SSHE Induction

Waste Management

Bins

- **BLUE**: For Non Hazardous Materials
- **RED**: For Hazardous materials

LOCATION **:** QPS / PPS / WPS XX

การคัดแยกขวดน้ำดื่มและวิธีการทิ้งในที่จัดไว้ให้

Flammable solid Label

Non-hazardous waste Label

SSHE Induction

Waste Management

Battery Bins

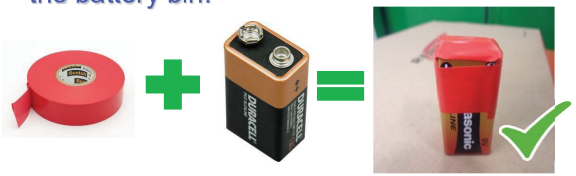
- **Orange** : For Battery wastes ***only***.

LOCATION **:** QPS Safety Store/

QPS In front of CCR / PPS Mezz Deck

Essential for 9 Volt Battery

- Must be use vinyl electrical tape wires to bundle the battery before dumping into the battery bin.

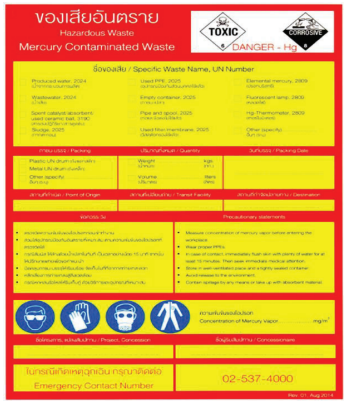


SSHE Induction

Waste Management

Essential rules

- The mercurial wastes must be contained according to types and nature of waste and contain in the HDPE 120Lt drum with LDPE plastic bag and air-tight sealed with rubber seal, clamp and top lid. Total weight of drum and content must not exceed 100 kg.



SSHE Induction

Waste Management

SSHE Induction

Waste Management

Mercury Waste Storage Area

PPS / Lower Deck – West Side

PPS / Lower Deck – North Side (Only Pig)

SSHE Induction

Housekeeping

To be maintain as a minimum

- Access routes to fire fighting or survival equipment and escape route **must** be always clear.

- Ladders access (platform or scaffold) shall be always clear.

Good housekeeping is essential on GBS Platforms.

SSHE Induction

Housekeeping

To be maintain as a minimum

- Do not run the electrical cables or utility hoses along walkways. They should be covered by ramps, tied to handrails or run above head height.

- Oil, chemical or lubricant spills must be cleaned up immediately.
  - Tools & equipment including lifting equipment must be put back in the designated stores when the job is complete.
- Every work area must be cleaned up daily before the end of a shift.

Good housekeeping is essential on GBS Platforms.

SSHE Induction

Acoustic gas detector

SSHE Induction

Open path gas detector

Do not obstructed open path gas detector. Especially scaffolding structure

SSHE Induction

Scaffolding

All scaffolding shall comply with the following

- All scaffolding material shall comply to BS EN standard
- Only competent scaffolders are authorized to erect, dismantle or modify scaffold/ platform structure.
- All Scaffold users should inspect the scaffold before and during use.
- All scaffolds shall be inspected on regular basis by a qualified scaffold inspector and tagged to reflect its status.

Green - SAFE TO USE
Red - DO NOT USE

SSHE Induction

Working at Height

No work at height shall be undertaken without :

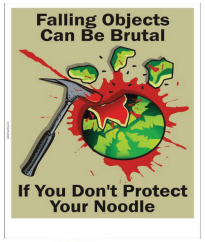
- A fixed platform/scaffolding with handrails, with a tagging system covering worker access and inspections,
- Only competent person able to design and construct a mobile platform. Full body harness with a proper anchor, shock absorber inboard and inertia reel over board (all work at heights must be assessed, 2 m rule not applied).
- Ladders must be footed or tied off.
- Protect & highlight open holes and fall edges.
- Place your material, cables and hoses clear to avoid t and fall hazards.
- Never walk on structural beams unsecured.
- Adequate lighting when working at day or night.
- Report fall hazards in your work area.

SSHE Induction

Dropped Objects

To avoid dropped objects

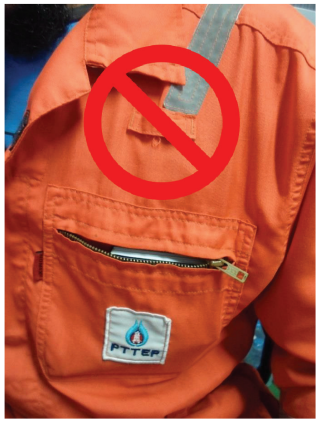
- Scaffold plank shall be adjoined closely.
- Tools need to be equipped with lanyards.
- Equipment and materials need to be fasten correctly.
- No lifting above critical equipment.(gas line, transformer, etc)
- Regular housekeeping on your work area.
- Check load before lifting.
- Barricade the lifting area.(on board mandatory)
- Install netting where necessary.
- Protect critical equipment. (i.e. scaffold shelter)
- Never lift over personnel. (Mandatory)
- All equipment must be certified.
- All Riggers must be qualified.



SSHE Induction

Dropped Objects

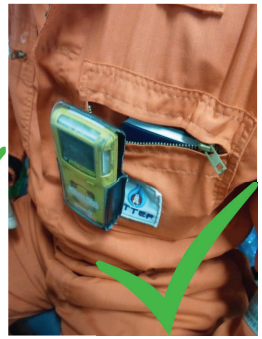
How to carry Gas Detector/Radio



SSHE Induction

Dropped Objects

How to carry Gas Detector/Radio



SSHE Induction

Line of Fire

To avoid Line of Fire

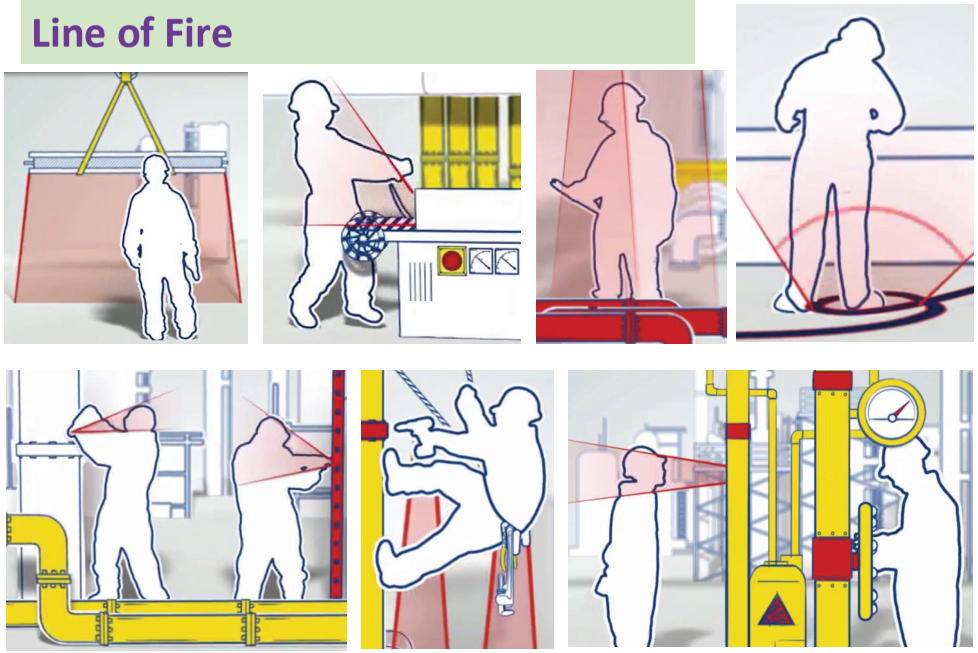
- You knows what you do.
- Looking Hazard before working.
- If something go wrong ask yourself or stop work first.
- Lifting operation.
- Machine moving part.
- Pressure, Temperature, Flow and Liquid.
- Drop object.

SSHE Induction

Line of Fire

SSHE Induction

Line of Fire



SSHE Induction

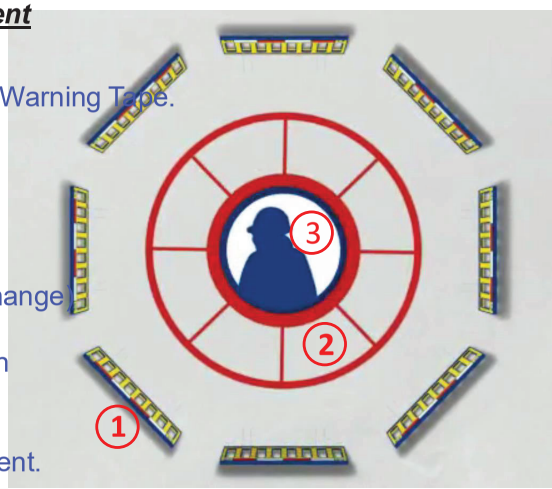
Line of Fire

Tool to avoid Line of Fire event

Hardware Barrier
- Warning Sign, Barricade, Warning Tape.

Follow up
- The procedure.
- Work instruction.
- JSA(Job Safety Analysis)
- MOC(Management Of Change)

Human Barrier communication
- Toolbox Talk.
- Pre job meeting.
- Last minute risk assessment.

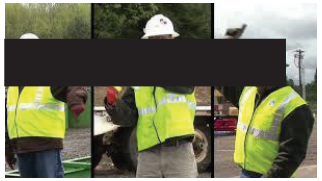


SSHE Induction

Lifting & Rigging

Lifting Rules

- Only qualified personnel be involved in rigging & slinging activities.
- PTW shall be applied, personnel shall alert while crane is in lifting operations.
- Lifting plan & JSA / OHSE-RA to be clarified and applied to all concerned personnel for every critical lifting
- All critical lift area shall be barricaded and restricted to entry. Warning sign to be posted.



SSHE Induction

Lifting & Rigging

Lifting Rules

- Do not allow people or critical asset, live process under suspending loads.
- Assess environmental conditions i .e. wind speed < 20 knots.
- All Spreader Bar, Lifting Clamp, Lifting Chain, Hook, wire rope & web sling shall be inspected and certified by third party, color coded every twelve (12) months.
- All containers, skids, baskets, etc. must be complied to marine standard .

SSHE Induction

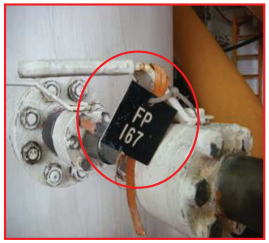
Lifting & Rigging

LIFTING EQUIPMENT COLOR CODING ARE NOW

SSHE Induction

Confined Space

1. Respect Permit To Work and Lock Out Tag Out (LOTO) procedure.
2. Process and Mechanical Isolation required for entry to vessels & tanks.
3. Training is required for entering in Confined Space.
4. All atmosphere test shall be done and registered, personal gas detectors shall be used as specified in the PTW.
5. A trained hole watcher shall stay outside in contact with workers at all times
6. Entry register shall be maintained.
7. Risk assessment shall be completed.
8. Emergency plan & equipment is prepared.



SSHE Induction

Confined Space

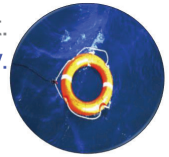
Blood pressure tested before start work.

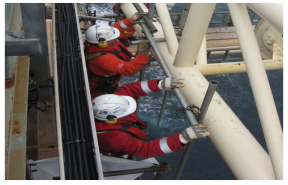
SSHE Induction

Working Over Water

Work over water are allowed only if

1. JSA or OHSE-RA approved and PTW signed
2. Wearing Full body harness, inertia reels and work/life vest.
3. Never work alone over water – safety watcher standing by.
4. Life buoys and boat stand by in place.
5. Rescue plan approved, rescue team in alert.

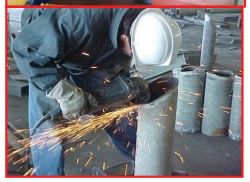




SSHE Induction

Hot Work – Naked Flame

1. "Hot work - Naked flame" means welding, cutting, grinding, or anything that produces sparks, flames, heat, or smoke.....
2. A PTW must be issued and gas check is required.
3. A JSA or OHSE-RA is required.
4. A tool box meeting to be held. Emergency Response actions, fire prevention controls roles and responsibilities shall be discussed and confirmed.
5. A competent fire watcher shall be appointed before hot work commences and shall inspect after works have been completed.



SSHE Induction

Electrical Hazards

1. Ensure adequately mobile plant such as welding machines are grounded.
2. Electrical panels shall be locked inline with LOTO procedures.
3. All cables and plugs shall be in good condition.
4. Unplug electrical tools when not in use & store
5. NEVER MODIFY/ REPAIR Electrical tools/ equipment.
6. Protect from water, environmental & Mechanical damage No twisted cable connections are permitted on the project.
7. Residual Circuit Trip devices must be used (trickle trip) or Earth Leakage Circuit Breaker. (ELCB)
8. Ensure Good Housekeeping

Call a technician if fault found. Tel. 7923

SSHE Induction

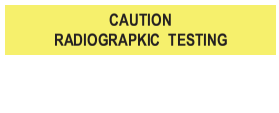
Electrical Hazards

Call a technician if fault found. Tel. 7923

SSHE Induction

Radiography Testing (RT)

1. Do not cross the barrier / Signs: controlled area.
2. Flashing light and horn to be used and notifications made.
3. Plan/schedule has to be communicated to all and approved by Company Man.
4. Transportation and storage of sources has to comply with fully with regulations.



SSHE Induction

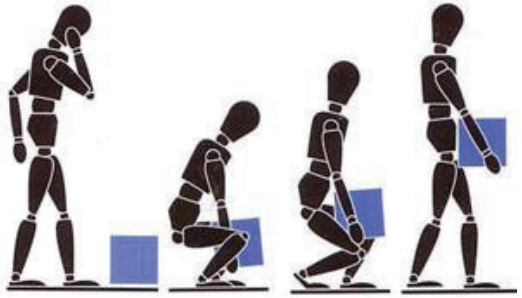
Dangerous Substances

1. Ensure a safe and separate storage. (compatibility)
2. Consult the SDS before use & display at work site.
3. Supervisor to fully advise team of the required safety controls.
4. Use adequate PPE.
5. Ensure sufficient ventilation. (natural or mechanical)
6. Do not transfer into “non approved” container
7. Ensure hazard labels are used.
8. ERP and equipment prepared for spillage & containment
9. PTW required.

SSHE Induction

Manual Handling

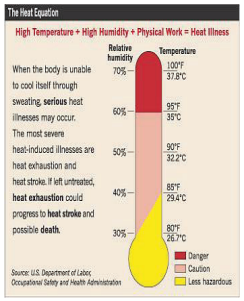
1. Don’t carry more than you can manage.
2. Protect your back, lift properly.
3. Adopt good lifting position.
4. Check the load before lifting it.



SSHE Induction

Heat Stroke

1. Take repeated break during work hours.
2. Drink water, small quantity and often.
3. Know the signs of heat stress.
4. Provide shading for workers.
5. Monitor each other for signs of heat stress.
6. If feel ill report to the medic.

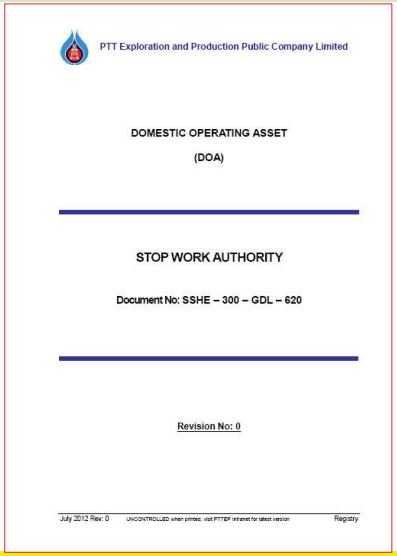


SSHE Induction

Reporting Anomalies

STOP WORK CRITERIA

- Conditions exist that pose a danger to the health and safety of worker, contractor, or the public.
- Conditions exist that if allowed to continue could adversely affect the safe operation of or could cause serious damage to the facility or asset.
- Conditions exist that if allowed to continue could result in the release from the facility to the environment of radiological, hydrocarbon, toxic gas or chemical effluents, etc that exceed applicable regulatory requirements or approvals.



PTT Exploration and Production Public Company Limited

DOMESTIC OPERATING ASSET

(DOA)

STOP WORK AUTHORITY

Document No: SSHE – 300 – GDL – 620

Revision No: 0

July 2012 Rev: 0 UNCONTROLLED when printed, visit PTTEP Intranet for latest version Registry

You are a key element, if you see it you own it! Don’t’ Walk by

คุณเป็นส่วนหนึ่งในความปลอดภัย ถ้าพบเห็นสิ่งผิดปกติ อย่าเดินผ่านไป

SSHE Induction

Reporting Anomalies

Everybody on GBS has to intervene when witnesses an unsafe act and condition.
Report all of them by using the SOC card.

Safety observation and communication

- Decide
- Stop
- Observe
- Act/Discuss
- Report
- Feedback

Observer must plan to observe behavior of workers and communicate with person being observed when observing any **safe or unsafe acts.**

PTTEP Bongkot South Offshore Safety Observation and Communication

FOR WORK SITE ACTIVITIES

PART1: Observed Information

Observed by:
Company: Position:
Department: Email:
Date: Time:
Location:
Work Activity:
Stop Yourself: ☐

Has The Observer Planned for this SSHE Observation? ☐ Yes ☐ No

Note: Observer *must plan* to observe behavior of workers and *communicate* with person being observed when observing any *safe or unsafe acts.*

PLEASE CHECK AND MARK (✓) IN BLOCKS

Reaction of People when He/She saw the observer	No	Yes	N/A
• Is He/She Adjusting Personal Protective Equipment Suddenly?	☐	☐	☐
• Is He/She Changing Position Suddenly?	☐	☐	☐
• Is He/She Rearranging Job Suddenly?	☐	☐	☐
• Is He/She Changing Tools Suddenly?	☐	☐	☐

Positions of People	Safe	At Risk	N/A
• Safe from Striking Against/Being Struck by Objects	☐	☐	☐
• Safe from Working in area of Potential to Fall	☐	☐	☐
• Safe from Electric Current	☐	☐	☐
• Safe from Hazardous Substance	☐	☐	☐
• Safe from Repetitive Motion/Awkward position	☐	☐	☐
• Safe from Working under load/Drop objects/Flying object	☐	☐	☐
• Safe from Hot/ Cold surface	☐	☐	☐

SSHE Induction

Reporting Anomalies

Tools and Equipment	Safe	At Risk	N/A
• Right for the Job	☐	☐	☐
• In Safe Condition with Inspected and Ready to Use	☐	☐	☐
• Use Correctly	☐	☐	☐
• Machine Safe Guard/Protection in Place	☐	☐	☐
Personal Protective Equipment	**Safe**	**At Risk**	**N/A**
• Head Protection (Helmet, Hard Hat)	☐	☐	☐
• Eyes and Face Protection (Goggles, Glasses etc.)	☐	☐	☐
• Hearing Protection (Ear Plugs, Ear Muffs)	☐	☐	☐
• Respiratory Protection (Mask, Filter, etc.)	☐	☐	☐
• Arm and Hands Protection (Gloves, etc.)	☐	☐	☐
• Fall Protection (Harness)	☐	☐	☐
• Clothing (Coverall)	☐	☐	☐
• Leg and Feet Protection (Safety Shoes, Boots)	☐	☐	☐
• Special PPE (Work vest, Life Vest, Apron, etc.)	☐	☐	☐
Working Area and Housekeeping Arrangement	**Safe**	**At Risk**	**N/A**
• Adequate Barricade and Safety Signs	☐	☐	☐
• No obstruction object at entrance, Exit and Emergency equipment	☐	☐	☐
• Keep area Tidy and clean to prevent Slip, Trip and Fall	☐	☐	☐
• Working in insufficient Light and Ventilation	☐	☐	☐
• Correct Waste/Chemical storage and handling	☐	☐	☐
Procedures	**Yes**	**No**	**N/A**
• Know and understand the Procedure of the Job?	☐	☐	☐
• Procedure is Adequate?	☐	☐	☐
• Follow the Procedure Correctly?	☐	☐	☐
• Comply with Permits?	☐	☐	☐
• Comply with Lock out/Tag out?	☐	☐	☐

Others	Safe	At Risk	N/A
• Others Identify	☐	☐	☐
• Others Identify	☐	☐	☐

SAFETY OBSERVATION AND COMMUNICATION (SOC)

PLAN - STOP AND OBSERVE - DISCUSS / ACT (Commitment) - REPORT

Safe Commendations:	
Unsafe Acts Observed:	
Reasons of Unsafe Acts / Unsafe Condition (After Discussion):	
Corrective Action Taken:	

You are a key element, if you see it you own it! Don't' Walk by

คุณเป็นส่วนหนึ่งในความปลอดภัย ถ้าพบเห็นสิ่งผิดปกติ อย่าเดินผ่านไป!

