล้วแต่ปริมาณงานของหน้างานที่ต้องใช้ในแต่ละวัน

ทางบริษัทฯ จึงหวังเป็นอย่างยิ่งว่า จะได้รับความเอื้อเฟื้อจากหน่วยงานของท่าน และขอขอบพระคุณมา ณ โอกาสนี้

จึงเรียนมาเพื่อโปรดพิจารณาและอนุมัติ

รองผู้จัดการ

โครงการก่อสร้างโรงไฟฟ้า โกลด์ เอสพีพี 2 รีเพลสมันท์

Thal Jutong Engineering Limited
 22 Sukhumvit 19, North Klongtoey, Wattana, Bangkok 10110 Thailand | +66-2280-5181-4 | www.tje.net

	แบบบันทึกการทบทวนข้อตกลงการบริการทดสอบ	พ. จำนวนบันทึกที่ส่งปฏิบัติการทดสอบ RRT No. : MTP 146/22
ก. ส่วนรับแจ้งการขอข้อมูล <input type="checkbox"/> ลูกค้ากรอกข้อมูลด้วยตัวเอง <input checked="" type="checkbox"/> ลูกค้าติดต่อทางโทรศัพท์ (ระบุผู้กรอกข้อมูล) <u>สุทิน กะชินรัมย์</u>		15) วันนัดรับผลการทดสอบ : ** วันส่งรายงานผล <u> </u> ด้วยวิธี <u> </u> ผู้รับ <u> </u>
1) ชื่อ / ที่อยู่ที่ใช้ในการออกใบรายงานผล : Thai Jurong Engineering Co., Ltd. 1-14 Road., Map Ta phut Industrial Estate, Map Ta Phut Subdistrict, Muang District, Rayong 21150		16) ประเภทลูกค้า : <input type="checkbox"/> ลูกค้าภายใน <input checked="" type="checkbox"/> ลูกค้าภายนอก
2) ชื่อ / ที่อยู่ที่ใช้ในการออกใบกำกับภาษี : ไทยจุร่ง เอ็นจิเนียริง จำกัด 75/43 อาคารไอเซี่ยนทาวเวอร์ 2 ชั้นที่ 22 ซอยสุขุมวิท 19 แขวงคลองเตยเหนือ เขตวัฒนา กรุงเทพฯ 10110		17) บริการอื่นที่เกี่ยวข้อง : <input type="checkbox"/> เชื้อเพลิงห้องปฏิบัติการทดสอบ ระบุวันที่ <u> </u> <input type="checkbox"/> บริการอื่นๆ <u> </u>
3) โทรศัพท์/ Tel: 02-2605181-4 โทรสาร/ Fax: 02-6616971		18) อ้างอิงในเอกสารฯ / สัญญาจ้าง / แผนงาน / PO เลขที่ : <u> </u> <input checked="" type="checkbox"/> ตามวิธีทดสอบของห้องปฏิบัติการ (LFP-0502)
4) ชื่อ-สกุลผู้ติดต่อ : <u> </u>		19) วิธีการทดสอบ : <input type="checkbox"/> ตามวิธีทดสอบของลูกค้า (ระบุใน LFP-0502 หรือ เอกสารแนบจำนวน..... หน้า)
5) ตำแหน่ง Position : <u> </u> มือถือ/ Mobile : <u> </u>		20) ห้องปฏิบัติการฯ ทบทวนข้อตกลงการบริการทดสอบ : <input checked="" type="checkbox"/> พร้อมรับงาน <input type="checkbox"/> ไม่พร้อมรับงาน
6) E-mail address : <u> </u>		ผู้ติดต่อ <u> </u> Senior Chemist: <u> </u> ลงชื่อ <u> </u> ลงชื่อ <u> </u> วันที่ <u>6/9/22</u> วันที่ <u>06/09/22</u>