SSHE Induction

Reporting Anomalies

Everybody on GBS has to intervene when witnesses an unsafe act and condition.
Report all of them by using the SOC or HRC.

For found risk and hazard

- Fill and tick the items and event on HRC form.
- If you cannot resolve and make an improvement involve Line supervisor or SSHE Team.
- Return the completed card to the SSHE Team via Line supervisor.

PTTEP Greater Bongkot South
Hazard Report Card
PTTEP Report Number(No./Year/Site) :

รายงานเหตุแห่งอันตรายเพื่อการส่งเสริมให้เกิดการลดเหตุอันตรายที่เป็นและสภาวการณ์ที่ไม่ปลอดภัย - HRC No.

วันที่พบเห็นความเสี่ยง / Date of Hazard : เวลา / Time :
วันที่รายงาน / Date of Report :
สถานที่และจุดที่เกิดเหตุความเสี่ยง / Location and area :

รายละเอียดของสิ่งที่เห็นและเกิดว่าอันตราย / What did you see? Risk or Hazard

สาเหตุที่เกิดเป็น / Cause(s) of the Risk/Hazard (What is happening)

ผลที่เกิดจากเหตุเป็น / Consequent of the Risk/Hazard (What is might be happening)

วิธีการหรือมาตราการที่ได้กระทำไปในเบื้องต้นเพื่อป้องกันไม่ให้เหตุที่เหมาะเกิดขึ้น / Any Immediate action did to take to prevent incident?

ความคิดเห็นหรือข้อเสนอแนะเพื่อดำเนินการแก้ไขของผู้รายงาน / Recommend actions by reporter

ชื่อผู้รายงาน / Reporter : ตำแหน่ง / Position :
แผนก / Department : บริษัท / Company :

ข้อเสนอแนะเพิ่มเติมในการป้องกันความเสี่ยง หรือเห็นควรสำหรับหัวหน้างาน หรือเจ้าหน้าที่ความปลอดภัย / Supervisor or Safety recommendation
1) :

ประเมินความเสี่ยงที่อาจเกิดขึ้น / Risk Assessment คาดคะเนความรุนแรงที่อาจเกิดขึ้น / Potential severity

STOP Work : No LOPC : No

ข้อเสนอแนะเพิ่มเติมที่ดำเนินการแก้ไขโดยผู้จัดการหรือผู้แทน / Action assignment by Site Manager

รายการที่ต้องดำเนินการแก้ไข / Action identified	วันที่ต้องดำเนินการ / Action by	Target Date

ชื่อผู้จัดการ / Manager : ตำแหน่ง / Position :
วันที่ / Date : เวลา / Time :

You are a key element, if you see it you own it! Don't' Walk by

คุณเป็นส่วนหนึ่งในความปลอดภัย ถ้าพบเห็นสิ่งผิดปกติ อย่าเดินผ่านไป!

House Rule

Time

Working Time :

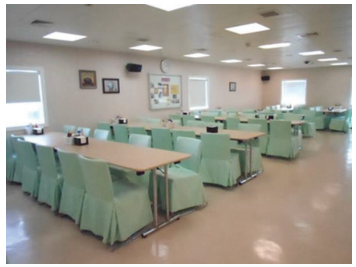
- Day Shift : 07:00 – 19:00 hrs.
- Night shift: 19:00 – 07:00 hrs.

Break Time :

- Day Shift : 09:00 – 09:30 hrs.
  15:00 – 15:30 hrs.
- Night Shift : 21:00 – 21:30 hrs.
  03:00 – 03:30 hrs.

Lunch :

- Day Shift : 11:30 – 12:30 hrs. (For Operator)
  12:00 – 13.00 hrs.
- Night Shift: 24:00 – 01:00 hrs.

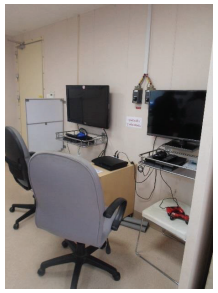


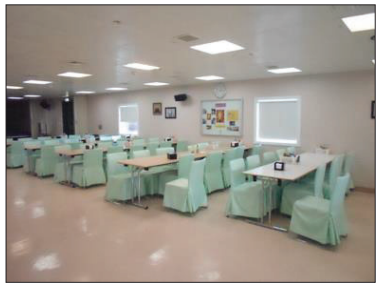
Canteen Location :

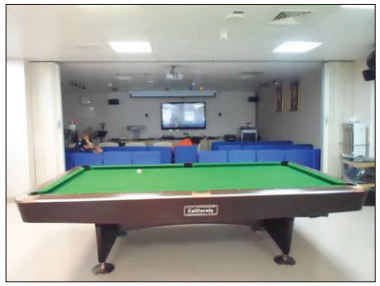
- QPS : 1st deck at QPS

House Rule

Coverall is not allowed.







Recreation Room
Dining Room
Video Room

House Rule

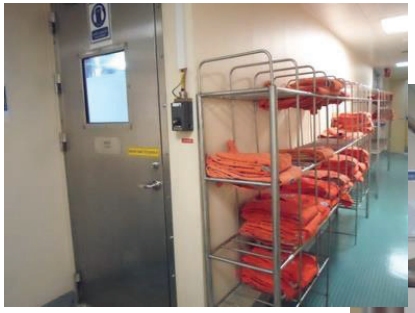
Washing

Sending Time :

- Day Shift : 19:00 – 22:00 hrs.
- Night shift: 07:00 – 10:00 hrs.

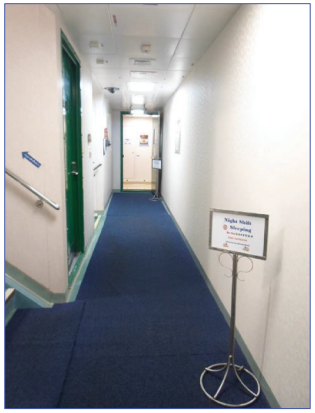
Location :

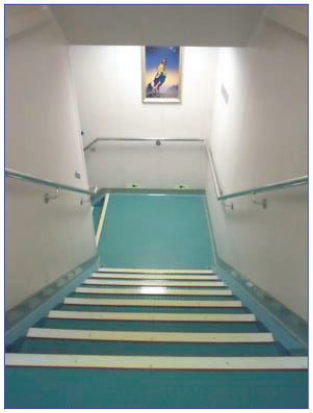
- QPS : Mezzanine Deck



House Rule

Do not run and slowly walk.



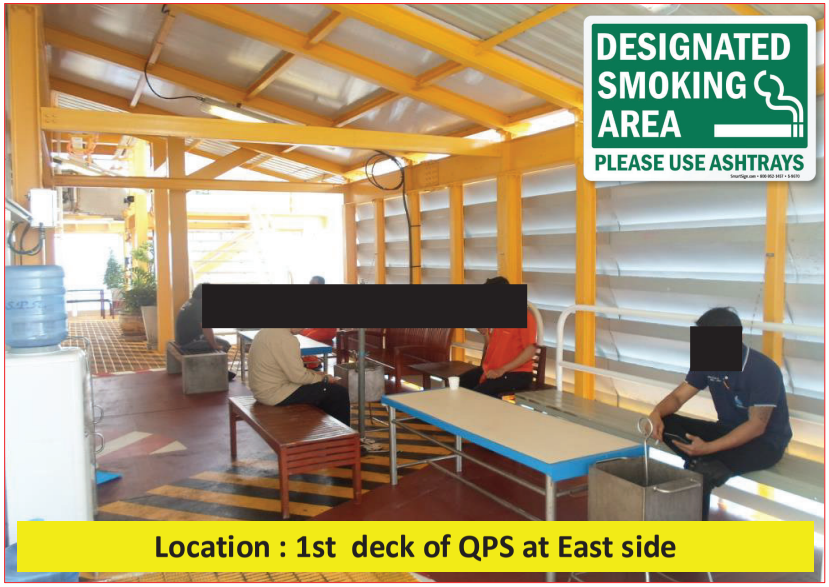


Night Shift
Sleeping
Do not disturb.

ขึ้น-ลงกรุณาเดินชิดขวา
Please keep right

House Rule

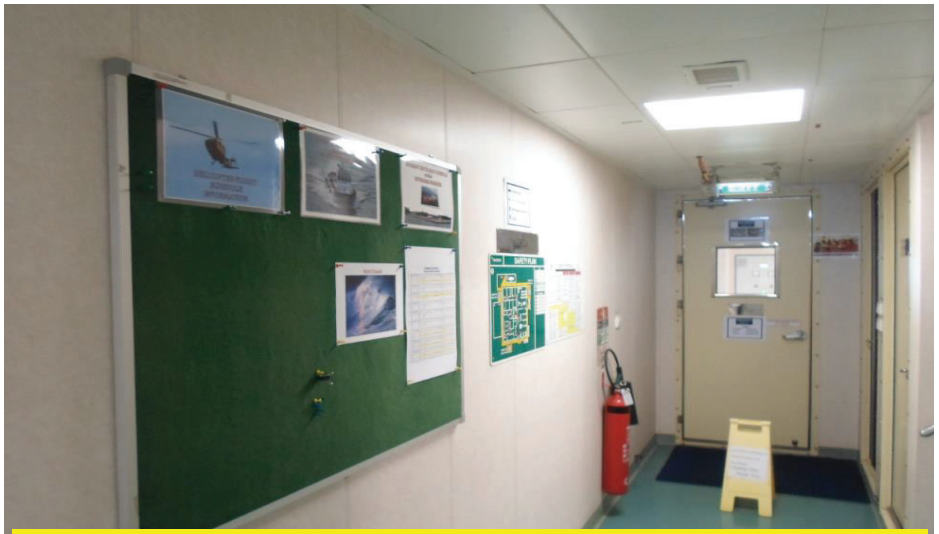
Smoking Area



Location : 1st deck of QPS at East side

House Rule

Transportation Information



Notice Board : 1st deck of QPS in front of Mess Room

House Rule

- Alcoholic Beverages
- Prohibited Drugs
- Explosives
- Weapons / Firearms

These are forbidden aboard helicopter, crew boats, accommodation vessel, barges & platform facilities.

- Violators will not be allowed to enter any PTTEP work site and corresponding company's disciplinary action will be taken upon detection of any such articles.
- การฝ่าฝืนนำสิ่งของต้องห้ามจะไม่อนุญาตไม่ให้เข้าไปในพื้นที่ทำงานของบริษัทปตท.สผ. และถือเป็นความผิดทางวินัย

House Rule

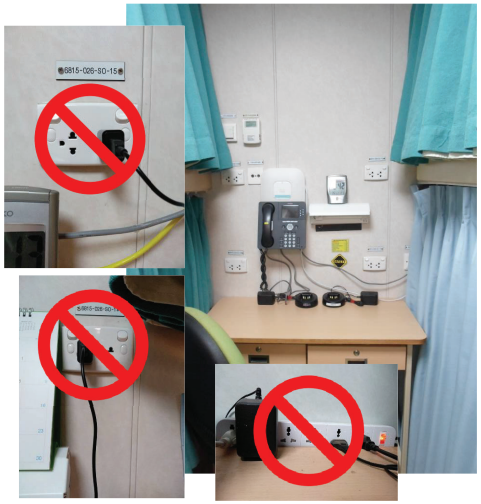
Prohibited items on board

In addition, certain rules have to be respected Offshore

- Smoking is only permitted in designated areas
  (no lighter or matches allowed)
- Medicines shall be medically prescribed by a Doctor
- Alcohol is strictly prohibited
- Gambling and fishing is prohibited

House Rule

Bed Room



Keep your asset in a locker.
(Phone, Laptop)

Don't charge electronic device while not stay in room.

House Rule

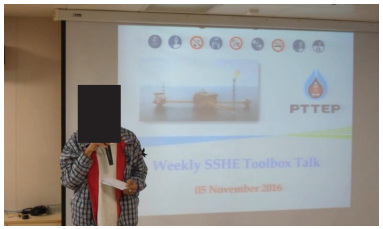
Bed Room

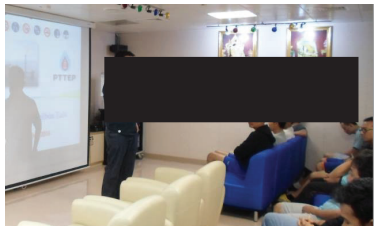
Food, fruits, coffee, yogurt and milk are not allowed to bring in your bed room.

SSHE Induction

SSHE Toolbox Talk

SSHE Weekly Toolbox Talk every Saturday at Recreation Room : Time 07.00 AM.





Safety Toolbox Talk every Thursday for Contractor and Monday for OTF/W at Muster point 1 & 2 : Time 07.00 AM.

PTTEP

PTT Exploration and Production Public Company Limited

Chemical Management Procedure

Document Code: 12148-PDR-SSHE-505/38-R00

November 2019

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SAFETY DATA SHEET
KI-3962

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: KI-3962

APPLICATION: Corrosion inhibitor

SUPPLIER:
M-I SWACO
Koppholen 23
4313 Sandnes
NORWAY
Tel.: +47 51 57 73 00
Fax.: +47 51 57 73 98
SDS@miswaco.com

CONTACT PERSON: Ingrid Helland, telephone: +47 51 57 74 24

EMERGENCY TELEPHONE: (24 Hour) Europe +44 (0) 1235 239 670, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Middle East and Africa +44 (0) 1235 239 671.

2 HAZARDS IDENTIFICATION

Toxic by inhalation, in contact with skin and if swallowed.

Irritating to eyes and skin.

CLASSIFICATION (1999/45) T;R23/24/25. Xi;R36/38.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification (67/548)
2-BUTOXYETHANOL	203-905-0	111-76-2	5-10%	Xn;R20/21/22 Xi;R36/38
THIOGLYCOLIC ACID	200-677-4	68-11-1	5-10%	T;R23/24/25 C;R34

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

The data shown is in accordance with the latest EC Directives.

4 FIRST-AID MEASURES

INHALATION

Provide rest, warmth and fresh air. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions. Place unconscious person on the side in the recovery position and ensure breathing For breathing difficulties oxygen may be necessary.

INGESTION

DO NOT INDUCE VOMITING! Immediately rinse mouth and provide fresh air. Immediately give a couple of glasses of water or milk, provided the victim is fully conscious. Do not give victim anything to drink if he is unconscious. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Contact physician if discomfort continues.

SKIN CONTACT

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns must be treated by a physician.

EYE CONTACT

Important! Immediately rinse with water for 15-30 minutes. May cause permanent damage if eye is not immediately irrigated. Make sure to remove any contact lenses from the eyes before rinsing.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, foam, dry powder or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES

Containers close to fire should be removed immediately or cooled with water. Keep run-off water out of sewers and water sources. Dike for water control.

SPECIFIC HAZARDS

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO2). Sulphur dioxide.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Avoid inhalation of vapours and aerosol spray. Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS

Do not allow ANY environmental contamination. Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

SPILL CLEAN UP METHODS

Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid inhalation of vapours and spray mists. Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry and cool place. Avoid contact with oxidising agents.

STORAGE CLASS

Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
2-BUTOXYETHANOL	WEL	25 ppm		50 ppm		Sk
THIOGLYCOLIC ACID	WEL	1 ppm	3.8 mg/m3			

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through skin.

PROTECTIVE EQUIPMENT

ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

Suitable respiratory protection must be used at high concentrations. Use respiratory equipment with combination filter, type A2/P3. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact. Butyl rubber. Neoprene. Viton rubber (fluor rubber). Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

EYE PROTECTION

Wear tight-fitting goggles or face shield.

OTHER PROTECTION

Provide eyewash station and safety shower. Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid

COLOUR: Yellow

SOLUBILITY: Soluble in water.

PTTEP-14.13 ข้อมูลความปลอดภัยสารเคมี

MELTING POINT (°C)	< - 20 °C	RELATIVE DENSITY	1,07 ± 0,03 g/ml 20 °C
pH-VALUE, CONC. SOLUTION	3,7 - 5,7	VISCOSITY	2 - 5 cP @ 20 °C
FLASH POINT (°C)	> 80 °C CC (Closed cup).		

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

MATERIALS TO AVOID

Avoid contact with oxidising agents.

11 TOXICOLOGICAL INFORMATION

INHALATION

Toxic by inhalation. Gas or vapour in high concentrations may irritate respiratory system.

INGESTION

Toxic if swallowed. May cause severe internal injury.

SKIN CONTACT

Toxic in contact with skin. May be absorbed through the skin. Irritating to skin.

EYE CONTACT

Irritating to eyes.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

MOBILITY

The product is soluble in water.

BIOACCUMULATION

The product does not contain any substances expected to be bioaccumulating.

DEGRADABILITY

The product is moderately biodegradable. > 20% - < 60 % biodegradation

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

WASTE CLASS

The definitive European Waste code for this product will depend upon the final use that is made of this material. EWC-code: 07 01 04. Waste number: 7134. Organic acids.

14 TRANSPORT INFORMATION

UK ROAD CLASS	8		
PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S. (THIOGLYCOLIC ACID)		
UN NO. ROAD	1760	UK ROAD PACK GR.	III
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	III	TUNNEL RESTRICTION CODE	(E)
HAZARD No. (ADR)	80	HAZCHEM CODE	2X
CEFIC TEC(R) NO.	80GC9-II+III	RID CLASS NO.	8
RID PACK GROUP	III	UN NO. SEA	1760
IMDG CLASS	8	IMDG PACK GR.	III
EMS	F-A, S-B	UN NO. AIR	1760
AIR CLASS	8	AIR PACK GR.	III

15 REGULATORY INFORMATION

LABELLING

Toxic

CONTAINS THIOGLYCOLIC ACID

RISK PHRASES

R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.

SAFETY PHRASES

S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27	Take off immediately all contaminated clothing.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S60	This material and its container must be disposed of as hazardous waste.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

EU DIRECTIVES

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

INTERNATIONAL CHEMICAL INVENTORIES

European Union REACH - All components comply with REACH regulations. Contact REACH@miswaco.com if further information is required. Complies with the following national/regional chemical inventory requirements: EINECS / ELINCS.