7) วัตถุประสงค์ : <input type="checkbox"/> ส่งกรมโรงงานอุตสาหกรรม <input type="checkbox"/> ความคุ้มค่าปฏิบัติงาน <input checked="" type="checkbox"/> สินค้า (ระบุ) ตรวจสอบคุณภาพ <u> </u>		
8) เก็บตัวอย่างโดย : <input type="checkbox"/> ห้องปฏิบัติการทดสอบ <input checked="" type="checkbox"/> ลูกค้า		
9) วิธีการชำระเงิน : <input type="checkbox"/> เงินสด <input type="checkbox"/> เช็ค <input type="checkbox"/> เงินโอน <input type="checkbox"/> เครดิต <u> </u> วัน		
10) การจ้างเหมาช่วง : <input type="checkbox"/> ไม่มีการจ้างเหมาช่วง <input checked="" type="checkbox"/> มีการจ้างเหมาช่วง โดย <input checked="" type="checkbox"/> ห้องปฏิบัติการทดสอบคัดเลือก <input type="checkbox"/> ลูกค้าคัดเลือก (ระบุ) <u> </u>		
ใบรายงานผลการทดสอบ / Test Report		
11) ภาษาที่ต้องการ : <input type="checkbox"/> ไม่ระบุ <input checked="" type="checkbox"/> ภาษาอังกฤษทั้งหมด <input type="checkbox"/> แปลภาษาไทยทั้งหมด (คิดค่าธรรมเนียมฉบับละ 200 บาท)		<input type="checkbox"/> ยินยอมให้ห้องปฏิบัติการทดสอบ <input type="checkbox"/> ไม่ยินยอมให้ห้องปฏิบัติการทดสอบ
12) ส่งรายงานผล : <input type="checkbox"/> E-mail <input type="checkbox"/> FAX <input checked="" type="checkbox"/> มารับผลเอง <input type="checkbox"/> ส่งทางไปรษณีย์ ที่อยู่ตามใบกำกับภาษี <input type="checkbox"/> ส่งทางไปรษณีย์ ที่อยู่ตามใบรายงานผล		Senior Chemist <u> </u> ผู้ติดต่อ <u> </u> ลงชื่อ <u> </u> ลงชื่อ <u> </u> วันที่ <u> </u> วันที่ <u> </u>
13) เครื่องหมายการรับรองมาตรฐาน ISO/IEC 17025 : <input type="checkbox"/> ต้องการไม่แสดง <input type="checkbox"/> ไม่ต้องการไม่แสดง		ผู้จัดการด้านวิชาการลงชื่อรับทราบ กรณีที่มีการปฏิบัติการใดๆ ที่เปลี่ยนแปลงจากข้อตกลงในส่วน ก. และ ข. วันที่ <u> </u>
14) ข้อมูลเพิ่มเติม* : <input type="checkbox"/> LOD <input type="checkbox"/> LOQ <input type="checkbox"/> MDL <input type="checkbox"/> Uncertainty (คิดค่าธรรมเนียม) <input type="checkbox"/> ต้องการให้ห้องปฏิบัติการคัดสรรผลการทดสอบระดับความเชื่อมั่น.....% เพิ่มจากค่าบริการ <input checked="" type="checkbox"/> ค่ามาตรฐาน (ระบุ) <u> </u> ทดสอบ)		