16 OTHER INFORMATION

INFORMATION SOURCES

Product information provided by the commercial vendor(s). Material Safety Data Sheet, Misc. manufacturers. Micromedex. European Chemicals Bureau - ESIS (European Chemical Substances Information).

REVISION COMMENTS

This SDS have been made in a new database and therefore a new layout. There have been changes with regard to classification.

ISSUED BY

Ingrid Helland

REVISION DATE	30.03.2010
REV. NO./REPL. SDS GENERATED	1 / 18.05.2007

SAFETY DATA SHEET STATUS

Approved.

DATE	18.05.2007
SIGNATURE	Ingrid Helland
SIGNATURE 2	Bente K. Sandø

RISK PHRASES IN FULL

R34	Causes burns.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.

DISCLAIMER

MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We cannot make any assertions as to its reliability or completeness; therefore, user may rely only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to tl product or to the data herein is made or incurred hereunder.

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www.ntp.necsa.co.za

Actively enhancing life

NTP- MSD-000013
Rev: 0

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: Iridium Metal Source
Synonyms: Ir-192 (radioactive)

2. MATERIAL COMPOSITION

Hazardous Components: Radioactive Iridium-192
Type Of Radiation: β, γ

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW
Read the instructions for handling the active material. The radioactive material should be contained within its container or within shielding. Avoid unnecessary contact with the radioactive material in order to reduce the exposure and use safety equipment, when contact with the material is inevitable.

POTENIAL HEALTH EFFECTS

Inhalation: Can be caused by internal pollution.

Ingestion: Can cause asymptomatic physiological uptake by some target organs or tissues. Will cause irritation on mucous membranes and respiratory tracts.

Skin Contact: If in contact with the skin, it may cause irritation.

Eye Contact: The dust may cause mechanical irritation and burning to the eyes.

4. FIRST AID MEASURES

Inhalation: Notify the safety personnel. Leave the contaminated area and administer oxygen. If the exposure is high, seek medical attention.

Ingestion: Notify the safety personnel. Consume lots of water. If ingestion is high, seek medical help.

Skin Contact: Notify the safety personnel. Wash the infected area with water and soap and blot dry until the measured contamination reaches background levels.

Eye Exposure: Notify the safety personnel. Wash eye with copious amounts of water for 15 minutes until the measured contamination reaches background levels. If discomfort continues, seek medical help.

PROUDLY SOUTH AFRICAN

REG. 2002/021880/07

SABS

Directors LDS Thobejane (Chairman) DG Robertson (Managing Director) KF Fouche PA Louw VC Msutwana-Qupe PL vd Walt SM Jansen v Vuuren

5. FIRE-FIGHTING MEASURES

Iridium-192 is flammable and explosive when exposed to air at normal or slightly elevated temperatures.

Extinguishing Media: In the case of a fire do not use water, but smother with dry powder.

Special hazards: Use full protective clothing, breathing apparatus and full faced mask in the event of a fire. The equipment used as well as the persons extinguishing the fire should be monitored for radioactive contamination.

6. ACCIDENTAL RELEASE MEASURES

In the case of a leakage or a spill notify your safety personnel. Monitor for radioactive contamination and minimise contact with the material. If a spill occurs try to recover it for disposal and clean the contaminated surface with appropriate solvents. In cases were STANDARD OPERATING PROCEDURES are available, these should be consulted in the clean up process.

7. HANDLING AND STORAGE

The package should be appropriately shielded and handled minimally. Use spark-proof tools and explosion proof equipment when handling the source. Store the source away from heat, sparks, flames or any other source of ignition. The handling, storage and disposal of the radioactive material should be performed with compliance to local, federal or state government agency licence for the use of radioactive material.

8. PERSONAL EXPOSURE CONTROLS

When the packaging and interior of the container are in good condition, the risk of exposure is minimised.

Respiratory Protection: If dust particles are generated a respiratory mask should be worn.

Skin Protection: Plastic, latex or rubber gloves and lab coats are recommended.

Eye and Face Protection: Goggles, safety glasses or face shields should be worn to protect the face and eyes.

Other Protective Measures: Exposed skin should be washed several times and contaminated clothing should be laundered prior to use. There should be no smoking, eating or drinking in a radioactive area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Silver white solid

Odour: Odourless

Solubility: Insoluble in water

Boiling point: 4130°C

Melting Point: 2410°C

Half-Life: 74 days

10. STABILITY AND REACTIVITY

Stable under ordinary conditions and hazardous polymerisation will not occur. The source is considered to be unstable when expose to air, ignition sources, dust generation or excessive heat.

11. TOXICOLOGICAL INFORMATION

Exposure to large amounts of radiation can cause biological effects i.e. cancer, leukaemia, genetic and teratogenic effects. Acute exposure is not anticipated but the committed annual external whole body exposure is 50mSv. The annual limit of external skin exposure is 500mSv and the annual inhalation limit is 1E + 07 Bq.

12. ECOLOGICAL INFORMATION

No information found

13. DISPOSAL CONSIDERATION

Waste is to be disposed by a licensed waste disposal company. Follow local, federal and state government regulations for proper disposal of waste.

14. TRANSPORTATION INFORMATION

Shipping Name: Radioactive Material, Type A/B Package

Hazard Class: 7

Identification Number: UN 2915/ UN 2916/ UN 3333

15. REGULATORY INFORMATION (SOUTH AFRICA)

Hazardous Substances Act, Act 15 of 1973

Occupation Health and Safety Act and Regulations, Act 85 of 1993

16. OTHER INFORMATION

In Case of Emergency: Contact **Necsa EMERGENCY CENTRE**
Contact Number: +27 12 305 3333

THE ABOVE INFORMATION IS PROVIDED FOR NTP CUSTOMERS ONLY AND MAKES NO REPRESENTATION AS TO ITS COMPREHENSIVENESS OR ACCURACY. NTP WILL NOT BE RESPONSIBLE FOR ANY DAMAGES RESULTING FROM THE USE OF THIS DOCUMENT. CUSTOMERS DISCRETION SHOULD DETERMINE THE SUITABILITY OF THE INFORMATION.

PTTEP

PTT Exploration and Production Public Company Limited

Lifting Operation Safety Procedure

Document Code: 12148-PDR-SSHE-505/01-R01

April 2019

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PTTEP-14.14 ขั้นตอนความปลอดภัยในการยกและขนย้ายวัสดุ

PTTEP

PTT Exploration and Production Public Company Limited

SSHE Training and Competency Standard

Document Code: 11038-STD-SSHE-305-R06

May 2021

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ของพนักงานที่ปฏิบัติงาน

ภาคผนวก PTTEP-15

บันทึกปริมาณสารเคมีของโครงการฯ

PTTEP-15 บันทึกปริมาณสารเคมีของโครงการฯ

GREATER BONGKOT SOUTH FIELD CHEMICAL & HAZARDOUS SUBSTANCES INVENTORY

NO.	PRODUCT NAME	DEPT. INVENTORY		SDS		SDS One page	Maximun Quantity	Waste Disposal	LAST UPDATED	NAME	REMARKS
		DEPT.	LOCATION	Eng	Thai						
1	Therminol ® 66	PBS/P	PPS / UD	Yes			2,000 L.	Send to Onshore	29-Dec-22		
2	PTT Hydraulic 32	PBS/P	PPS / UD	Yes			1,000 L.	Send to Onshore	29-Dec-22		
	PTT Hydraulic 32	PBS/P	PPS / LD-SE	Yes			1,000 L.	Send to Onshore	29-Dec-22		
3	Biocide Biotreat TK-5400	PBS/P	PPS / LD-S	Yes			200 L.	Send to Onshore	29-Dec-22		
4	AC-1000 for Scale Control	PBS/P	PPS / LD-S	Yes			120 L.	Send to Onshore	29-Dec-22		
5	Desco 111 (HS)	PBS/P		Yes				Send to Onshore	29-Dec-22		Unused
6	Total Azolla ZS32	PBS/P		Yes				Send to Onshore	29-Dec-22		Unused
7	Oiler-1	PBS/P	PPS / LD-NE	Yes			2,000 L.	Send to Onshore	29-Dec-22		
	Oiler-1	PBS/P	PPS / UD	Yes			6,000 L.	Send to Onshore	29-Dec-22		
8	Corrosion Inhibitor (KI 3962)	PBS/P	PPS / UD	Yes			200 L.	Send to Onshore	29-Dec-22		
9	Fluid Film ® Gel Bew	PBS/P		Yes				Send to Onshore	29-Dec-22		Unused
10	Sodium Hypochlorite 10%	PBS/P	PPS / LD-S	Yes	Yes		80 L.	Send to Onshore	29-Dec-22		
11	FM 200	PBS/FS	PPS / LD-SE	Yes				Send to Onshore	29-Dec-22		
12	Ansulite 3% AFFF (AFC-3-A)	PBS/FS	PPS / LD-NE	Yes				Send to Onshore	29-Dec-22		
13	Soft Care Lotionized Hand Soap (สบู่เหลวล้างมือ)	PBS/FL (Cat)	QPS / 1st	Yes			30 L.	Send to Onshore	29-Dec-22		
14	SUNLIGHT Liquid Dish (Lemon) (น้ำยาล้างจานซันไลต์)	PBS/FL (Cat)		Yes				Send to Onshore	29-Dec-22		Unused
15	Lux Beauty Shower Cream (ครีมอาบน้ำ)	PBS/FL (Cat)	QPS / 1st	Yes			30 L.	Send to Onshore	29-Dec-22		
16	Pro Industrail (ผงซักฟอกโปร)	PBS/FL (Cat)	QPS / 1st		Yes		75 Kg.	Send to Onshore	29-Dec-22		
17	Wide Haiter Color (น้ำยาไฮเดอร์)	PBS/FL (Cat)	QPS / 1st	Yes			15 L.	Send to Onshore	29-Dec-22		
18	Kitchen Magiclean (น้ำยาเมจิคลีน_ห้องครัว)	PBS/FL (Cat)	QPS / 1st	Yes			3 L.	Send to Onshore	29-Dec-22		
19	Magiclean Power (น้ำยาเมจิคลีน_ห้องน้ำ)	PBS/FL (Cat)	QPS / 1st	Yes			3 L.	Send to Onshore	29-Dec-22		
20	Floor Magiclean (น้ำยาเมจิคลีน_ถูพื้น)	PBS/FL (Cat)	QPS / 1st	Yes			3 L.	Send to Onshore	29-Dec-22		
21	Complete Floor Finish (น้ำยาเคลือบเงาพื้น)	PBS/FL (Cat)	QPS / 1st	Yes			20 L.	Send to Onshore	29-Dec-22		
22	3M™ Floor Stripper (น้ำยาลอกแว็ค)	PBS/FL (Cat)	QPS / 1st	Yes			20 L.	Send to Onshore	29-Dec-22		
23	Suma Grill Gell (น้ำยาขจัดคราบมัน,คราบไหม้)	PBS/FL (Cat)	QPS / 1st	Yes			7 L.	Send to Onshore	29-Dec-22		
24	Dettol Liquid (Classic) (น้ำยาฆ่าเชื้อเดทตอล)	PBS/FL (Cat)	QPS / 1st	Yes			2 L.	Send to Onshore	29-Dec-22		
25	Blattanex® Cockroach Gel (เจลกำจัดแมลงสาป)	PBS/FL (Cat)		Yes				Send to Onshore	29-Dec-22		Unused
26	Glade® Automatic Spray (สเปรย์อัตโนมัติ)	PBS/FL (Cat)		Yes				Send to Onshore	29-Dec-22		Unused
27	Winpo Deodorant Cubes (ก้อนดับกลิ่น วินโป)	PBS/FL (Cat)			Yes			Send to Onshore	29-Dec-22		Unused
28	Air Wick Aerosol (สเปรย์ปรับอากาศ กลิ่นส้ม)	PBS/FL (Cat)	QPS / 1st	Yes			6 Can	Send to Onshore	29-Dec-22		
29	PP Green Natre Kleen (น้ำยาถูพื้น กรีนโปรดักส์)	PBS/FL (Cat)	QPS / 1st		Yes		4 L.	Send to Onshore	29-Dec-22		
30	Athena Gel (เจลกำจัดแมลง_อาธีน่า)	PBS/FL (Cat)			Yes			Send to Onshore	29-Dec-22		Unused
31	Comfort Regular Fabric Conditioner Pure (น้ำยาปรับผ้านุ่ม คอมฟอร์ท)	PBS/FL (Cat)	QPS / 1st	Yes			40 L.	Send to Onshore	29-Dec-22		
32	Lux Soap (สบู่ลักซ์ ก้อนสีชมพู)	PBS/FL (Cat)	QPS / 1st	Yes			100 EA.	Send to Onshore	29-Dec-22		
33	PP Green Bathroom Kleen (น้ำยาล้างห้องน้ำ กรีนโปรดักส์)	PBS/FL (Cat)			Yes			Send to Onshore	29-Dec-22		Unused
34	St. Andrews Fruit & Vegetable Wash (น้ำยาล้างผัก + ผลไม้)	PBS/FL (Cat)	QPS / 1st	Yes			3 L.	Send to Onshore	29-Dec-22		
35	SulfaVer ® 4 Sulfate Reagent	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
36	TitraVer ® Solution (Sodium EDTA)	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
37	Buffer Solution Hardness 1 pH 10.1	PBS/P (Lab)	PPS / MD	Yes			500 ml.	Send to Onshore	29-Dec-22		
38	ManVer ® 2 Hardness Indicator	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
39	Sulfuric Acid 1.600N	PBS/P (Lab)	PPS / MD	Yes			52 ml.	Send to Onshore	29-Dec-22		
40	Bromcresol Green-Methyl Red Indicator Powder	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
41	Loctite 495	PBS/P (Lab)	PPS / MD	Yes			50 CC.	Send to Onshore	29-Dec-22		
42	Toluene	PBS/P (Lab)	PPS / MD	Yes			10,000 ml	Send to Onshore	29-Dec-22		
43	Sodium Chloride Standard Solution	PBS/P (Lab)	PPS / MD	Yes			10 g.	Send to Onshore	29-Dec-22		
44	DPD Free Chlorine Reagent	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
45	FerroVer ® Iron Reagent	PBS/P (Lab)	PPS / MD	Yes			10 g.	Send to Onshore	29-Dec-22		pillow (ผง)
46	Acetone GR for analysis EMSURE ACS, ISO, Read. Ph Eur.	PBS/P (Lab)	PPS / MD	Yes			10,000 ml	Send to Onshore	29-Dec-22		
47	N-Heptane	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
48	n-Propanol	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
49	N-Hexane	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
50	Potassium Chromate	PBS/P (Lab)	PPS / MD	Yes			1,000 g	Send to Onshore	29-Dec-22		pillow (ผง)
51	pH-indicator strips	PBS/P (Lab)	PPS / MD	Yes			10,000 ml	Send to Onshore	29-Dec-22		
52	Chloroform	PBS/P (Lab)	PPS / MD	Yes			10,000 ml	Send to Onshore	29-Dec-22		
53	n-Pentane 99+%	PBS/P (Lab)	PPS / MD	Yes			5,000 ml	Send to Onshore	29-Dec-22		
54	Methanol	PBS/P (Lab)	PPS / MD	Yes			500 g	Send to Onshore	29-Dec-22		
55	Silver Nitrate	PBS/P (Lab)	PPS / MD	Yes			500 g	Send to Onshore	29-Dec-22		pillow (ผง)
56	Methyl Orange	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
57	Phenolphthalein Indicator	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
58	Diphenylcarbazone Reagent	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
59	Mercuric Nitrate 0.2256N	PBS/P (Lab)	PPS / MD	Yes			52 ml.	Send to Onshore	29-Dec-22		
60	Starch Indicator Solution	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
61	Sulfate 100 ppm Standard Solution	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
62	Iron AA Standard	PBS/P (Lab)	PPS / MD	Yes			500 ml.	Send to Onshore	29-Dec-22		
63	Buffer Solution pH 4	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
64	Buffer Solution pH 7	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
65	Mercury Standard	PBS/P (Lab)	PPS / MD	Yes			100 ml.	Send to Onshore	29-Dec-22		
66	Potassium Hydroxide	PBS/P (Lab)	PPS / MD	Yes			1,000 g	Send to Onshore	29-Dec-22		pillow (ผง)
67	Hydrochloric Acid	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
68	Nitric Acid 70%	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
69	Dissolved Oxygen	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
70	BARTO Tester, Sulfate-Reducing Bacteria	PBS/P (Lab)	PPS / MD	Yes			200 g	Send to Onshore	29-Dec-22		pillow (ผง)
71	CHEMets@Ampules for Fliming Amine	PBS/P (Lab)	PPS / MD	Yes			200 ml	Send to Onshore	29-Dec-22		
72	CombiCoulomat Frit Karl Fischer Reagent	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
73	Digestion Solution for COD	PBS/P (Lab)	PPS / MD	Yes			500 CC.	Send to Onshore	29-Dec-22		
74	Electrolyte KCl	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
75	White Mineral Oil (Blank Oil)	PBS/P (Lab)		Yes				Send to Onshore	29-Dec-22		Unused
76	L-Cysteine	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
77	Xylene	PBS/P (Lab)	PPS / MD	Yes			20,000 ml	Send to Onshore	29-Dec-22		
78	Palladium	PBS/P (Lab)		Yes			100 ml.	Send to Onshore	29-Dec-22		Unused
79	Magnesium Ribbon	PBS/P (Lab)	PPS / MD	Yes			5,000 ml	Send to Onshore	29-Dec-22		
80	Arsenic	PBS/P (Lab)	PPS / MD	Yes			100 ml.	Send to Onshore	29-Dec-22		