LFP-0501-13/11-08-21



ค่าขอรับบริการตรวจวิเคราะห์

หน้า 13
SRT No. : MTP 146/22

ลำดับ	พารามิเตอร์	ปริมาณ ตัวอย่างที่ส่ง ในการวิเคราะห์	ภาชนะ ที่รับส่ง ¹⁾	วิธีการเก็บ ตัวอย่าง ²⁾	การเก็บรักษา ตัวอย่าง ³⁾	จำนวนสูงสุด ที่เก็บ รักษาตัวอย่าง ⁴⁾	วิธีทดสอบ ⁵⁾	ราคา (บาท)	จำนวน (ตัวอย่าง)	ราคาสุทธิ (บาท)
1	Acidity	100 mL	P, G(B), FP	g	Cool, ≤ 6 °C	24 h	Titration Method [SMWW, Part 2310 (B)]	150		
2	Alkalinity	200 mL	P, G, FP	g	Cool, ≤ 6 °C	24 h	Titration Method [SMWW, Part 2320 (B)]	150		
3	Biochemical Oxygen Demand (BOD 5 Day)	1,000 mL	P, G, FP	g, c	Cool, ≤ 6 °C	6 h	Anodic Modification Method [SMWW, Part 5210 B, 4500 - O (C)] Membrane Electrode Method [SMWW, Part 5210 B, 4500 - O (G)]	350		
4	Calcium	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	EDTA Titrimetric Method [SMWW, Part 3500 - Ca (B)]	100	1	350
5	Chloride	50 mL	P, G, FP	g, c	None required	N.S.	Argentometric Method [SMWW, Part 4500 - Cl (B)]	150		
6	Chlorine (Free)	500 mL	P, G	g	Analyze immediately	0.25 h	DPD Colorimetric Method [SMWW, Part 4500 - Cl (G)]	150		
							DPD Ferrous Titrimetric Method [SMWW, Part 4500 - Cl (F)]	150		
							Iodometric Method [SMWW, Part 4500 - Cl (B, C)]	150		
7	Chlorine (Residual)	500 mL	P, G	g	Analyze immediately	0.25 h	DPD Colorimetric Method [SMWW, Part 4500 - Cl (G)]	150		
							DPD Ferrous Titrimetric Method [SMWW, Part 4500 - Cl (F)]	150		
							Iodometric Method [SMWW, Part 4500 - Cl (B, C)]	150		
8	Chemical Oxygen Demand	100 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 1 Cool, ≤ 6 °C	7 d	Closed Reflux, Colorimetric Method [SMWW, Part 5220 (D)]	250		
9	Color	500 mL	P, G, FP	g, c	Cool, ≤ 6 °C	24 h	Visual Comparison Method [SMWW, Part 2120 (B)] Spectrophotometric Method [SMWW, Part 2120 (C)]	100	1	100
							ADMI Weight - Oxidation Spectrometric Method [SMWW, Part 2120 (F)]	100		
10	Conductivity						Laboratory Method [SMWW, Part 2510 (B)]	100		
11	Cyanide	1,000 mL	P, G, FP	g, c	add NaOH, pH > 12 Cool, ≤ 6 °C, in dark	24 h	Distillation, Colorimetric Method [SMWW, Part 4500 - CN (C, E)]	350	1	350
12	Dissolved Oxygen	300 mL	G, BOD bottle	g	Titration may be delayed after acidification	8 h	Anodic Modification Method [SMWW, Part 4500 - O (C)]	250		
					Analyze immediately	0.25 h	Membrane Electrode Method [SMWW, Part 4500 - O (G)]	350		
13	Fluoride	100 mL	F	g, c	None required	24 h	SPADNS Method [SMWW, Part 4500 - F (D)]	250	1	250
14	Formaldehyde	500 mL	G	g, c	Cool, ≤ 6 °C, in dark	24 h	Calorimetric Method (ASTM D 5703-96, 1998)	300		
15	Hardness	100 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2	6 months	EDTA Titrimetric Method [SMWW, Part 2540 (C)]	150		
16	Hardness (Carbonate)	100 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2	6 months	Calculation Method	150		
17	Hardness (Non-carbonate)	100 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2	6 months	Calculation Method	150		
18	Magnesium	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	Calculation Method [SMWW, Part 3500 - Mg (B)]	400	1	400
19	Nitrogen (Ammonia)	500 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	7 d	Distillation, Titrimetric Method [SMWW, Part 4500-NH ₃ (B, C)]	250		
20	Nitrogen (Nitrate)	100 mL	P, G, FP	g, c	Cool, ≤ 6 °C	48 h	Brucine Method Cadmium Reduction Method [SMWW, Part 4500-NO ₃ (E)]	350	1	350
21	Nitrogen (Nitrite)	100 mL	P, G, FP	g, c	Cool, ≤ 6 °C	none	Colorimetric Method [SMWW, Part 4500-NO ₂ (B)]	250		
22	Nitrogen (Total)	1,000 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	1 - 2 d	Persulfate Method [SMWW, Part 4500-N (C)]	250		
23	Total Kjeldahl Nitrogen	500 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	7 d	Macro-Kjeldahl Method [SMWW, Part 4500-N _{tot} (B)] Semi-Micro-Kjeldahl Method [SMWW, Part 4500-N _{tot} (C)]	250		
24	Oil & Grease	1,000 mL	G, wide-mouth calibrated	g	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	28 d	Liquid-Liquid, Partition - Gravimetric Method [SMWW, Part 5520 (B)] Soxhlet Extraction Method [SMWW, Part 5520 (D)]	300		
25	pH	50 mL	P, G	g	Analyze immediately	0.25 h	Electrometric Method [SMWW, Part 4500 - H ⁺ (B)]	100	1	100
26	Phenol	500 mL	P, G, PTFE-line cap	g, c	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	analyze as soon	Chloroform Extraction Method [SMWW, Part 5530 (C)] Direct Photometric Method [SMWW, Part 5520 (D)]	450	1	450
27	Phosphate	100 mL	G (A)	g	Cool, ≤ 6 °C	48 h	Ascorbic Acid Method [SMWW, Part 4500-P (E)]	300		
							Vanadomolybdophosphoric Acid Colorimetric Method [SMWW, Part 4500 (C)]	300		
28	Phosphorus	100 mL	P, G, FP	g, c	add H ₂ SO ₄ , pH < 2 Cool, ≤ 6 °C	38 d	Ascorbic Acid Method [SMWW, Part 4500-P (E)] Vanadomolybdophosphoric Acid Colorimetric Method [SMWW, Part 4500 (C)]	300		

LFP-0502-12/20-07-22

ลำดับ	พารามิเตอร์	ปริมาณ ตัวอย่างที่ส่งให้ ในการวิเคราะห์	ภาชนะ ที่จัดเก็บ "	วิธีการเก็บ ตัวอย่าง "	การเก็บรักษา ตัวอย่าง "	จำนวนสูงสุด ที่เก็บ รักษาตัวอย่าง "	วิธีทดสอบ "	ราคา (บาท)	จำนวน (ครั้ง/ค่า)	ราคาสุทธิ (บาท)
11	Iron (Fe)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	350	1	350
12	Lead (Pb)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
13	Manganese (Mn)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
14	Magnesium (Mg)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
15	Mercury (Hg)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
16	Nickel (Ni)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
17	Potassium (K)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
18	Sodium (Na)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
19	Silver (Ag)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
20	Sodium (Na)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400
21	Zinc (Zn)	1,000 mL	P(A), G(A), FP (A)	g, c	add HNO ₃ , pH < 2	6 months	ICP-MS Method (SMWW, Part 3125)	400	1	400

Note: 1) In-house Method LTW-011 : Based on Standard Method for the Examination of Water & Wastewater.
APHA, APHA, AWWA & WEF 23rd Edition (2017), Part 2540 D.
2) SMWW : Standard Method for the Examination of Water & Wastewater.
APHA, AWWA & WEF 23rd Edition (2017).
3) P = plastic (polyethylene or equivalent), G = glass, G(A) or P(A) = rinsed with HNO₃ (1+1) : G(S) or P(S) = Clean and sterile
4) g = grab, c = composite
5) Cool = storage at > 0 °C, < 6 °C (above freezing point of water); in the dark; analyze immediately = analyze usually within 15 min of sample collection.
6) N.S. = not stated in cited reference; stat = no storage allowed