81	H2S Dragger Tube	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
82	Silicone Grease	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
83	Molecular Sieves	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
84	Sodium Chloride GR	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
85	Sodium Hydroxide	PBS/P (Lab)	PPS / MD	Yes			5,000 ml	Send to Onshore	29-Dec-22		
86	Buffer Solution	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22		
87	Jet A-1	PBS/FL	PPS / UD	Yes			7,500 L.	Send to Onshore	29-Dec-22		
88	Suma Calc D5 (ซูม่า แคลค์ D5)	PBS/FL (Cat)	QPS / 1st	Yes			7 L.	Send to Onshore	29-Dec-22		
89	Suma Quik Dri (ซูม่า ควิกดราย)	PBS/FL (Cat)	QPS / 1st		Yes		7 L.	Send to Onshore	29-Dec-22		
90	Glass Cleaner (น้ำยาเช็ดกระจก)	PBS/FL (Cat)	QPS / 1st		Yes		2 L.	Send to Onshore	29-Dec-22		
91	Belzona 111 (SUPER METAL) Base	PBS/FN	PPS / ESDV	Yes			45 Kg.	Send to Onshore	29-Dec-22		
92	Belzona 111 (SUPER METAL) Solidifier	PBS/FN	PPS / ESDV	Yes			45 Kg.	Send to Onshore	29-Dec-22		
93	WT-102 Flame Retardant Coating	PBS/FN	PPS / ESDV	Yes			30 L.	Send to Onshore	29-Dec-22		
94	International GTA220	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
95	International GTA713	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
96	International GTA822	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
97	International Thinner GTA007	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
98	International GTA803	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
99	Interzone 954 Part A	PBS/FN	PPS / ESDV	Yes			15 L.	Send to Onshore	29-Dec-22		
100	Interzone 954 Part B	PBS/FN	PPS / ESDV	Yes			15 L.	Send to Onshore	29-Dec-22		
101	International Paint Interseal 670 HS GREY Part A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
102	International Paint Interseal 670 HS GREY Part B	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
103	Belzona 1391 Base	PBS/FN	PPS / ESDV	Yes			20 Kg.	Send to Onshore	29-Dec-22		
104	Belzona 1391 Solidifier	PBS/FN	PPS / ESDV	Yes			20 Kg.	Send to Onshore	29-Dec-22		
105	Interthane 990 Base Light Part A	PBS/FN	PPS / ESDV	Yes			15 Kg.	Send to Onshore	29-Dec-22		
106	Interthane 990 Part B	PBS/FN	PPS / ESDV	Yes			10 Kg.	Send to Onshore	29-Dec-22		
107	Weber Color Poxy	PBS/FN	PPS / ESDV	Yes			22 L.	Send to Onshore	29-Dec-22		
108	Molykote 100 Paste	PBS/FN	PPS / ESDV	Yes			35 Kg.	Send to Onshore	29-Dec-22		
109	Intertherm 50 Aluminium	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
110	Interzinc 22 GREEN GREY Part A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
111	Intertherm 228 Part A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
112	Intertherm 228 Part B	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
113	Intertherm 875 A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
114	Hardtop AS Comp. A (Jotun)	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
115	Hardtop AS/HB - Comp. B (Jotun)	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
116	Amerlock 2/400 White Resin	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
117	Amerlock 2 Cure	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
118	Amercoat 880 Glassflake Additive	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
119	TOA Aerosol Spray (Lacquer Acrylic)	PBS/FN	PPS / ESDV	Yes			4.5 L.	Send to Onshore	29-Dec-22		
120	Tankguard 412 Comp A (Jotun)	PBS/FN	PPS / ESDV		Yes		60 L.	Send to Onshore	29-Dec-22		
121	Tankguard 412 Comp. B (Jotun)	PBS/FN	PPS / ESDV		Yes		25 L.	Send to Onshore	29-Dec-22		
122	Foster 30-45 Foamseal	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
123	Foster 60-25	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
124	Supershield Duraclean Oxygen Plus	PBS/FN	PPS / ESDV	Yes			5 L.	Send to Onshore	29-Dec-22		
125	International GMA129	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
126	Beger Thinner M-1199	PBS/FN	PPS / ESDV		Yes		10 L.	Send to Onshore	29-Dec-22		
127	Beger Wood Stain	PBS/FN	PPS / ESDV	Yes			16 L.	Send to Onshore	29-Dec-22		
128	Tri-Mor® Kaolite® 2200 HS	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
129	Cyproc Jointing Compound	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
130	GTA 123 International Thinner	PBS/FN		No				Send to Onshore	29-Dec-22		Unused
131	INTERGARD 475HS RAL 7030 Stone Grey Part A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
132	Interzinc 52 Grey Part A, B	PBS/FN		No				Send to Onshore	29-Dec-22		Unused
133	CHARTEX 7 Medium Grey Part A, B	PBS/FN	PPS / ESDV	Yes			70 L.	Send to Onshore	29-Dec-22		
134	Intergard® 269	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
135	SOLALITT	PBS/FN	PPS / ESDV	Yes			75 L.	Send to Onshore	29-Dec-22		
136	Interline 984 Part. A	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
137	Hardtop XP Comp A	PBS/FN	PPS / ESDV		Yes		450 L.	Send to Onshore	29-Dec-22		
138	Hardtop XP Comp B	PBS/FN	PPS / ESDV		Yes		450 L.	Send to Onshore	29-Dec-22		
139	Jotamastic 80 Comp A	PBS/FN	PPS / ESDV		Yes		150 L.	Send to Onshore	29-Dec-22		
140	Jotamastic 80 Comp B	PBS/FN	PPS / ESDV	Yes			150 L.	Send to Onshore	29-Dec-22		
141	JOTUN Thinner No.10	PBS/FN	PPS / ESDV		Yes		80 L.	Send to Onshore	29-Dec-22		
142	JOTUN Thinner No.17	PBS/FN	PPS / ESDV		Yes		100 L.	Send to Onshore	29-Dec-22		
143	Jotamastic 87 Comp A	PBS/FN	PPS / ESDV	Yes			300 L.	Send to Onshore	29-Dec-22		
144	Jotamastic 87 Standard Comp B	PBS/FN	PPS / ESDV	Yes			150 L.	Send to Onshore	29-Dec-22		
145	Fire Guard 180M	PBS/FN		Yes				Send to Onshore	29-Dec-22		Unused
146	Jotun Anti-Skid	PBS/FN	PPS / ESDV	Yes			30 Kg.	Send to Onshore	29-Dec-22		
147	Resist 86	PBS/FN	PPS / ESDV	Yes			120 L.	Send to Onshore	29-Dec-22		
148	Jotun Zinc 100 Comp B	PBS/FN	PPS / ESDV	Yes			80 Kg.	Send to Onshore	29-Dec-22		
149	Jotun Thinner No.4	PBS/FN	PPS / ESDV	Yes			60 L.	Send to Onshore	29-Dec-22		
150	Jotun Thinner No.25	PBS/FN	PPS / ESDV	Yes			100 L.	Send to Onshore	29-Dec-22		
151	Bycotest 103 Aerosol	PBS/FI		Yes				Send to Onshore	29-Dec-22		Unused
152	Bycotest 104 A	PBS/FI		Yes				Send to Onshore	29-Dec-22		Unused
153	Bycotest C10	PBS/FI		Yes				Send to Onshore	29-Dec-22		Unused
154	Bycotest D30A	PBS/FI		Yes				Send to Onshore	29-Dec-22		Unused
155	Spotcheck® Developer SKD-S2 (Magnaflux)	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
156	Magnaflux® White Contrast Paint WCP-2	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
157	ZINC IT	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
158	Spotcheck® SKC-S (Magnaflux)	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
159	Spotcheck® Penetrant SKL-SP2 (Magnaflux)	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
160	Magnaflux® Prepared Bath 7HF	PBS/FI	PPS / ESDV	Yes			24 Can	Send to Onshore	29-Dec-22		
161	Bycotest RP20	PBS/FI		Yes				Send to Onshore	29-Dec-22		Unused
162	Ultragel II®	PBS/FI	PPS / ESDV	Yes			5 L.	Send to Onshore	29-Dec-22		
163	TOA Glipton	PBS/FI	PPS / ESDV	Yes			1 L.	Send to Onshore	29-Dec-22		
164	Lectra Shield	PBS/FI	PPS / ESDV	Yes			12 Can	Send to Onshore	29-Dec-22		
165	Fluid Film ® Gel Bew	PBS/FI	PPS / ESDV	Yes			5 Can	Send to Onshore	29-Dec-22		
166	TOA High Gloss Enamel	PBS/FI	PPS / ESDV	Yes			12 Can	Send to Onshore	29-Dec-22		
167	WIN Aerosol Lacquer	PBS/FI	PPS / ESDV	Yes			12 Can	Send to Onshore	29-Dec-22		
168	PTT Turbin EP 32	PBS/MM	PPS / UD		Yes		3,000 L.	Send to Onshore	29-Dec-22		
169	Mobil Jet oil II	PBS/MM	PPS / UD	Yes			10 Box	Send to Onshore	29-Dec-22		

170	PTT Dynamic Plus (SAE 15W-40, MTU Type 2)	PBS/MM	PPS / LD-NE		Yes		200 L.	Send to Onshore	29-Dec-22		
	PTT Dynamic Plus (SAE 15W-40, MTU Type 2)	PBS/MM	PPS / LD-SE		Yes		200 L.	Send to Onshore	29-Dec-22		
	PTT Dynamic Plus (SAE 15W-40, MTU Type 2)	PBS/MM	PPS / UD		Yes		600 L.	Send to Onshore	29-Dec-22		
171	M8	PBS/P		Yes				Send to Onshore	29-Dec-22		Unused
172	PTT Hydraulic 68	PBS/MM	PPS / LD-SE	Yes			400 L.	Send to Onshore	29-Dec-22		
	PTT Hydraulic 68	PBS/MM	PPS / LD-NE	Yes			30 L.	Send to Onshore	29-Dec-22		
173	PTT Hydraulic 46	PBS/MM	PPS / LD-NE	Yes			150 L.	Send to Onshore	29-Dec-22		
	PTT Hydraulic 46	PBS/MM	PPS / LD-SE	Yes			400 L.	Send to Onshore	29-Dec-22		
174	PTT Hydraulic 32	PBS/MM	PPS / UD	Yes			1,000 L.	Send to Onshore	29-Dec-22		
175	PTT Gear Oil EP 150	PBS/MM	PPS / LD-SE	Yes			800 L.	Send to Onshore	29-Dec-22		
	PTT Gear Oil EP 150	PBS/MM	PPS / LD-NE	Yes			600 L.	Send to Onshore	29-Dec-22		
176	PTT Gear Oil EP 220	PBS/MM	PPS / LD-NE	Yes			150 L.	Send to Onshore	29-Dec-22		
177	PTT GL-5 (SAE 90)	PBS/MM	PPS / LD-NE		Yes		100 L.	Send to Onshore	29-Dec-22		
178	TOTAL Rubia TIR 7400 CI 15W40	PBS/MM	PPS / LD-SE	Yes			1,000 L.	Send to Onshore	29-Dec-22		
179	TOTAL Rubia TIR 6800 CI 15W40	PBS/MM		Yes				Send to Onshore	29-Dec-22		Unused
	TOTAL Rubia TIR 6800 15W40	PBS/MM		Yes				Send to Onshore	29-Dec-22		Unused
180	TOTAL Azolla ZS 68	PBS/MM	PPS / LD-NE	Yes			800 L.	Send to Onshore	29-Dec-22		
181	TOTAL Azolla ZS 32	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
	TOTAL Azolla ZS 32	PBS/MM	PPS / UD	Yes			50 L.	Send to Onshore	29-Dec-22		
182	TOTAL Azolla ZS 10	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
	TOTAL Azolla ZS 10	PBS/MM	PPS / UD	Yes			50 L.	Send to Onshore	29-Dec-22		
183	TOTAL Dacnis VS 32	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
184	TOTAL Preslia 46	PBS/MM	PPS / LD-SE	Yes			400 L.	Send to Onshore	29-Dec-22		
	TOTAL Preslia 46	PBS/MM	PPS / UD	Yes			800 L.	Send to Onshore	29-Dec-22		
185	TOTAL Carter SH 460	PBS/MM	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22		
	TOTAL Carter SH 460	PBS/MM	PPS / UD	Yes			400 L.	Send to Onshore	29-Dec-22		
186	TOTAL Carter SH 220	PBS/MM	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22		
187	TOTAL Carter EP 100	PBS/MM		Yes				Send to Onshore	29-Dec-22		Unused
188	TOTAL Carter SY 220	PBS/MM	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22		
189	TOTAL MTC 220	PBS/MM	PPS / LD-SE	Yes			400 L.	Send to Onshore	29-Dec-22		
190	TOTAL Equivis XV 32	PBS/MM	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22		
191	TOTAL Equivis ZS 46	PBS/MM	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22		
	TOTAL Equivis ZS 46	PBS/MM	PPS / UD	Yes			400 L.	Send to Onshore	29-Dec-22		
192	TOTAL Quartz 7000 10W40	PBS/MM	PPS / LD-NE	Yes			180 L.	Send to Onshore	29-Dec-22		
193	TOTAL ATF Dexron-III	PBS/MM	PPS / LD-NE	Yes			100 L.	Send to Onshore	29-Dec-22		
194	Shell Tellus Oil 32	PBS/MM	PPS / LD-SE	Yes			600 L.	Send to Onshore	29-Dec-22		
195	Shell Omala S2 G 100	PBS/MM	PPS / LD-NE	Yes			40 L.	Send to Onshore	29-Dec-22		
	Shell Omala S2 G 101	PBS/MM	PPS / UD	Yes			40 L.	Send to Onshore	29-Dec-22		
196	Shell Omala S2 G 220	PBS/MM	PPS / LD-NE		Yes		40 L.	Send to Onshore	29-Dec-22		
	Shell Omala S2 G 220	PBS/MM	PPS / UD		Yes		40 L.	Send to Onshore	29-Dec-22		
197	Shell Tellus S2 V32	PBS/MM	PPS / LD-SE	Yes			400 L.	Send to Onshore	29-Dec-22		
198	Shell Morlina S2 BL10	PBS/MM	PPS / LD-SE	Yes			1,200 L.	Send to Onshore	29-Dec-22		
199	Liebherr Gear Hypoid 90 EP	PBS/MM	PPS / UD	Yes			50 L.	Send to Onshore	29-Dec-22		
200	Liebherr Hydraulic 37	PBS/MM	PPS / UD	Yes			40 L.	Send to Onshore	29-Dec-22		
201	MOBIL SHC 625	PBS/MM	PPS / LD-NE	Yes			40 L.	Send to Onshore	29-Dec-22		
	MOBIL SHC 625	PBS/MM	PPS / UD	Yes			70 L.	Send to Onshore	29-Dec-22		
202	MOBIL SHC 626	PBS/MM	PPS / LD-NE	Yes			70 L.	Send to Onshore	29-Dec-22		
	MOBIL SHC 626	PBS/MM	PPS / UD	Yes			70 L.	Send to Onshore	29-Dec-22		
203	MOBIL SHC 630	PBS/MM	PPS / LD-NE	Yes			70 L.	Send to Onshore	29-Dec-22		
	MOBIL SHC 630	PBS/MM	PPS / UD	Yes			90 L.	Send to Onshore	29-Dec-22		
204	MOBIL DTE Oil Heavy	PBS/MM	PPS / LD-SE		Yes		600 L.	Send to Onshore	29-Dec-22		
205	Atlas Copco Roto Z	PBS/MM	PPS / LD-NE	Yes			270 L.	Send to Onshore	29-Dec-22		
206	Triethylene Glycol	PBS/MM	PPS / LD-SE	Yes			800 L.	Send to Onshore	29-Dec-22		
207	ZC-010	PBS/MM	PPS / UD	Yes			10 Can	Send to Onshore	29-Dec-22		
208	DOOSAN PRO-TEC Compressor Fluid	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
209	Enerpac hydraulic oil HF-105L	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
210	PTT LI-PLEX Grease NLGI No.2	PBS/MM	PPS / UD		Yes		50 L.	Send to Onshore	29-Dec-22		
	PTT LI-PLEX Grease NLGI No.2	PBS/MM	PPS / LD-NE		Yes		50 L.	Send to Onshore	29-Dec-22		
211	PTT EP Grease 2 (Multipurpose)	PBS/MM	PPS / LD-NE	Yes			70 L.	Send to Onshore	29-Dec-22		
	PTT EP Grease 2 (Multipurpose)	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
212	TOTAL Multis Complex EP 2	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
213	TOTAL Multis Complex EP 3	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
214	TOTAL Multis EP 2	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
215	TOTAL Ceran AD	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
	TOTAL Ceran AD	PBS/MM	PPS / LD-NE	Yes			30 L.	Send to Onshore	29-Dec-22		
216	Liebherr Universalfett 9900	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
217	Brilube 70, Lubricant for Wire Rope Dressing	PBS/MM	PPS / LD-NE	Yes			30 L.	Send to Onshore	29-Dec-22		
218	Mobil Mobilith SCH 220	PBS/MM	PPS / UD	Yes			50 L.	Send to Onshore	29-Dec-22		
219	Mobil Mobilith SHC 100	PBS/MM	PPS / LD-NE	Yes			50 L.	Send to Onshore	29-Dec-22		
220	Mobil Mobilarma 798	PBS/MM	PPS / LD-NE	Yes			30 L.	Send to Onshore	29-Dec-22		
221	FLUID FILM® GEL BEW	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
222	FLUID FILM® LIQUID AR	PBS/MM	PPS / UD	Yes			30 L.	Send to Onshore	29-Dec-22		
223	PTT Hikut 66	PBS/MM	PPS / LD-NE		Yes		30 L.	Send to Onshore	29-Dec-22		
224	PTT Hikut W 10	PBS/MM	PPS / LD-NE		Yes		30 L.	Send to Onshore	29-Dec-22		
225	Corrosion Inhibitor Coolant CS 100	PBS/MM	PPS / LD-NE	Yes			1,500 L.	Send to Onshore	29-Dec-22		
226	TOTAL Altis SH2	PBS/MM		Yes				Send to Onshore	29-Dec-22		Unused
227	AntiCorr PL001	PBS/MM		Yes				Send to Onshore	29-Dec-22		Unused
228	CAT Cooling System Cleaner	PBS/MM	PPS / LD-NE	Yes			30 L.	Send to Onshore	29-Dec-22		
229	Ansulex Low pH Liquid Fire Suppressant	PBS/FS	PPS / LD-NE	Yes				Send to Onshore	29-Dec-22		
230	Deionized Water	PBS/MM	PPS / UD	Yes			1,200 L.	Send to Onshore	29-Dec-22		
231	Propylene Glycol	PBS/MEI	PPS / LD-SE	Yes			200 L.	Send to Onshore	29-Dec-22		
232	Triethylene Glycol	PBS/MEI	PPS / LD-SE	Yes			200 L.	Send to Onshore	29-Dec-22		
233	Mobil Mobilith SHC 100	PBS/MEI	PPS / LD-NE	Yes			20 L.	Send to Onshore	29-Dec-22		
	Mobil Mobilith SHC 100	PBS/MEI	PPS / UD	Yes			20 L.	Send to Onshore	29-Dec-22		
234	Shell Gadus S2 V100 3	PBS/MEI	PPS / LD-NE	Yes			20 L.	Send to Onshore	29-Dec-22		
235	Mobil Mobilith SHC 220	PBS/MEI	PPS / UD	Yes			20 L.	Send to Onshore	29-Dec-22		
236	Distilled Water	PBS/MEI		Yes				Send to Onshore	29-Dec-22		Unused
237	EMKARATE RL 32H	PBS/MEI		Yes				Send to Onshore	29-Dec-22		Unused
238	Robinair Vacuum Oil	PBS/MEI		Yes				Send to Onshore	29-Dec-22		Unused