รวม (บาท)	8,950.00
ส่วนลด (บาท)	-
ค่าเดินทาง (บาท)	-
ค่าดำเนินการ (บาท)	-
รวมเป็นเงิน (บาท)	8,950.00
ภาษีมูลค่าเพิ่ม 7% (บาท)	626.50
รวมเป็นเงินสุทธิ (บาท)	9,576.50
จำนวนเงิน	
ลูกค้าเซ็นชื่อ / รับทราบราคาตรวจวิเคราะห์	
ลงชื่อ	
ตำแหน่ง	
วันที่	8/1/22

LFP-0502-12/20-07-23

1, 1-1 Rd., Mapintaphu, Muang, Rayong 21150, Tel: 038-683848-9

ANALYSIS REPORT

 Pages : 1 / 2
 Report Date : 23/09/22
 Report No. : MTP 023272

Customer Name : Thai Mining Engineering Co., Ltd.
 Address : 1-1 Rd., Mapintaphu, Muang, Rayong 21150
 (Customer Information)
 Sample Type : Water supply
 Sampling Point : Office
 Sampling Method : Grab Sampling
 Sampling Date (Sampling Time) : 06/09/22 (09:05 AM)
 Sampling By : Thai Mining Engineering Co., Ltd.

Customer Information
 Laboratory Information
 Received Date : 06/09/22
 Analytical Date : 06-21/09/22
 Sample Code : MTP-CW-023272

Parameter	Unit	Analysis Method ⁽¹⁾	Standard Limit ⁽²⁾	Result
1 pH @ 25 °C	-	Electrometric Method (SMWW, Part 4500 - H+ (B))	6.5 - 8.5	7.1
2 Total Solids	mg/L	Dried at 105-105 °C (SMWW, Part 2540 (B))	-	174
3 Calcium	mg/L as CaCO ₃	EDTA Titrimetric Method (SMWW, Part 3500 - Ca (B))	-	22
4 Chloride	mg/L	Argentometric Method (SMWW, Part 4500 - Cl- (B))	≤ 250	38
5 Color	PCU	Spectrophotometric Method (SMWW, Part 2120 (C))	≤ 15	2.0
6 Cyanide	mg/L	Distillation, Colorimetric Method (SMWW, Part 4500 - CN- (C, E))	-	< 0.01
7 Fluoride	mg/L	SPADNS Method (SMWW, Part 4500 - F- (D))	≤ 0.7	< 0.10
8 Magnesium	mg/L	Calculation Method (SMWW, Part 3500 - Mg (B))	-	9
9 Nitrogen (Nitrate)	mg/L	Bremer Method	≤ 50	< 0.10
10 Phenol	mg/L	Direct Photometric Method (SMWW, Part 5550 (D))	-	< 0.10
11 Surfactants	mg/L	Anionic Surfactant as MBAS Method (SMWW, Part 5540 (C))	≤ 250	< 0.01
12 Sulfate	mg/L	Turbidimetric Method (SMWW, Part 4500 - SO ₄ (E))	≤ 250	22.2
13 Turbidity	NTU	Nephelometric Method (SMWW, Part 2120)	≤ 5	0.38
14 Iron (Fe) & Manganese (Mn)	mg/L	Calculation Method	-	0.194
15 Escherichia Coli	MPN/100 mL	Multiple-Tube Fermentation Technique Method (SMWW, Part 9221 (F))	Not Detected	Not Detected
16 Coliform	Colony count	Multiple-Tube Fermentation Technique Method (SMWW, Part 9221 (B))	≤ 1.1	< 1.1
17 Standard Plate Count	Colony count	Pour Plate Method	-	< 1
18 Arsenic (As)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.01	Not Detected
19 Barium (Ba)	mg/L	ICP Method (SMWW, Part 3120)	0.066	Not Detected
20 Cadmium (Cd)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.003	Not Detected
21 Chromium, Total (Cr)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.05	Not Detected
22 Copper (Cu)	mg/L	ICP Method (SMWW, Part 3120)	≤ 1	< 0.01
23 Iron (Fe)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.3	0.184
24 Lead (Pb)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.01	Not Detected
25 Manganese (Mn)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.3	0.010
26 Mercury (Hg)	mg/L	ICP Method (SMWW, Part 3120)	≤ 0.001	Not Detected
27 Selenium (Se)	mg/L	ICP Method (SMWW, Part 3120)	-	Not Detected
28 Zinc (Zn)	mg/L	ICP Method (SMWW, Part 3120)	≤ 3	0.047
Sample Description	Color	Visual method	-	No color
	Odor	Visual method	-	No odor
	Turbidity	Visual method	-	No Sediment

 - Reported analysis refers to submitted sample only.
 - Do not copy portion of this analysis report without official approval.

LFP-2401-16/01-09-22



1, 1-1 Rd., Maplapint, Muang, Rayong 21150. Tel: 038-683848-9

ANALYSIS REPORT

Pages : 2 / 2
Report Date : 23/09/22
Report No. : MTP-0232722

(Customer Information)
Customer Name : Thai Juong Engineering Co., Ltd.
Address : 1-3A Road., Map Lapint Industrial Estate, Map Ta Phut Subdistrict, Muang District, Rayong 21150
(Laboratory Information)
Sample Type : Water supply
Sampling Point : Office
Received Date : 06/09/22
Analytical Date : 06-21/09/22
Sample Code : MTP-CW-023522

☒ Customer Information ☐ Laboratory Information
Sampling Method : Grab Sampling
Sampling Date (Sampling Time) : 06/09/22 (09:05 AM)
Sampling By : Thai Juong Engineering Co., Ltd.

Remark :

- (1) Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF 23 rd edition 2017
- (2) Notification of Department of Health on Drinking Water Quality Criteria B.E. 2563
- Analysis No. 18 - 28 analyze by GUSCO Lenehshang laboratory

Ch

Chemist
23/09/22

Senior Chemist
23/09/22

- End of Report -

- Reported analysis refers to submitted sample only

- Do not copy partial of this analysis report without official approval

LFP-2401-16/01-09-22

ภาคผนวก ข-7

เอกสารแบบบันทึกการตรวจสอบการทำความสะอาด
ห้องน้ำ-ห้องส้วม



บริษัท ไทยจุร่ง เอ็นจิเนียริง จำกัด
Thai Jurong Engineering Limited

Glow SPP2 Replacement Project

Checklist to clean the toilet daily รายการตรวจสอบการทำความสะอาดห้องน้ำประจำวัน

Area/ บริเวณ : toilet worker (ห้องน้ำตงงาน)

Month/ เดือน : กุมภาพันธ์ ๒๕๖๕ (July ๒๐๒๑)

No. เลขที่	Particulars รายการ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks หมายเหตุ
1	Toilet floor clean. พื้นห้องน้ำ สะอาด	/	/	-	/	/	/	/	/	/	-	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
2	Toilet cleaner No stains โถสุขภัณฑ์สะอาด ไม่มีคราบสกปรก	/	/	-	/	/	/	/	/	/	-	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3	The toilet Odorless บริเวณห้องน้ำไม่มีกลิ่นเหม็น	/	/	-	/	/	/	/	/	/	-	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4	Injection line not damaged สายฉีดชำระไม่ชำรุด	/	/	-	/	/	/	/	/	/	-	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
5	No sanitary inspections for leaks. ตรวจสอบสุขภัณฑ์ไม่มีการรั่วซึม	/	/	-	/	/	/	/	/	/	-	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
ลงชื่อผู้ปฏิบัติงาน																																	
ลงชื่อผู้ตรวจสอบ																																	

Note : OK = (/), Not Applicable = (N/A), Not OK = (X)

หมายเหตุ : 1. ใส่เครื่องหมาย (/) ถ้าเห็นว่า ถูกต้อง. 2. ใส่เครื่องหมาย (N/A) ถ้าเห็นว่าไม่เกี่ยวข้องหรือไม่จำเป็น. 3. ใส่เครื่องหมาย (X) ถ้าเห็นว่าไม่ถูกต้อง.