239	Totaline Synthetic Ester Refrigeration Oil (SW220)	PBS/MEI	PPS / LD-NE	Yes			150 L.	Send to Onshore	29-Dec-22	[redacted]	
240	Aqueous Film Forming Foam Concentrate (AFFF) 3%	PBS/FS		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
241	DeleCorr CS7 (New PTT Corrosion Inhibitor)	PBS/P	PPS / UD	Yes			2,000 L.	Send to Onshore	29-Dec-22	[redacted]	
242	EPT-3016	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
	EPT-3016	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	
243	Propylene Glycol 1,2	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
244	Permabond 910	PBS/MM	PPS / LD-NE	Yes			3 L.	Send to Onshore	29-Dec-22	[redacted]	
245	INTERGARD 475HS RAL 7030 Stone Grey Part B	PBS/FN		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
246	ZOK 27	PBS/MM	PPS / UD	Yes	Yes		180 L.	Send to Onshore	29-Dec-22	[redacted]	
247	TR OIL SERVICES BIOTREAT TK5400	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
248	NORUST TLC 115 (VCI)	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
249	KI-3195	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
250	EB-8385	PBS/P	PPS / UD	Yes			4,000 L.	Send to Onshore	29-Dec-22	[redacted]	
251	EXP-AP2018-03	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
252	CRW323 CORROSION INHIBITOR	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
253	PROSOLV CI8096	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
254	OILER-1	OTF/W	PPS / LD-NE	Yes			1,000 L.	Send to Onshore	29-Dec-22	[redacted]	
255	DYNAMIC PLUS (SAE 15W-40; API CH-4SL)	OTF/W	PPS / LD-NE	Yes			100 L.	Send to Onshore	29-Dec-22	[redacted]	
256	PTT Hydraulic 32,46, 68, 100	OTF/W	PPS / LD-NE	Yes			400 L.	Send to Onshore	29-Dec-22	[redacted]	
257	Lithium EP Grease	OTF/W	PPS / LD-NE		Yes		20 L.	Send to Onshore	29-Dec-22	[redacted]	
258	RUST REMOVER WD-40	OTF/W	PPS / LD	Yes			24 CAN	Send to Onshore	29-Dec-22	[redacted]	
259	Crown Safety Solvant 8060	OTF/W	PPS / LD	Yes			24 CAN	Send to Onshore	29-Dec-22	[redacted]	
260	GOJO® Lemon Pumice Hand Cleaner	OTF/W	PPS / LD	Yes			6 CAN	Send to Onshore	29-Dec-22	[redacted]	
261	CHEMPLEX 710	OTF/W	PPS / LD	Yes			6 CAN	Send to Onshore	29-Dec-22	[redacted]	
262	GLYCERIN	OTF/W	PPS / LD	Yes			2 CAN	Send to Onshore	29-Dec-22	[redacted]	
263	3D AVIATION FORM-A-GASKET #3 SEALANT 1PT	OTF/W	PPS / LD	Yes			200 CC.	Send to Onshore	29-Dec-22	[redacted]	
264	SUPER O-LUBE	OTF/W	PPS / LD	Yes			20 L.	Send to Onshore	29-Dec-22	[redacted]	
265	CORRTREAT 15483	PBS/P		Yes				Send to Onshore	29-Dec-22	[redacted]	Unused
266	VALVE LUBRICANT 601 WG	OTF/W	PPS / LD	Yes			20 L.	Send to Onshore	29-Dec-22	[redacted]	
267	Caterpillar Cat ELC (Extended Life Coolant) Premix 50/50	PBS/MM	PPS / UD	Yes			180 L.	Send to Onshore	29-Dec-22	[redacted]	
268	NALCO® 7330	PBS/MEI	PPS / LD-NE	Yes			20 L.	Send to Onshore	29-Dec-22	[redacted]	
269	Marvel Mystery Oil	PBS/MM	PPS / LD-NE	Yes			35 L.	Send to Onshore	29-Dec-22	[redacted]	
270	Liquid Wrench Penetrating Oil	PBS/MM	PPS / LD-NE	Yes			35 L.	Send to Onshore	29-Dec-22	[redacted]	
271	LION (น้ำยาล้างจานไลป้อน เอฟ)	PBS/FL (Cat)	QPS / 1st		Yes		40 L.	Send to Onshore	29-Dec-22	[redacted]	
272	TOA, Paint Remover	PBS/FL	PPS / ESDV		Yes		15 L.	Send to Onshore	29-Dec-22	[redacted]	
273	Jotun, Thinner No.7	PBS/FL	PPS / ESDV	Yes			30 L.	Send to Onshore	29-Dec-22	[redacted]	
274	TOA, Interior Polyurethane T-300	PBS/FL	PPS / ESDV		Yes		16 L.	Send to Onshore	29-Dec-22	[redacted]	
275	TURBO 357 Thinner AAA	PBS/FL	PPS / ESDV	Yes			16 L.	Send to Onshore	29-Dec-22	[redacted]	
276	Beger, Wood Filler	PBS/FL		No				Send to Onshore	29-Dec-22	[redacted]	Unused
277	Demulsifier EB-8313	PBS/P		No				Send to Onshore	29-Dec-22	[redacted]	Unused
278	Demulsifier EB-8418	PBS/P		No				Send to Onshore	29-Dec-22	[redacted]	Unused
279	Demulsifier EB-8884	PBS/P		No				Send to Onshore	29-Dec-22	[redacted]	Unused
280	Demulsifier EB-8769	PBS/P		No				Send to Onshore	29-Dec-22	[redacted]	Unused
281	Demulsifier EB-8336	PBS/P		No				Send to Onshore	29-Dec-22	[redacted]	Unused
282	Palladium Standard: 10000 ug/mL Pd 10 10% HNO3	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22	[redacted]	
283	Chlorine Calibration Set: 0-150 ug/g Cl in 75 cSt Mineral Oil	PBS/P (Lab)	PPS / MD	Yes				Send to Onshore	29-Dec-22	[redacted]	
284	Marathon XHB Comp A	PBS/FN	PPS / ESDV	Yes			40 L.	Send to Onshore	29-Dec-22	[redacted]	
285	Marathon XHB Comp B	PBS/FN	PPS / ESDV	Yes			20 L.	Send to Onshore	29-Dec-22	[redacted]	
286	Penguard Tie Coat 100 - Comp. A	PBS/FN	PPS / ESDV	Yes			78 L.	Send to Onshore	29-Dec-22	[redacted]	
287	Penguard Tie Coat 100 - Comp. B	PBS/FN	PPS / ESDV	Yes			20 L.	Send to Onshore	29-Dec-22	[redacted]	
288	Jotun Zinc 100 Comp B	PBS/FN	PPS / ESDV		Yes		30 L.	Send to Onshore	29-Dec-22	[redacted]	
289	Jotun Thinner No. 7	PBS/FN	PPS / ESDV		Yes		15 L.	Send to Onshore	29-Dec-22	[redacted]	
290	Solvalitt Alu	PBS/FN	PPS / ESDV		Yes		60 L.	Send to Onshore	29-Dec-22	[redacted]	
291	Resist 86 Comp A	PBS/FN	PPS / ESDV		Yes		32 L.	Send to Onshore	29-Dec-22	[redacted]	
292	Dow Corning	PBS/MEI	QPS / LD	Yes			150 g.	Send to Onshore	29-Dec-22	[redacted]	
293	HDAX 9200 Low Ash Gas Engine Oil SAE 40	PBS/MM	WPS-13		Yes		600 L.	Send to Onshore	29-Dec-22	[redacted]	Trial Product
294	Thinner 3A POWER COAT	PBS/FN	PPS / ESDV		Yes		200 L.	Send to Onshore	29-Dec-22	[redacted]	
295	Tankguard Storage Comp A	PBS/FN	PPS / ESDV	YES			18 L.	Send to Onshore	29-Dec-22	[redacted]	
296	Tankguard Storage Comp B	PBS/FN	PPS / ESDV	Yes			2 L.	Send to Onshore	29-Dec-22	[redacted]	

ภาคผนวก PTTEP-16

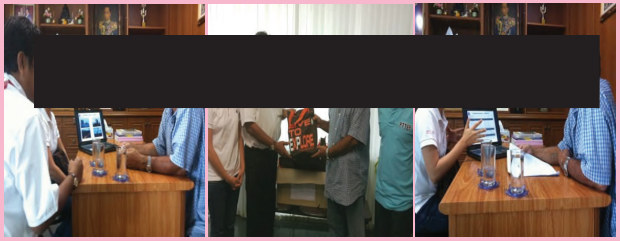
สรุปการประชุมชี้แจงข้อมูลโครงการบงกชใต้
ร่วมกับสมาคมประมงที่เกี่ยวข้อง

PTTEP MEMORANDUM **Ref:**

From: HCR/I สงขลา **Date:** 24 กุมภาพันธ์ 2554

To: ผู้ที่เกี่ยวข้อง **cc:**

Subject: สรุปผลการเข้าพบหารือตัวแทนสมาคมประมงจ.สงขลา



ทีมHCR/I กทม.และ HCR/I สงขลา ร่วมกับคุณ[redacted] เข้าสวัสดีปีใหม่และชี้แจงคุณไสว เจยาคม รองนายกสมาคมประมงจ.สงขลา ถึงความคืบหน้าการดำเนินโครงการบงกชใต้ พร้อมรับฟังข้อเสนอแนะ

เมื่อวันที่ 24 ก.พ. เวลาประมาณ 10.30 น. ทีมทีมHCR/I กทม.และ HCR/I สงขลา ร่วมกับ[redacted] (CSH/E) ได้เข้าพบ[redacted]องนายกสมาคมประมงจ.สงขลาเพื่อชี้แจงความคืบหน้าโครงการบงกชใต้

คุณไสว ระบุว่า พื้นที่ดำเนินโครงการไม่มีผลกระทบกับสมาชิกของสมาคม เนื่องจากอยู่ห่างจากชายฝั่งสงขลามาก และมีสมาชิกเพียงไม่กี่รายที่ใช้เป็นเพียงเส้นทางผ่านไปทำประมงในทะเลประเทศเพื่อนบ้าน(อินโดนีเซีย)

รองนายกสมาคมประมงกล่าวสรุปว่า อุตสาหกรรม E&P นอกชายฝั่งไม่มีผลกระทบหรือปัญหากับชาวประมง มีเฉพาะปัญหารายที่อยู่ใกล้ชายฝั่ง(นิวคอสตรอล) ซึ่งปัจจุบันทางสมาคมฯได้ยอมรับกลุ่มเรือประมงพื้นบ้านของ[redacted]เข้าร่วมเป็นสมาชิกของสมาคมแล้วเพื่อช่วยเหลือในการเจรจาค่าชดเชย(จากค่าภาคหลวง)

ในส่วนของความช่วยเหลืออื่นของปตท.สผ.ต่อสมาคมฯนั้น[redacted]กล่าวว่า ขอเป็นการช่วยเหลือเป็นกรณีเฉพาะมา เช่นกรณีวาตภัยเมื่อปลายปี 2553 ที่ผ่านมาที่ทางปตท.สผ.ได้ช่วยเหลือเข้ามาในนามของกระทรวงพลังงานและกรมเชื้อเพลิงธรรมชาติ ในส่วนด้านอื่นๆตนไม่อยากให้มีเพิ่มเติมเข้ามาในขณะนี้ เนื่องจากทางสมาคมฯยังมีปัญหาในการชี้แจงบัญชี เนื่องจากมีแต่เฉพาะการแจ้งรายรับแต่ไม่เคยมีการแสดงรายจ่าย หากไม่มีปัญหาในเรื่องนี้ ทางสมาคมฯจะประสานความร่วมมือกลับไปในอนาคต

สรุปการประชุมชี้แจงข้อมูลโครงการผลิตปิโตรเลียมในทะเล แหล่งบงกชใต้บริเวณอ่าวไทยร่วมกับสมาคมประมงอำเภอขนอม อำเภอสิชล และอำเภอปากพนัง ในวันที่ 4 – 5 ก.พ. 2554

ด้วย ปตท.สผ. โดย[redacted]ผู้จัดการฝ่ายกิจการสัมพันธ์[redacted]เจ้าหน้าที่รัฐกิจและชุมชนสัมพันธ์[redacted]เจ้าหน้าที่รัฐกิจและชุมชนสัมพันธ์ [redacted] Engineer, Development Studies&Planning [redacted]วิศวกรสิ่งแวดล้อม และ[redacted]ได้นัดประชุมร่วมกับ 3 สมาคมประมงในจังหวัดนครศรีธรรมราช เพื่อประชาสัมพันธ์ชี้แจงข้อมูลโครงการและแจ้งกำหนดการต่างๆ พร้อมทั้งแลกเปลี่ยนข้อมูลและรับฟังความคิดเห็น ตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อมของโครงการผลิตปิโตรเลียมในทะเลแหล่งบงกชใต้ ในวันที่ 4 และ 5 กุมภาพันธ์ 2554 ในระหว่างการประชุม เจ้าหน้าที่ ปตท.สผ. ได้ให้ข้อมูลพิกัดตำแหน่งที่ตั้งของแท่นต่างๆ ทั้ง 13 แท่น แผนการเจาะหลุมผลิต รวมทั้งกิจกรรมต่างๆ ของโครงการที่ได้ดำเนินการในช่วงปีที่ผ่านมา ทั้งนี้ ข้อคิดเห็นต่างๆ ที่ได้รับจากตัวแทนสมาคมประมงต่างๆ สรุปได้ดังนี้

รายละเอียดเกี่ยวกับสมาคม

- **สมาคมประมงอำเภอขนอม**

  วันที่ประชุม **4 กุมภาพันธ์ 2554 ระหว่างเวลา 10:00-11:30 น.**

  ผู้เข้าร่วมประชุม รองนายกสมาคมประมงอำเภอขนอมและตัวแทนสมาชิกสมาคม

  ตัวแทนจากฝ่ายสิ่งแวดล้อม และฝ่ายส่งเสริมองค์กรสัมพันธ์ ปตท.สผ.

สมาคมประมงอำเภอขนอม ตั้งอยู่เลขที่ 95 / 14 หมู่ 1 ซอยเทศบาล14 ตำบลขนอม อำเภอขนอม จังหวัดนครศรีธรรมราช โดยมี [redacted]ดำรงตำแหน่งนายกสมาคมฯ จากการประชุมฯ สามารถสรุปประเด็นสำคัญได้ดังนี้

- สมาคมฯ กำลังประสบปัญหาเรื่องเรือประมงที่เป็นประเภทเรือลากคราด ทำลายสิ่งมีชีวิตหน้าดิน
- สมาคมฯ ต้องการให้ ปตท.สผ. แจ้งข้อมูลข่าวสารเรื่องความคืบหน้าของโครงการผลิตเป็นระยะๆ
- สมาคมฯ ยินดีให้ความร่วมมือกับ ปตท.สผ. ในเรื่องงานมวลชน การวางปะการังเทียม และการมอบทุนการศึกษาลูกหลานชาวประมง

PTTEP-16 สรุปการประชุมชี้แจงข้อมูลโครงการบงกชใต้ ร่วมกับสมาคมประมงที่เกี่ยวข้อง

- **สมาคมประมงอำเภอสิชล**

วันที่ประชุม **4 กุมภาพันธ์ 2554 ระหว่างเวลา 14:00-15:30 น.**

ผู้เข้าร่วมประชุม [redacted] **นายกสมาคมฯและสมาชิกจำนวน 6 ท่าน**

ตัวแทนจากฝ่ายสิ่งแวดล้อม และฝ่ายส่งเสริมองค์กรสัมพันธ์ปตท.สผ.

สมาคมประมงอำเภอสิชล ตั้งอยู่เลขที่ 70/1 หมู่ที่ 3 ตำบลสิชล ตำบลสิชล อำเภอสิชล จังหวัดนครศรีธรรมราช โดยมี [redacted] เป็นนายกสมาคมฯ จากการประชุมฯ สามารถสรุปประเด็นสำคัญได้ดังนี้

- ผู้นำของสมาคมฯ มีความเข้มแข็งทางความคิด และเป็นที่นับถือของสมาชิกฯ เป็นอย่างสูง และยังมีความเข้าใจบทบาทของบริษัทน้ำมันเป็นอย่างดี
- สมาคมฯ กำลังประสบกับปัญหาเกี่ยวกฎหมายอาญาสิทธิทางทะเล โดยสมาคมฯ ได้อ้างถึงอนุสัญญาสหประชาชาติว่าด้วยกฎหมายทางทะเล เรื่องการทำประมงประเภทเรืออวนลาก ซึ่งเป็นสมาชิกของสมาคมฯ เกือบทั้งหมด เป็นเรือประเภทนี้ โดยในขณะนี้สมาคมฯ ต้องการที่ปรึกษาหรือคำแนะนำจาก ปตท.สผ.
- สมาคมฯ ยินดีจะทำโครงการมอบทุนการศึกษาบุตรหลานชาวประมงร่วมกับ ปตท.สผ. ซึ่งโดยปกติทางสมาคมฯ ก็ได้ทำการมอบทุนการศึกษาเป็นประจำทุกปีในวันที่ 5 ธันวาคม
- สมาคมฯ ไม่เห็นด้วยที่จะทำการวางปะการังเทียม
- สมาคมฯ เสนอให้มีการจัดตั้งกองทุนกู้ยืมเพื่อสนับสนุนกลุ่มอาชีพประมง

- **สมาคมประมงอำเภอปากพนัง**

วันที่ประชุม **5 กุมภาพันธ์ 2554 ระหว่างเวลา 10:00-11:00 น.**

ผู้เข้าร่วมประชุม [redacted] **นายกสมาคมและสมาชิก**

ตัวแทนจากฝ่ายสิ่งแวดล้อม และฝ่ายส่งเสริมองค์กรสัมพันธ์ปตท.สผ.

สมาคมประมงอำเภอปากพนัง ตั้งอยู่ที่เลขที่ 196 ถนน วารีสวัสดิ ตำบลปากพนัง อำเภอปากพนัง จังหวัดนครศรีธรรมราช โดยมี [redacted] เป็นนายกสมาคมฯ จากการประชุมฯ สามารถสรุปประเด็นสำคัญได้ดังนี้

- สมาคมฯ เข้าใจถึงสภาวะการจับปลาโดยใช้เครื่องมือที่ไม่ได้มาตรฐาน ซึ่งทำให้ปริมาณการจับสัตว์น้ำลดลงอย่างรวดเร็ว และเห็นด้วยกับการที่ ปตท.สผ.จะวางปะการังเทียมและมอบทุนการศึกษาซึ่งสมาคมฯ ได้ดำเนินการมอบทุนการศึกษาเป็นประจำทุกปีในช่วงเดือนเมษายน

ความสนใจของสมาคมประมงต่อโครงการผลิตปิโตรเลียมในทะเลแหล่งบงกชใต้

- **ที่ตั้งของโครงการฯ**

ประเด็นที่ทั้งสามสมาคมฯ ให้ความสนใจเป็นพิเศษ คือ เรื่องที่ตั้งของโครงการฯ ซึ่งอยู่ห่างจากชายฝั่งจังหวัดนครศรีธรรมราชประมาณ 300 กิโลเมตร กลุ่มชาวประมงกล่าวว่า ผู้ที่อาจได้รับผลกระทบ คือ กลุ่มเรือพาณิชย์ขนาดใหญ่ที่มีความสามารถในการเดินเรือออกไปในพื้นที่บริเวณนั้น ซึ่งโดยทั่วไปแล้วเรือประมงพาณิชย์จะเดินเรือออกไปในบริเวณน่านน้ำที่ไกลจากฝั่งออกไปและอาจถึงน่านน้ำฝั่งประเทศเพื่อนบ้าน ซึ่งใช้ระยะเวลาเดินเรือนาน 2 เดือนถึง 1 ปี ซึ่งทั้ง 3 สมาคมมีสมาชิกเป็นกลุ่มเรือประเภทนี้อยู่ด้วย

- **แผนการดำเนินงาน**

นอกจากเรื่องของที่ตั้งโครงการฯ แล้ว ทางสมาคมฯ ยังให้ความสนใจในเรื่องของแผนการดำเนินงาน ซึ่งทาง ปตท.สผ.ได้ให้ข้อมูลว่า โครงการฯ น่าจะเริ่มผลิตได้ในช่วงปลายปี 2554 – ปี 2555 ดังนั้นทางสมาคมฯ จึงต้องการให้แจ้งความคืบหน้าโครงการฯ เป็นระยะๆ ทั้งนี้ ยังได้ให้ความเห็นว่าไม่ควรเชิญชาวประมงทุกกลุ่มเข้าร่วมประชุมพร้อมกัน แต่ควรใช้การประชุมเจาะกลุ่มรายอาชีพ เนื่องจากมีช่องว่างและความต้องการในแต่ละอาชีพแตกต่างกันค่อนข้างชัดเจน โดยอาจจำแนกได้เป็นกลุ่มประมงขนาดใหญ่ที่ไม่ได้เข้าเป็นสมาชิกในสมาคมประมงที่บริหารจัดการธุรกิจด้วยตนเอง

ความสนใจของสมาคมประมงต่อโครงการ CSR

- **โครงการปะการังเทียม**

ประเด็นที่ถูกกล่าวถึงนอกเหนือจากนั้นเป็นเรื่องของโครงการกิจกรรมการมีส่วนร่วมระหว่างสมาคมฯ และ ปตท.สผ. โดยโครงการแรกที่กล่าวถึง คือ โครงการปะการังเทียมซึ่งสมาคมประมงอำเภอขนอมและอำเภอปากพนัง ให้ความสำคัญและเชื่อว่าการทำปะการังเทียมจะช่วยเพิ่มจำนวนทรัพยากรในทะเลได้จริง เนื่องจากปัจจุบันได้รับความสนับสนุนจากโรงไฟฟ้าขนอมและเริ่มเห็นผลที่ตามมา ส่วนสมาคมอำเภอสิชลไม่ให้ความสำคัญกับการสร้างปะการังเทียมมากนัก ซึ่งอาจมีสาเหตุจากการที่สมาคมประมงอำเภอสิชลเห็นว่าการทำปะการังเทียมยังไม่ใช่เรื่องเร่งด่วน แต่สมาคมฯ ก็ไม่ปฏิเสธและยินดีให้ความร่วมมือหาก ปตท.สผ.จะริเริ่มทำโครงการดังกล่าว

- **โครงการกองทุนส่งเสริมอาชีพประมง**

สมาคมประมงอำเภอสิชลได้เสนอแนวทางการทำโครงการกองทุนส่งเสริมอาชีพประมงเพื่อการกู้ยืม รวมทั้งการซ่อมแซมเรือประมงและอุปกรณ์จับปลา โดยสมาคมฯ ต้องการให้จัดเป็นรูปกองทุนออมทรัพย์ ซึ่งมีการกำหนดเพดานการกู้ยืมตามความเหมาะสมโดยให้คณะกรรมการกองทุนที่จะจัดตั้งขึ้นเป็นผู้พิจารณา ทั้งนี้การกำหนดรูปแบบกองทุน งบประมาณ และการดำเนินงาน เป็นสิ่งที่มีการบริหารจัดการอย่างใกล้ชิด โดยเฉพาะอย่างยิ่งหากจำเป็นต้องมีการขยายโครงการไปยังสมาคมประมงอื่นๆ

- **โครงการมอบทุนการศึกษาแก่บุตรหลานชาวประมง**

สมาคมประมงทั้งสามแห่งเห็นด้วยและจะให้การสนับสนุนหาก ปตท.สผ. จะร่วมสมทบทุนการศึกษาแก่บุตรหลานชาวประมง ซึ่งในแต่ละปีสมาคมฯ ได้ให้ทุนการศึกษาเป็นประจำอยู่แล้ว แต่ด้วยงบประมาณที่จำกัด ทำให้การมอบทุนไม่ทั่วถึง ทั้งนี้ โครงการนี้อาจเป็นจุดริเริ่มที่ดีในการสร้างความสัมพันธ์และสร้างภาพลักษณ์ในแง่บวก โดยงบประมาณการให้ทุนการศึกษาที่ได้หารือกับสมาคมฯ ในเบื้องต้นอยู่ที่ประมาณ 1 แสน – 2 แสนบาท ต่อ 1 สมาคม

ภาคผนวก PTTEP-17

ตัวอย่างรายงานการพยากรณ์อากาศ

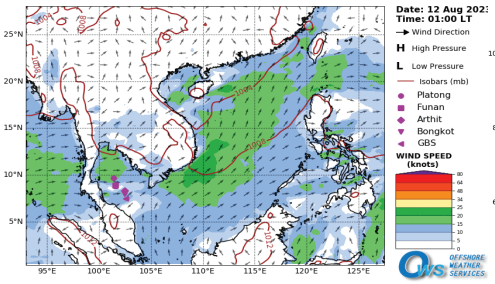
Offshore Weather Services Pty Ltd
277 Blackburn Road, Mt Waverley, Victoria 3149, Australia
ows@offshoreweather.com.au
offshoreweather.com.au

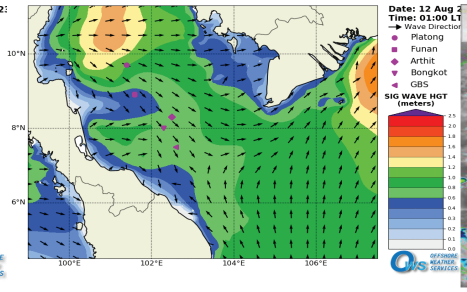
Weather Forecast for PTTEP Gulf of Thailand - Southern Operations - Arthit-Bongkot-Greater Bongkot South
Valid for 144 hours from 0600LT 12 Aug 2023

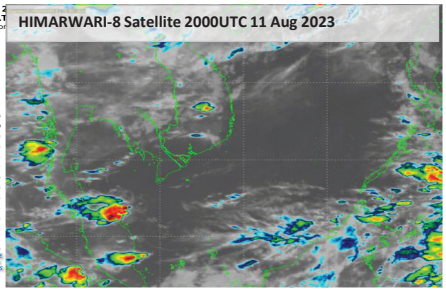
Tropical Advisory:
Nil.

Warnings:
MODERATE-HIGH risk of squalls to 25kt or more in heavy showers/thunderstorms. Squalls lasting for periods up to 20-30 minutes with onset gusts to 35kt and temporarily raised seas.

Met Situation:
Weak ridge over the southern inland China extends southward across the central-northern Thailand / Cambodia. A broad trough over the Gulf of Tokin extending to SE China and weakening 13th/14th as the trough gradually shifting S over the coastal SE China / northern South China Sea - Taiwan 15th-16th, then weakening slightly from the 17th-18th. One model indicates a low pressure trough deepening over the central-northern South China Sea - Luzon Strait 19th. Another weak ridge over the northern Sumatra / southern Malay Peninsula / central Borneo should persist.







Weather Forecast for PTTEP - Greater Bongkot South (near 7.5N 102.6E)
Valid for 144 hours from 0600LT 12 Aug 2023

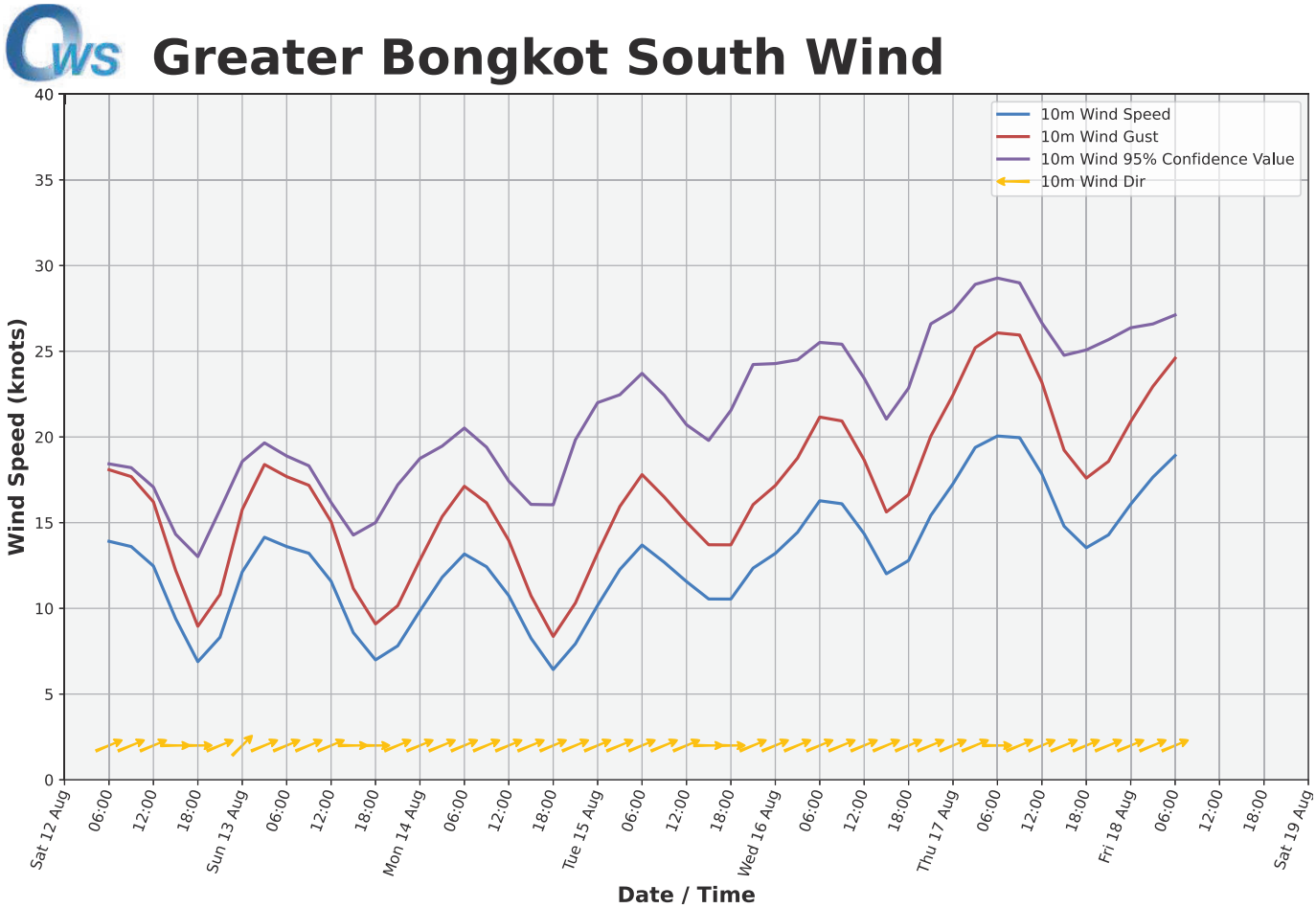
Weather:
Isol-sct showers / isol thunderstorms today-tomorrow. Otherwise, fair this afternoon/early evening.

Date/Time LT		Wind (from / knots)					Sea	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m	Ht	Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Sat 12-Aug	06:00	WSW	14	18	18	17	0.7	SSE	5	0.3	WNW	4	0.7	1.1	1.4	1.9	4	WNW	High
	09:00	WSW	14	18	18	16	0.7	WSW	3	0.4	NW	4	0.5	1.0	1.2	1.7	4	W	
	12:00	WSW	12	17	16	15	0.7	SE	5	0.3	W	4	0.6	0.9	1.2	1.7	4	W	
	15:00	W	9	14	12	11	0.5	W	4	0.5	SE	5	0.3	0.7	1.1	1.3	4	W	
	18:00	W	7	13	9	8	0.3	W	4	0.5	NW	4	0.4	0.7	1.0	1.2	4	WNW	
	21:00	WSW	8	16	11	10	0.2	WNW	4	0.5	NNW	4	0.3	0.6	0.9	1.1	4	WNW	
Sun 13-Aug	00:00	SW	12	19	16	15	0.4	W	4	0.5	NNW	5	0.3	0.7	1.1	1.3	5	W	High
	03:00	WSW	14	20	18	17	0.7	W	3	0.5	NNW	5	0.4	0.9	1.3	1.7	5	W	
	06:00	WSW	14	19	18	16	0.7	WSW	3	0.5	NW	4	0.5	1.0	1.4	1.8	5	W	
	09:00	WSW	13	18	17	16	0.7	SE	5	0.3	WNW	4	0.8	1.1	1.5	2.0	4	W	
	12:00	WSW	12	16	15	14	0.6	WSW	3	0.5	NW	4	0.5	0.9	1.4	1.7	4	W	
	15:00	W	9	14	11	10	0.4	W	3	0.5	NW	4	0.4	0.7	1.1	1.3	4	W	
	18:00	W	7	15	9	8	0.2	W	4	0.5	NNW	5	0.3	0.6	1.0	1.1	5	W	
	21:00	WSW	8	17	10	9	0.2	W	4	0.6	NNW	5	0.4	0.8	1.2	1.4	5	WNW	
Mon 14-Aug	00:00	WSW	10	19	13	12	0.3	W	4	0.7	NW	5	0.4	0.9	1.4	1.5	5	W	High
	03:00	WSW	12	19	15	14	0.5	W	4	0.8	NW	5	0.4	1.0	1.5	1.8	4	W	
	06:00	WSW	13	21	17	16	0.6	W	4	0.9	NW	5	0.5	1.2	1.7	2.2	4	W	
	09:00	WSW	12	19	16	15	0.6	WSW	4	0.8	NW	5	0.6	1.2	1.6	2.1	5	W	
	12:00	WSW	11	17	14	13	0.5	SE	5	0.3	W	5	1.0	1.2	1.6	2.1	5	W	
	15:00	WSW	8	16	11	10	0.3	SE	5	0.3	W	5	0.8	0.9	1.4	1.6	5	W	
	18:00	WSW	6	16	8	8	0.2	SE	5	0.3	W	5	0.7	0.8	1.3	1.4	5	W	
	21:00	WSW	8	20	10	10	0.2	NW	5	0.4	W	4	0.6	0.8	1.4	1.4	5	W	
Tue 15-Aug	00:00	WSW	10	22	13	12	0.3	WNW	5	0.7	SE	5	0.3	0.8	1.5	1.5	5	W	High
	03:00	WSW	12	22	16	15	0.5	WNW	4	0.6	SE	5	0.4	0.9	1.6	1.6	5	W	
	06:00	WSW	14	24	18	16	0.6	WNW	4	0.6	SE	5	0.4	1.0	1.7	1.7	5	W	
	09:00	WSW	13	22	16	15	0.7	WNW	5	0.6	SE	5	0.5	1.0	1.7	1.8	5	W	
	12:00	WSW	12	21	15	14	0.6	WNW	5	0.6	SE	5	0.4	0.9	1.6	1.7	5	W	
	15:00	W	11	20	14	13	0.5	WNW	4	0.5	SE	5	0.4	0.8	1.4	1.4	5	W	
	18:00	W	11	22	14	13	0.4	W	4	0.4	NNW	6	0.5	0.8	1.4	1.4	5	WNW	
	21:00	WSW	12	24	16	15	0.5	SE	5	0.4	NW	5	0.7	1.0	1.7	1.7	5	WNW	
Wed 16-Aug	00:00	WSW	13	24	17	16	0.6	SE	5	0.3	NW	5	0.7	1.0	1.8	1.8	5	WNW	Moderate
	03:00	WSW	14	25	19	17	0.7	SE	5	0.3	NW	5	0.6	1.0	1.8	1.8	5	WNW	
	06:00	WSW	16	26	21	20	0.8	SE	5	0.4	WNW	5	0.6	1.1	1.8	2.0	5	WNW	
	09:00	WSW	16	25	21	19	0.9	SE	5	0.4	WNW	5	0.5	1.1	1.8	2.0	5	W	
	12:00	WSW	14	23	19	17	0.8	SE	5	0.3	WNW	5	0.5	1.0	1.7	1.8	5	W	
	15:00	WSW	12	21	16	14	0.7	SE	5	0.3	WNW	4	0.6	0.9	1.6	1.7	5	W	
	18:00	WSW	13	23	17	15	0.6	SE	5	0.3	WNW	4	0.7	1.0	1.5	1.7	4	W	
	21:00	WSW	15	27	20	19	0.7	W	4	0.6	NW	4	0.4	1.0	1.7	1.9	4	W	

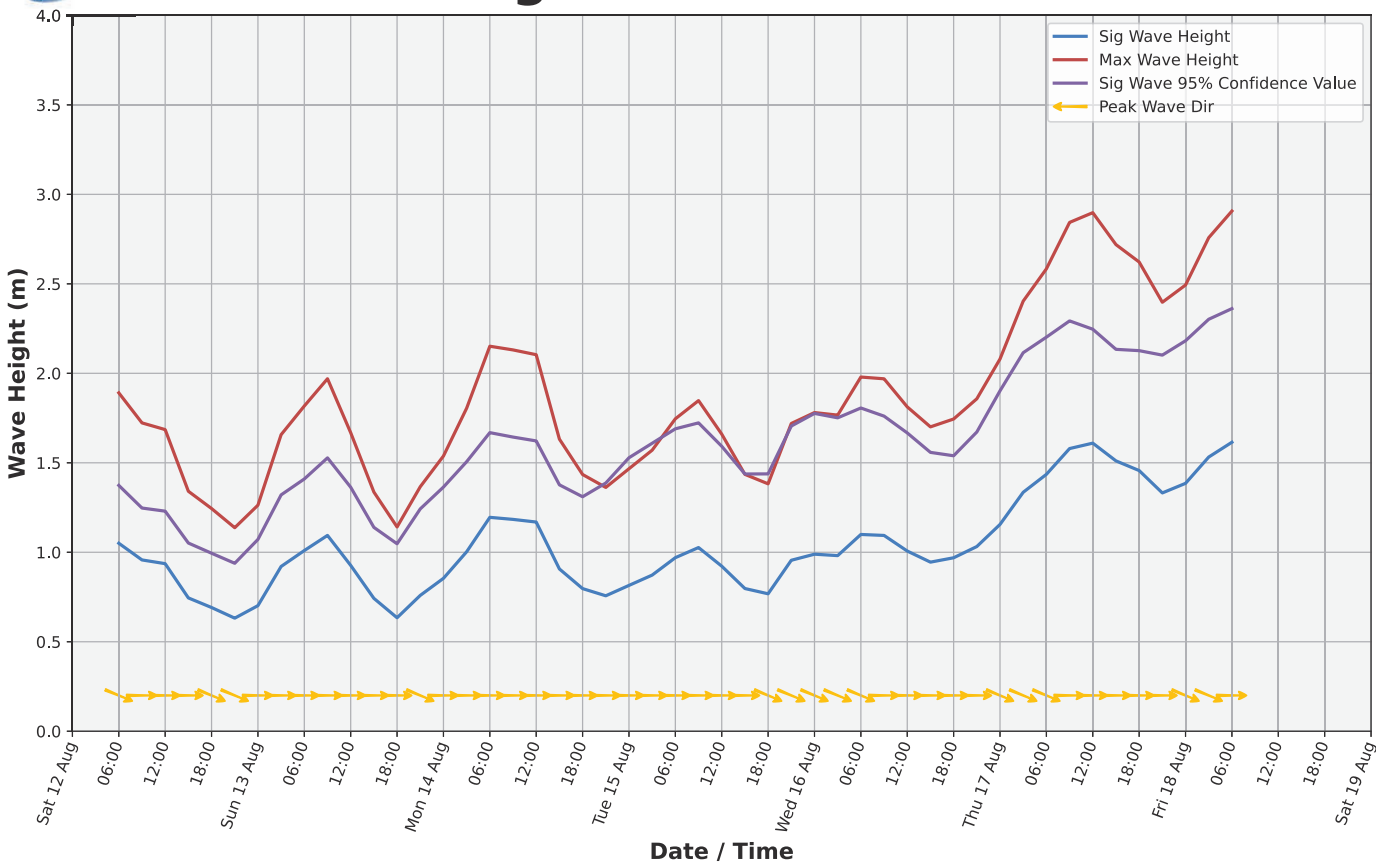
Date/Time LT		Wind (from / knots)					Sea	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m	Ht	Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Thu 17-Aug	00:00	WSW	17	27	22	21	0.9	SSE	5	0.2	WNW	4	0.7	1.2	1.9	2.1	4	WNW	Moderate
	03:00	WSW	19	29	25	23	1.0	NNW	5	0.5	W	4	0.7	1.3	2.1	2.4	4	WNW	
	06:00	W	20	29	26	24	1.1	NW	4	0.6	W	4	0.7	1.4	2.2	2.6	4	WNW	
	09:00	WSW	20	29	26	24	1.1	W	4	1.1	SSE	5	0.2	1.6	2.3	2.8	4	W	
	12:00	WSW	18	27	23	21	1.1	W	4	1.2	SSE	5	0.2	1.6	2.2	2.9	4	W	
	15:00	WSW	15	25	19	18	0.9	W	5	1.2	SSE	5	0.2	1.5	2.1	2.7	5	W	
	18:00	WSW	14	25	18	16	0.7	W	5	1.1	NW	6	0.6	1.5	2.1	2.6	5	W	
	21:00	WSW	14	26	19	17	0.7	W	5	1.0	NNW	6	0.5	1.3	2.1	2.4	5	W	
Fri 18-Aug	00:00	WSW	16	26	21	19	0.8	W	5	1.0	NNW	6	0.5	1.4	2.2	2.5	5	WNW	Moderate
	03:00	WSW	18	27	23	21	0.9	WNW	4	1.2	SSE	6	0.2	1.5	2.3	2.8	4	WNW	
	06:00	WSW	19	27	25	23	1.0	W	4	1.1	NNW	5	0.6	1.6	2.4	2.9	4	W	

Units: wind speed/gust in knots; wave height in metres; wave periods in seconds; directions from
* Forecast mean wind / significant wave height upper bound (estimated 95% confidence).