บริษัท ไทยจุร่ง เอ็นจิเนียริง จำกัด
Thai Jurong Engineering Limited

Glow SPP2 Replacement Project

Checklist to clean the toilet daily รายการตรวจสอบการทำความสะอาดห้องน้ำประจำวัน

Area/ บริเวณ : toilet worker. (ห้องน้ำตงงาน)

Month/ เดือน : สิงหาคม ๒๕๖๕ (August ๒๐๒๑)

No. เลขที่	Particulars รายการ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks หมายเหตุ
1	Toilet floor clean. พื้นห้องน้ำ สะอาด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
2	Toilet cleaner No stains โถสุขภัณฑ์สะอาด ไม่มีคราบสกปรก	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3	The toilet Odorless บริเวณห้องน้ำไม่มีกลิ่นเหม็น	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4	Injection line not damaged สายฉีดชำระไม่ชำรุด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
5	No sanitary inspections for leaks. ตรวจสอบสุขภัณฑ์ไม่มีการรั่วซึม	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
ลงชื่อผู้ปฏิบัติงาน																																	
ลงชื่อผู้ตรวจสอบ																																	

Note : OK = (/), Not Applicable = (N/A), Not OK = (X)

หมายเหตุ : 1. ใส่เครื่องหมาย (/) ถ้าเห็นว่า ถูกต้อง. 2. ใส่เครื่องหมาย (N/A) ถ้าเห็นว่าไม่เกี่ยวข้องหรือไม่จำเป็น. 3. ใส่เครื่องหมาย (X) ถ้าเห็นว่าไม่ถูกต้อง.



Checklist to clean the toilet daily

รายการตรวจสอบการทำความสะอาดห้องน้ำประจำวัน

Area/ บริเวณ : พื้นที่น้ำอ้อมฟลัดในโรงรถ

เดือน : กุมภาพันธ์ ๒๕๖๕

No เลขที่	Particulars รายการ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks หมายเหตุ
1	Toilet floor clean. พื้นห้องน้ำ สะอาด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
2	Toilet cleaner No stains โถสุขภัณฑ์สะอาด ไม่มีคราบสกปรก	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3	The toilet Odorless บริเวณห้องน้ำไม่มีกลิ่นเหม็น	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4	Injection line not damaged สายฉีดชำระไม่ชำรุด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
5	No sanitary inspections for leaks. ตรวจสอบสุขภัณฑ์ไม่มีการรั่วซึม	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
ลงชื่อผู้ปฏิบัติงาน																																	
ลงชื่อผู้ตรวจสอบ																																	
Note: OK = 100% No = 0% Not = 50%																																	

Note : OK = (/), Not Applicable = (N/A), Not OK = (X)

หมายเหตุ: 1. ใส่เครื่องหมาย (/) ถ้าเห็นว่า ถูกต้อง, 2. ใส่เครื่องหมาย (N/A) ถ้าเห็นว่าไม่เกี่ยวข้องหรือไม่จำเป็น, 3. ใส่เครื่องหมาย (X) ถ้าเห็นว่าไม่ถูกต้อง.



Checklist to clean the toilet daily

รายการตรวจสอบการทำความสะอาดห้องน้ำประจำวัน

Area/ บริเวณ : Toilet water (ห้องน้ำคองกรี)

Month/ เดือน : ตุลาคม ๒๕๖๕ (October) ๒๐๒๒

No. เลขที่	Particulars รายการ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks หมายเหตุ
1	Toilet floor clean. พื้นห้องน้ำ สะอาด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
2	Toilet cleaner No stains โถสุขภัณฑ์สะอาด ไม่มีคราบสกปรก	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3	The toilet Odorless บริเวณห้องน้ำไม่มีกลิ่นเหม็น	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4	Injection line not damaged สายฉีดชำระไม่ชำรุด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
5	No sanitary inspections for leaks. ตรวจสอบสุขภัณฑ์ไม่มีการรั่วซึม	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
ลงชื่อผู้ปฏิบัติงาน																																	
ลงชื่อผู้ตรวจสอบ																																	