Duty Forecaster: OWS Forecast Team



Greater Bongkot South Wave



Additional route / area weather forecasts:

Supply Base to Arthit & Bongkot fields, valid for 24 hours:

Winds: W-WSW 09-15kt.

Seas: 0.3-0.8m

Swell: NW-WSW 0.4-0.7m/3-5sec.

Weather: Isol-sct showers / isol thunderstorms today-tomorrow. Otherwise, fair this afternoon/early evening.

Supply Base to Greater Bongkot South field, valid for 24 hours:

Winds: W-SW 07-14kt.

Seas: 0.2-0.7m

Swell: WNW-SSE 0.3-0.5m/3-5sec.

Weather: Isol-sct showers / isol thunderstorms today-tomorrow. Otherwise, fair this afternoon/early evening.

Duty Forecaster: OWS Forecast Team

เรือสนับสนุน

ภาคผนวกเรือสนับสนุน-1

ข้อกำหนดและนโยบายต่าง ๆ ของเรือสนับสนุน SC Bongkot

SC Pailin และ SC Winter

5.14 PPE Matrix Table

	Coverall	Foot Protection	Head Protection	Floatation Device	Work Gloves	Butcher Gloves	Rubber Gloves	Hearing Protection	Eye Protection	Respiratory Protection	Fall Arrest	Welding Mask	Welding Gloves	Welding Apron	Face Shield
Cargo / Crane / Stores Operations	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate						
Mooring Operations	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate						
Anchor Handling	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate						
Towing Operations	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate						
Machinery Spaces	Mandate	Mandate	Mandate		Mandate			Mandate	Mandate						
Personnel Transfer	Mandate	Mandate	Mandate	Mandate	Mandate				Recommend						
Working at Height (> 1.80 Meters)	Mandate	Mandate	Mandate	Recommend	Mandate				Mandate		Mandate				
Working Over Water	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate		Mandate				
Chipping / Painting	Mandate	Mandate	Mandate	Recommend	Mandate			Recommend	Mandate	Recommend					Recommend
Power Tools	Mandate	Mandate	Mandate		Mandate				Mandate						Recommend
Chemical / Corrosives	Mandate	Mandate	Recommend				Mandate		Mandate	Recommend					Mandate
Small Boat Operations	Mandate	Mandate	Mandate	Mandate	Mandate				Mandate						
Batteries	Mandate	Mandate	Mandate				Mandate		Mandate	Recommend					Mandate
Confined Spaces	Mandate	Mandate	Mandate		Mandate			Recommend	Mandate	Recommend	Recommend				
High Pressure Systems	Mandate	Mandate	Mandate		Mandate			Recommend	Mandate						
Store Rooms		Mandate			Recommend		Recommend								
Galley		Mandate				Mandate									
Welding / Cutting/ Grinding	Mandate	Mandate	Recommend						Mandate			Mandate	Mandate	Mandate	Recommend
Electrical Work	Mandate	Mandate	Mandate				Recommend		Mandate						
Dusty Areas (Includes Dry Bulk)	Mandate	Mandate	Mandate		Mandate				Mandate						
Docks, Quays, Harbors, Dry-Dock Etc.	Mandate	Mandate	Mandate	Recommend	Mandate			Recommend	Mandate	Mandate					

Mandate **Recommend**

6. RELATED FORMS

N/A

7. APPENDIX

Appendix 7.1 : Table Selection of Proper Type of Eye Protection

8. REFERENCE STANDARD

- The International Safety Management (ISM) Code
- International Bulk Chemical Code (IBC Code)

SECTION 9 : SAFETY MANAGEMENT

P-09-10

Hazardous Substances

Originator : [redacted] , Name : [redacted]
Title : SHE Manager

Approved by : [redacted] , Name : [redacted]
Title : Senior Vice President

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Uncontrolled			

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SECTION 10 : ENVIRONMENTAL MANAGEMNT

P-10-01

Environmental Management

Originator	: [redacted]	, **Name :** [redacted] **Title** : Technical Division Manager
Approved by	: [redacted]	, **Name :** [redacted] **Title** : Deputy Managing Director

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SECTION 3 : MANAGEMENT OF VESSEL PERSONNEL

P-03-02

Competence and Training

Originator : [redacted]	, **Name** : [redacted] **Title** : Marine Crew Director	
Approved by : [redacted]	, **Name** : [redacted] **Title** : Deputy Managing Director	

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ของพนักงานที่ปฏิบัติงาน

SECTION 6 : OPERATIONS AND THE MANAGEMENT OF CONTRACTOR

P-06-06

Lifting and Hoisting Operations

Originator : [redacted] , Name : [redacted]
Title : Operation Manager

Approved by : [redacted] , Name : [redacted]
Title : Senior Vice President

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P-11-01

Emergency and Contingency

Originator	: [redacted]	, **Name :** [redacted] **Title** : Marine QSHE Manager
Approved by	: [redacted]	, **Name :** [redacted] **Title** : Deputy Managing Director

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ภาคผนวกเรือสนับสนุน-2

เรือสนับสนุน SC Bongkot

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepared by : [redacted] Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name : SC BONGKOT (AUXILARY EQUIPMENT)

ชื่อเรือ

	Air Comp. 1	Air Comp. 2	Service Comp.
Total running hour this month	6724.10	6837.8	5319.2
Previous M. run. Hrs.	6689.30	6796.1	5272.2
Running hour service	34.8	41.7	47

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/Period	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		AIR COMPRESSOR (No.1)					
SB001-04-001	AC 1001	O/H AIR COMPRESSOR	5000	3-Sep-21	6086.9	11086.9	
SB001-04-001	AC 1002	CHECK AND CLEANING OF VALVE AIR COMPRESSOR	3 MONTHS	20-Feb-23	6630.8	21-May-23	INSPECTED
SB001-04-001	AC 1003	CHANGE LUB OIL OF AIR COMPRESSOR	250	16-Feb-23	6617.5	6867.5	
SB001-04-001	AC 1004	CHECK CRANK CASE OF AIR COMPRESSOR	1000	16-Feb-23	6617.5	7617.5	
SB001-04-001	AC 1005	CHECK COUPLING BOLT	1500	3-Sep-21	6086.9	7586.9	
SB001-04-001	AC 1006	SAFETY DEVICE TEST	MONTHLY	29-Apr-23	6718.9	29-May-23	
		AIR RECEIVER TANK NO.1					
SB001-04-002	AR 1007	CHECK AND CLEAN AIR RESERVOIR	5 YEARS	14-May-21		13-May-26	
SB001-04-002	AR 1008	O/H SAFETY VALVE	5 YEARS	14-May-21		13-May-26	
SB001-04-002	AR 1009	LAPPING VALVE IN SYSTEM	YEARLY	10-Jan-23		10-Jan-24	
SB001-04-002	AR 1010	TEST AND RESVT SAFETY VALVE	YEARLY	14-Jul-22		14-Jul-23	
		AIR COMPRESSOR (No.2)					
SB001-04-003	AC 1011	O/H AIR COMPRESSOR	5000	1-Sep-21	6164.5	11164.5	
SB001-04-003	AC 1012	CHECK AND CLEANING OF VALVE AIR COMPRESSOR	3 MONTHS	29-Sep-23	6837.6	28-Dec-23	INSPECTED
SB001-04-003	AC 1013	CHANGE LUB OIL OF AIR COMPRESSOR	250	15-Oct-22	6634.5	6884.5	
SB001-04-003	AC 1014	CHECK CRANK CASE OF AIR COMPRESSOR	1000	15-Oct-22	6634.5	7634.5	
SB001-04-003	AC 1015	CHECK COUPLING BOLT	1500	1-Sep-21	6164.5	7664.5	
SB001-04-003	AC 1016	SAFETY DEVICE TEST	MONTHLY	29-Apr-23	6837.6	29-May-23	
		AIR RECEIVER TANK NO.2					
SB001-04-004	AR 1017	CHECK AND CLEAN AIR RESERVOIR	5 YEARS	14-May-21		13-May-26	
SB001-04-004	AR 1018	O/H SAFETY VALVE	5 YEARS	14-May-21		13-May-26	
SB001-04-004	AR 1019	LAPPING VALVE IN SYSTEM	YEARLY	14-Jul-22		14-Jul-23	
SB001-04-004	AR 1020	TEST AND RESVT SAFETY VALVE	YEARLY	14-Jul-22		14-Jul-23	
		SERVICE COMPRESSOR					
SB001-04-005	AC 2001	O/H AIR COMPRESSOR	5000	14-May-21		5000	
SB001-04-005	AC 2002	CHECK AND CLEANING OF VALVE AIR COMPRESSOR	3 MONTHS	31-Jan-23	5188.1	1-May-23	INSPECTED
SB001-04-005	AC 2003	CHANGE LUB OIL OF AIR COMPRESSOR	500	16-Jan-23	5172.8	5672.8	
SB001-04-005	AC 2004	CHECK CRANK CASE OF AIR COMPRESSOR	1000	16-Jan-23	5172.8	6172.8	
SB001-04-005	AC 2005	CHECK BELT AND RENEW	1500	14-May-21	4104.0	5604	N/A
SB001-04-005	AC 2006	SAFETY DEVICE TEST	MONTHLY	29-Apr-23	5313.4	29-May-23	
		SERVICE AIR RECEIVER TANK					
SB001-04-006	AR 3001	CHECK AND CLEAN AIR RESERVOIR	5 YEARS	14-May-21		13-May-26	
SB001-04-006	AR 3002	O/H SAFETY VALVE	5 YEARS	14-May-21		13-May-26	
SB001-04-006	AR 3003	LAPPING VALVE IN SYSTEM	YEARLY	14-Jul-22		14-Jul-23	

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepare by : [redacted] Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name : SC BONGKOT (AUXILARY EQUIPMENT)

ชื่อเรือ

Total running hour this month
Previous M. run. Hrs.
Running hour service

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/Period	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		FIFI - MONITOR					
SB001-08-001	FM 1001	CLEANED L.O FILTER	MONTHLY	24-Apr-23		24-May-23	Check
SB001-08-001	FM 1002	CLEANED SEA CHEST / STRAINER	2 MONTHS	N/A			
SB001-08-001	FM 1003	CLEANING L.O COOLER	2 MONTHS	24-Apr-23		23-Jun-23	
SB001-08-001	FM 1004	INSPECT FOUNDATION BOLT	6 MONTHS	20-Feb-23		19-Aug-23	
SB001-08-001	FM 1005	INSPECT OF INTERNAL PART	Monthly	24-Apr-23		24-May-23	
SB001-08-001	FM 1006	LUB. OIL ANALYSIS	6 Monthly	8-Feb-23		7-Aug-23	Fi-Fi Port
SB001-08-001	FM 1007	FULL OVER HAUL	5 YEARS	24-Aug-22		23-Aug-27	
		MONITOR & VALVE					
SB001-08-002	MV 2001	4-WAY DECK HEAD VALVE GREASING	2 MONTHS	24-Apr-23		23-Jun-23	
SB001-08-002	MV 2002	WATER SPRAY SYSTEM VALVE GREASING	2 MONTHS	24-Apr-23		23-Jun-23	
SB001-08-002	MV 2003	CHECK AND TESTED MONITOR OPERATED BY MANUALLY	2 MONTHS	24-Apr-23		23-Jun-23	
SB001-08-002	MV 2004	INSPECT AND CHECK BOLT ARE SECURELY TIGHTENED	2 MONTHS	24-Apr-23		23-Jun-23	
		QUICK CLOSING VALVE SYSTEM					
SB001-08-003	QC 3001	QUICK CLOSING VALVES TEST.	MONTHLY	26-Apr-23		26-May-23	
SB001-08-003	QC 3002	EMERG.GENERATOR QUICK CLOSING VALVE TEST	3 MONTHS	22-Apr-23		21-Jul-23	
SB001-08-003	QC 3003	QUICK RELEASE OF ER DAMPERS TEST	3 MONTHS	26-Apr-23		25-Jul-23	
SB001-08-003	QC 3004	QUICK RELEASE OF GALLEY DAMPERS TESTS	3 MONTHS	26-Apr-23		25-Jul-23	
		WATER MIST AND SPRINKER SYSTEM					
SB001-08-004	WM 4001	WATER MIST SYSTEM PURIFIERS AREA(AIR BLOW)	3 MONTHS	N/A			
SB001-08-004	WM 4002	WATER MIST SYSTEM D/G 1 AREA(AIR BLOW)	3 MONTHS	23-Apr-23		22-Jul-23	
SB001-08-004	WM 4003	WATER MIST SYSTEM D/G 2 AREA(AIR BLOW)	3 MONTHS	23-Apr-23		22-Jul-23	
SB001-08-004	WM 4004	WATER MIST SYSTEM D/G 3 AREA(AIR BLOW)	3 MONTHS	23-Apr-23		22-Jul-23	
SB001-08-004	WM 4005	WATER MIST SYSTEM D/G 4 AREA(AIR BLOW)	3 MONTHS	23-Apr-23		22-Jul-23	
SB001-08-004	WM 4006	SPRINKER SYSTEM IN PAINT ROOM	3 MONTHS	23-Apr-23		22-Jul-23	
		CO2 SYSTEM					
SB001-08-005	CO2 5001	ENGINE ROOM CO2 LINES BLOWN THRO'	MONTHLY	26-Apr-23		26-May-23	
SB001-08-005	CO2 5002	ENGINE ROOM CO2 ALARMS & TRIPS	MONTHLY	26-Apr-23		26-May-23	
		EMERGENCY STOP					
SB001-08-006	ES 6001	EMERGENCY STOPS DECK&ACCOMODATION	6 MONTHS	23-Nov-22		22-May-23	
SB001-08-006	ES 6002	EMERGENCY STOPS BUNKER STATION.	3 MONTHS	16-Feb-23		17-May-23	
		EMERGENCY GENERATOR					
SB001-08-007	EG 7001	EMERGENCY GENERATOR LOAD TEST	6 MONTHS	19-Nov-22		18-May-23	
SB001-08-007	EG 7002	EMERGENCY GENERATOR L.O. & FILTER CHANGE.	2 YEARS	23-Jun-22		22-Jun-24	
SB001-08-007	EG 7003	EMERGENCY GENERATOR COOLING SYSTEM TEST.	6 MONTHS	19-Nov-22		18-May-23	
SB001-08-007	EG 7004	EMERGENCY GENERATOR STARTING MOTOR CHECK.	2 YEARS	16-May-21		16-May-23	

เอกสารนี้เป็นทรัพย์สินของบริษัท

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepare by : [redacted]. Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name : SC BONGKOT

ชื่อเรือ

Total running hour this month
Previous M. run. Hrs.
Running hour service

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		CRITICAL SPARE					
		GENERATOR ENGINE (CRITICAL SPARE)					
SB001-22-000	CS 2001	Crank pin bearing	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2002	Bush Piston Pin	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2003	Valve Rotator HRV 22600	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2004	Gasket Cylinder Head	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2005	Gasket T/C Outlet	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2006	Gasket T/C Inlet	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2007	Fuel Injection Valve	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2008	Assy.Fuel Injection Pump	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2009	Fuel oil Feed Pump (210HW056) - Overhauled	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2010	Piston Ring Set	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2011	Thrust Metel	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2012	Intanke Valve	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2013	Exhaust Valve	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2014	Assy. L.O. Pump - V360	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2015	Assy. F.O. Pump - Trochoid TOP-210HWVB With Driving Gear	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2016	Assy. CW.Pump - (R-90) & (R-0)	Monthly	30-Apr-23		30-May-23	
		AZIMUTH THRUSTER (CRITICAL SPARE)					
SB001-22-000	CS 2017	Main Contactor Type:LC-F630	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2018	Hyd Hose 3/4"" WP 420 Bar	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2019	Hyd Hose 1/2" WP 275 Bar	Monthly	30-Apr-23		30-May-23	
		STEERING GEAR AND AUTO PILOT (CRITICAL SPARE)					
SB001-22-000	CS 2020	Relay 24 Volt	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2021	Relay 240 Volt	Monthly	30-Apr-23		30-May-23	
		FIRE FIGHTING SYSTEM (FIFI) (CRITICAL SPARE)					
SB001-22-000	CS 2022	Oil Filter	Monthly	30-Apr-23		30-May-23	
		DYNAMIC POSITIONNING SYSTEM (DP) (CRITICAL SPARE)					
SB001-22-000	CS 2023	Main Fuse	Monthly	30-Apr-23		30-May-23	
		NAVIGATION EQUIPMENT (CRITICAL SPARE)					
SB001-22-000	CS 2024	Fuse 2 Amp	Monthly	30-Apr-23		30-May-23	
SB001-22-000	CS 2025	Navigation Light Bulb 40 W 24 V (DC)	Monthly	30-Apr-23		30-May-23	

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepared by : [redacted] Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name: SC BONGKOT (MAIN GENERATOR ENGINE No.1)

ชื่อเรือ

Total running hour this month 23248.3
Previous M. run. Hrs. 22894.4
Running hour service 353.9