Note : OK = (/), Not Applicable = (N/A), Not OK = (X)

หมายเหตุ: 1. ใส่เครื่องหมาย (/) ถ้าเห็นว่า ถูกต้อง, 2. ใส่เครื่องหมาย (N/A) ถ้าเห็นว่าไม่เกี่ยวข้องหรือไม่จำเป็น, 3. ใส่เครื่องหมาย (X) ถ้าเห็นว่าไม่ถูกต้อง



บริษัท ไทยจุร่ง เอ็นจิเนียริ่ง จำกัด
Thai Jurong Engineering Limited

Glow SPP2 Replacement Project

Checklist to clean the toilet daily

รายการตรวจสอบการทำความสะอาดห้องน้ำประจำวัน

Area/ บริเวณ : Toilet worker (ห้องน้ำคนงาน)

Month/ เดือน : พฤศจิกายน ๒๕๖๕ (November ๒๐๒๒)

No. เลขที่	Particulars รายการ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Remarks หมายเหตุ
1	Toilet floor clean พื้นห้องน้ำ สะอาด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
2	Toilet cleaner No stains โถสุขภัณฑ์สะอาด ไม่มีคราบสกปรก	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3	The toilet Odorless บริเวณห้องน้ำไม่มีกลิ่นเหม็น	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4	Injection line not damaged สายฉีดชำระไม่ชำรุด	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
5	No sanitary inspections for leaks ตรวจสอบสุขภัณฑ์ไม่มีการรั่วซึม	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
ลงชื่อผู้ปฏิบัติงาน																																	
ลงชื่อผู้ตรวจสอบ																																	

Note : OK = (/), Not Applicable = (N/A), Not OK = (X)

หมายเหตุ : 1. ใช้เครื่องหมาย (/) ถ้าเห็นว่ามีเครื่องหมาย (N/A) ถ้าเห็นว่าไม่เกี่ยวข้องหรือไม่จำเป็น, 3. ใช้เครื่องหมาย (X) ถ้าเห็นว่าไม่ถูกต้อง.

ภาคผนวก ข-8

แบบบันทึกการตรวจสอบสภาพเครื่องยนต์ที่ใช้ในกิจกรรมก่อสร้าง



THAI JURONG ENGINEERING LIMITED
Glow SPP 2 Replacement Cogeneration Plant Project

Equipment Register

Company Name : TJEL

Monthly : DECEMBER

No. ที่	Equipment Name รายการ	QTY จำนวน	Remark / Expiry Date หมายเหตุ
1	Crane Zoomlion 55 Tons - QY 55V	1	15-01-2023
2	Crawler Crane 250 tons	1	09-01-2023
3	Truck loader crane (Haib Crane)	1	09-03-2023
4	Confine space Gas meter (Gas Alert Max XTII)	1	25-08-2023
5	Noise Meter	1	15-12-2023
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Prepared by:

Date : 07/DECEMBER 2022.

Verified by:

Date : 7/12/2022



THAI JURONG ENGINEERING LIMITED
Glow SPP 2 Replacement Cogeneration Plant Project

Equipment Register

Company Name : DGN

Monthly : December

No. ที่	Equipment Name รายการ	QTY จำนวน	Remark / Expiry Date หมายเหตุ
1	Dump truck 6 wheel (70-2084)	1	30 / 06 / 2023
2	Dump truck 6 wheel (70-2283)	1	31 / 03 / 2023
3	Back hoe PC 200 (PC 20/36)	1	19 / 07 / 2023
4	Back hoe PC 200 (PC 20/34)	1	17 / 02 / 2023
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Prepared by:

Date :

7 / 12 / 2022

Verified by:

Date :

7 / 12 / 2022