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/Period	Last M. date	Last M. Hours	R/H	Remark หมายเหตุ
SB001-03-001		**Cylinder head**					
SB001-03-001	GE 1001	Checking that the cyclinder head bolts are tightened, and re-tightening	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1003	Cylinder head inspeclion and cleaning	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1004	Replacement of O-ring nozzle holder guide	16000-24000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1005	Replacement of exhaust valve seat and O-ring	16000-24000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1006	Jacket Inspection	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1007	Disassembly, inspection and running-in of intake and exhaust valves	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1008	Disassembly and inspection of valve rotator	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1009	Inspection of valve spring and cotter	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1010	Disassembly and inspection of starting valve	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1011	Disassembly and inspection of rocker arm	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001	GE 1012	Disassembly and inspection of indicator and safety valve	8000-12000	14-May-21	16556.48	6691.82	
SB001-03-001		**Piston**					
SB001-03-001	GE 1013	Piston extraction (including connecting rod small end part)	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1014	Piston inspection, cleaning and measurement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1015	Piston ring replacement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1016	Piston pin inspection and measurement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1017	Piston pin bush inspection	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001		**Connecting rod**					
SB001-03-001	GE 1018	Connecting rod bolt inspection and retightening	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001	GE 1019	Crankpin bearing overhaul inspection, and metal replacement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1020	Crankpin inspection and measurement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001	GE 1021	Connecting rod bolt inspection and replacement	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001		**Protection ring**					
SB001-03-001	GE 1022	Extraction, inspection, cleaning and measurement	8000-12000	11-May-21	16556.48	6691.82	Replace
SB001-03-001		**Cylinder liner**					
SB001-03-001	GE 1023	Cylinder liner Inner surface inspection and measurement	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 1024	Cylinder liner extraction	16000-24000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 2025	Inspection on jacket side	16000-24000	13-May-21	16556.48	6691.82	
SB001-03-001		**Main bearing**					
SB001-03-001	GE 2026	Replacement of O-ring	16000-24000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 2027	Checking that the main bearing bolt is tightened	16000-24000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 2028	Checking main bearing disassembly and inspection, replacement of metal	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001		**Crankshaft**					
SB001-03-001	GE 2029	Defection measurement Balance weight bolt tightening check	2000-3000	1-Dec-22	21321.33	1926.97	
SB001-03-001	GE 2030	Wiring inspection	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001	GE 2031	Inspection by torque wrench	16000-24000	13-May-21	16556.48	6691.82	
SB001-03-001		**Timing gear**					
SB001-03-001	GE 2032	Check and retighten the tightening bolts	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 2033	Check and backlash of gears	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001	GE 2034	Overhaul the idle gear, and check and measure the bush	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001		**Cam gear**					
SB001-03-001	GE 2035	Disassemble and check the gear	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001		**Camshaft**					
SB001-03-001	GE 2036	Draw out, check and measure the camshaft	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001		**Camshaft bearing**					
SB001-03-001	GE 2037	Check and measure the cam bearing	8000-12000	13-May-21	16556.48	6691.82	
SB001-03-001		**Fuel oil injection timing**					
SB001-03-001	GE 2038	Check	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Fuel oil injection pump**					

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepared by : [redacted] Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name: SC BONGKOT (MAIN GENERATOR ENGINE No.1)

ชื่อเรือ

Total running hour this month	23248.3
Previous M. run. Hrs.	22894.4
Running hour service	353.9

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/Period	Last M. date	Last M. Hours	R/H	Remark หมายเหตุ
SB001-03-001	GE 2039	Disassemble, and check	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001	GE 2040	Replacement of O-rings	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001	GE 2041	Plunger assembly and delivery valve replacement	16000-24000	12-Jun-16		23248.3	
SB001-03-001	GE 2042	Spring, tapppet replacement	16000-24000	12-Jun-16		23248.3	
SB001-03-001		**Fuel oil injection valve**					
SB001-03-001	GE 2043	Check and clean and adjust the injection pressure	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Fuel oil piping system**					
SB001-03-001	GE 2044	Replacement of O-rings	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Valve opereting device**					
SB001-03-001	GE 2045	Disassemble the swing arm and check the tappet roller	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Governor**					
SB001-03-001	GE 2046	Disassemble, and check	*	15-May-21	16556.48	*	
SB001-03-001		**Governor driving device**					
SB001-03-001	GE 2047	Disassemble, check and clean	16000-24000	16-May-21	16556.48	6691.82	
SB001-03-001	GE 2048	Replace the bearing and O-ring	16000-24000	16-May-21	16556.48	6691.82	
SB001-03-001		**Turbocharger**					
SB001-03-001	GE 2049	Disassemble, check and clean	*	16-May-21	16556.48	*	
SB001-03-001		**Air cooler**					
SB001-03-001	GE 2050	Disassemble, check, clean, and water pressure test	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Starting air valve**					
SB001-03-001	GE 2051	Disassemble, check and clean	8000-12000	9-May-21	16556.48	6691.82	
SB001-03-001	GE 2052	Replacement of O-rings	8000-12000	9-May-21	16556.48	6691.82	
SB001-03-001		**Starting air rotary valve**					
SB001-03-001	GE 2053	Disassemble, check and clean	8000-12000	9-May-21	16556.48	6691.82	
SB001-03-001		**Fuel oil relief valve**					
SB001-03-001	GE 2054	Disassemble and check	8000-12000	11-May-21	16556.48	6691.82	
SB001-03-001		**Pulse absorber**					
SB001-03-001	GE 2055	Replacement	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001		**Fuel oil feed pump**					
SB001-03-001	GE 2056	Disassemble and Inspection, bearing replacement	8000-12000	12-Mar-20	16556.48	6691.82	
SB001-03-001		**Lubricating oil pump**					
SB001-03-001	GE 2057	Disassemble, check and clean	8000-12000	2-May-21	16556.48	6691.82	
SB001-03-001	GE 2058	Replacement the bearing and oil seal	8000-12000	2-May-21	16556.48	6691.82	
SB001-03-001		**Lubricating oil cooler**					
SB001-03-001	GE 2059	Disassemble, check, clean, and water pressure test	4000-6000	6-Mar-23	22515.72	732.58	
SB001-03-001		**Lubricating oil rellef valve**					
SB001-03-001	GE 2060	Disassemble, check and clean	8000-12000	15-May-21	16556.48	6691.82	
SB001-03-001		**Lubricating oil thermoslat valve**					
SB001-03-001	GE 2061	Disassemble, check, clean and replace the pellet	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001		**Lubricating oil filter**					
SB001-03-001	GE 2062	Disassemble, check and clean	8000-12000	21-Apr-22	19031.4	4216.9	
SB001-03-001	GE 2063	Lub oil sump tank renew	2500	13-Jan-23	21846.21	1402.09	
SB001-03-001		**Cooling water pump**					
SB001-03-001	GE 2064	Disassemble, check and clean	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001	GE 2065	Replace the oil seal and mechanical seal	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001	GE 2066	Replace the bearing	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001		**Cooling water temperature control valve**					
SB001-03-001	GE 2067	Disassembly, inspection, cleaning and element replacement	8000-12000	12-Mar-20	11819	11429.3	
SB001-03-001		**Fuel oil shut-down device**					
SB001-03-001	GE 2068	Disassembly, inspection, and cleaning	8000-12000	15-May-21	16556.48	6691.82	

SC GROUP	Date : 01/01/2018	Revision : 3	Ref : F-04-TEC/01
	Planned Maintenance System		

Prepared by : [redacted] Date : 11-May-2023

Inspected by : [redacted] Date : 11-May-2023

Ship Name : SC BONGKOT Month : May-23

Ship Name: SC BONGKOT (MAIN GENERATOR ENGINE No.1)

ชื่อเรือ

Total running hour this month	23248.3
Previous M. run. Hrs.	22894.4
Running hour service	353.9

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/Period	Last M. date	Last M. Hours	R/H	Remark หมายเหตุ
SB001-03-001	GE 2069	Oring replacement	8000-12000	15-May-21	16556.48	6691.82	
SB001-03-001		**Gauges**					
SB001-03-001	GE 2070	Replacement of pressure gauge hose	16000-24000	12-Jun-16		23248.3	
SB001-03-001	GE 2071	Inspection of pressure gauge and tachometer (Calibration)	1000-1500	6-Mar-23	22515.72	732.58	Inspection
SB001-03-001	GE 2072	Replacement of F.O. pressure gauge ethylene glycol (in case of heavy fuel oil specifica	4000-6000	28-Nov-22	21321.28	1927.02	Inspection
SB001-03-001	GE 2073	ENGINE OIL SAMPLE - OBTAIN	6 MONTHS	8-Feb-2023	21919	7-Aug-23	
SB001-03-001	GE 2074	REPLACE ZINC ANODE S.W COOLER ALL UNIT	250	N/A			

ภาคผนวกเรือสนับสนุน-2.2

ใบรับรองต่าง ๆ ของเรือสนับสนุน SC Bongkot

SPECIAL PURPOSE SHIP SAFETY CERTIFICATE

(This Certificate shall be supplemented by a Record of Equipment (Form SPS))

Issued in compliance with the provisions of the
Code of Safety for Special Purpose Ships, 2008
as adopted by Resolution MSC.266(84)
under the authority of the Government of

Kingdom of Thailand
(Name of the State)

by American Bureau of Shipping

Particulars of Ship

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage
SC BONGKOT	HSB 6282	Bangkok	2332
Ship's Special Purpose	Sea areas in which ship is certified to operate (regulation IV/2)	IMO Number [1]	Date on which keel was laid [2]
OFFSHORE SUPPORT, TOWING, ANCHOR HANDLING AND FIRE FIGHTING VESSEL	A1, A2 and A3	9721516	29 May 2014

THIS IS TO CERTIFY:

1 That the ship has been surveyed in accordance with the requirements of Regulations 1.6 of the Code.

2 That the survey showed that:

2.1 the ship complied with the provisions of the Code as regards:

2.1.1 the structure, main and auxiliary machinery, boilers and other pressure vessels; and

2.1.2 the watertight subdivision arrangements and details;

2.2 the ship complied with the provisions of the Code as regards structural fire protection, fire safety system and appliances, and fire control plans;

2.3 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the provisions of the Code;

2.4 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the provisions of the Code;

2.5 the ship complied with the provisions of the Code as regards radio installations;

2.6 the functioning of the radio installations used in life-saving appliances complied with the provisions of the Code;

2.7 the ship complied with the provisions of the Code as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

1 In accordance with the IMO Ship Identification Number Scheme, adopted by resolution A1117(30).
2 Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or alterations or modification of a major character was commenced.

2.8 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the provisions of the Code and the International Regulations for Preventing Collisions at Sea in force; and

2.9 in all other respects, the ship complied with the relevant provisions of the Code.

3. That an Exemption Certificate has / ~~has not~~ [3] been issued.

4. That the ship has / ~~has not~~ [3] been provided with Certificates issued under the 1974 SOLAS Convention, as amended.

This certificate is valid until 13 May 2026

Completion date of survey on which this certificate is based: 21 May 2021

Issued at Map Ta Phut, Thailand on 21 May 2021
(Place of Issue of Certificate) [redacted] *(Date of Issue)*

Electronically Signed By
([redacted])

3 Delete as appropriate

เอกสารแนบ-2.2.1 Special Purpose Ship Certificate

ENDORSEMENT FOR ANNUAL SURVEYS RELATING TO HULL, MACHINERY AND EQUIPMENT REFERRED TO IN SECTION 2.1 OF THIS CERTIFICATE

THIS IS TO CERTIFY that, at a survey required by 1.6 of the Code, the ship was found to comply with the relevant requirements of the Code.

Annual Survey: Signed: [redacted]
(Surveyor, American Bureau of Shipping)
Place: Songkhla, Thailand
Date: 11-May-2022

Annual Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

Annual Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

Annual Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

ENDORSEMENT FOR ANNUAL AND PERIODICAL SURVEYS RELATING TO LIFE-SAVING EQUIPMENT AND OTHER EQUIPMENT REFERRED TO IN SECTIONS 2.2, 2.3, 2.4, 2.6, 2.7, 2.8 AND 2.9 OF THIS CERTIFICATE

THIS IS TO CERTIFY that, at a survey required by 1.6 of the Code, the ship was found to comply with the relevant requirements of the Code.

Annual Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

Annual / Periodical[3] Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

Annual / Periodical[3] Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

Annual Survey: Signed: _____
(Surveyor, American Bureau of Shipping)
Place: _____
Date: _____

3 Delete as appropriate

Certificate No.: [redacted]

ENDORSEMENT FOR PERIODICAL SURVEYS RELATING TO RADIO INSTALLATIONS REFERRED TO IN SECTION 2.5 OF THIS CERTIFICATE

THIS IS TO CERTIFY that, at a survey required by 1.6 of the Code, the ship was found to comply with the relevant requirements of the Code.

Periodical Survey:

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Periodical Survey:

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Periodical Survey:

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Periodical Survey:

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT FOR THE EXTENSION OF THE CERTIFICATE

The ship complies with the relevant provisions of the Code, and this certificate should, in accordance with 1.7.3, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Certificate No.: [redacted]

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(This Certificate shall be supplemented by a Record of Construction and Equipment)

Issued under the Provisions of the
International Convention for the Prevention of Pollution from Ships, 1973,
as modified by the Protocol of 1978 relating thereto and as amended,
(hereinafter referred to as "the Convention")
under the authority of the Government of

Kingdom of Thailand
(name of state)

by American Bureau of Shipping

Particulars of Ship

Name of Ship	Distinctive Number or Letters	Port of Registry
SC BONGKOT	HSB 6282	Bangkok
Gross Tonnage [1] a) According to footnote [2] ~~b) According to footnote [3]~~	Maximum Deadweight of Ship (metric tons) [4]	IMO Number
2332	-	9721516

Type of Ship[1]:
~~Oil Tanker~~
Ship other than an oil tanker with cargo tanks coming under Regulation 2(2) of Annex I of the Convention
~~Ship other than any of the above~~

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with Regulation 6 of Annex I of the Convention;
2. That the survey shows that the structure, equipment, systems, fittings, arrangement and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This Certificate is valid only when Supplement Form B issued at Songkhla, Thailand on 10 August 2021 is attached.

This certificate is valid until **13 May 2026** [5] subject to surveys in accordance with Regulation 6 of Annex I of the Convention.

Completion date of the survey on which this certificate is based: **21 May 2021**

Issued at Songkhla, Thailand on 10 August 2021
(Place of Issue of Certificate) [redacted] *(Date of Issue)*

ABS

[redacted]
Surveyor, American Bureau of Shipping

1 Delete as appropriate
2 The above gross tonnage has been determined in accordance with the International Convention on Tonnage Measurement of Ships, 1969.
3 The above gross tonnage has been determined by the authorities of the Administration in accordance with the national tonnage rules which were in force prior to the coming into force for existing ships of the International Convention on Tonnage Measurement of Ships, 1969.
4 For oil tankers.
5 Insert the date of expiry as specified by the Administration in accordance with regulation 10.1 of Annex I of the Convention. The day and the month of date corresponds to the anniversary date as defined in regulation 1.27 of Annex I of the Convention, unless amended in accordance with regulation 10.8 of Annex I of the Convention.

Certificate No.: [redacted]

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by Regulation 6 of Annex I of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual Survey: Signed: [redacted]
(Surveyor, American Bureau of Shipping)
Place: Songkhla; Thailand
Date: 11-May-2022

Annual / Intermediate[1] Survey: Signed:
(Surveyor, American Bureau of Shipping)
Place:
Date:

Annual / Intermediate[1] Survey: Signed:
(Surveyor, American Bureau of Shipping)
Place:
Date:

Annual Survey: Signed:
(Surveyor, American Bureau of Shipping)
Place:
Date:

ABS

1 Delete as appropriate

เรือสำรวจสุนุง-2.2.2 International Oil Pollution Prevention Certificate

ANNUAL / INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 10.8.3

THIS IS TO CERTIFY that, at an annual / intermediate[1] survey in accordance with Regulation 10.8.3 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention.

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 10.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.3 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 10.4 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.4 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 10.5 OR 10.6 [1] APPLIES

This Certificate shall, in accordance with regulation 10.5 /10.6 [1] of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

1 Delete as appropriate

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Safety Data Sheet

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

RANDO HDZ 15

Product Number(s): 024497

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified Uses: Hydraulic Oil

1.3 Details of the supplier of the safety data sheet
Chevron Products UK Limited
1 Westferry Circus
Canary Wharf
London E14 4HA
United Kingdom
email : eumsds@chevron.com

1.4 Emergency telephone number
Transportation Emergency Response
Europe: 0044/(0)18 65 407333
Health Emergency
Europe: 0044/(0)18 65 407333
Product Information
FAX number: 0044/20 77 19 5171

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
DSD/DPD CLASSIFICATION: Not classified as dangerous according to EU regulatory guidelines.

2.2 Label elements
Under the criteria of Directive 1999/45/EC (dangerous preparations):
Not classified

2.3 Other hazards Not applicable.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Mixtures
This material is a mixture.

COMPONENTS	EC NUMBER	SYMBOL / RISK PHRASES	AMOUNT
Hindered alkylphenol	Confidential	Xi/R38, N/R50/53	< 1 %weight
Highly refined mineral oil (C15 - C50)	*	None	60 - 100 %weight

*Contains one or more of the following EINECS numbers: 265-090-8, 265-091-3, 265-096-0, 265-097-6, 265-098-1, 265-101-6, 265-155-0, 265-156-6, 265-157-1, 265-158-7, 265-159-2, 265-160-8, 265-161-3, 265-166-0, 265-169-7, 265-176-5, 276-735-8, 276-736-3, 276-737-9, 276-738-4, 278-012-2. The full text of all R-phrases is shown in Section 16.

COMPONENTS	CAS NUMBER	EC NUMBER	REGISTRATION NUMBER	CLP CLASSIFICATION	AMOUNT
Hindered alkylphenol	Trade secret	Confidential	**	Aquatic Acute 1/H400; Aquatic Chronic 1/H410; Skin Irrit. 2/H315	< 1 %weight
Highly refined mineral oil (C15 - C50)	Mixture	*	**	Asp. Tox. 1/H304	60 - 100 %weight

The full text of all CLP H-statements is shown in Section 16.

*Contains one or more of the following EINECS numbers: 265-090-8, 265-091-3, 265-096-0, 265-097-6, 265-098-1, 265-101-6, 265-155-0, 265-156-6, 265-157-1, 265-158-7, 265-159-2, 265-160-8, 265-161-3, 265-166-0, 265-169-7, 265-176-5, 276-735-8, 276-736-3, 276-737-9, 276-738-4, 278-012-2.
**Not available or substance is not currently required for registration under REACH.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures
Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

4.2 Most important symptoms and effects, both acute and delayed
IMMEDIATE SYMPTOMS AND HEALTH EFFECTS
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to be harmful. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Ingestion: Not expected to be harmful if swallowed.
Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at

เอกสารนี้เป็นเอกสารข้อมูลความปลอดภัยของผลิตภัณฑ์ 2.3 ข้อต่อไปนี้

airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS: Not classified.

4.3 Indication of any immediate medical attention and special treatment needed
Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

5.1 Extinguishing media
Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

5.2 Special hazards arising from the substance or mixture
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

5.3 Advice for firefighters
This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Eliminate all sources of ignition in vicinity of spilled material. Refer to Sections 5 and 8 for more information.

6.2 Environmental precautions
Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

6.3 Methods and material for containment and cleaning up
Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil and dispose of in a manner consistent with applicable requirements. Place other contaminated materials in disposable containers and dispose of in a manner consistent with applicable requirements. Report spills to local authorities as appropriate or required.

6.4 Reference to other sections
See sections 8 and 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not taste or swallow.

7.2 Conditions for safe storage, including any incompatibilities
General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an

electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

7.3 Specific end use(s): Hydraulic Oil

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

8.1 Control parameters
No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

8.2 Exposure controls
ENGINEERING CONTROLS:
Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT
Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.
Respiratory Protection: No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

ENVIRONMENTAL EXPOSURE CONTROLS:
See relevant Community environmental protection legislation or the Annex, as applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

9.1 Information on basic physical and chemical properties
Appearance
Color: Colorless to yellow
Physical State: Liquid
Odor: Hydrocarbon odor

Odor Threshold: No data available
pH: Not Applicable
Melting Point: No data available
Initial Boiling Point: >315°C (599°F)
Flashpoint: (Cleveland Open Cup) 145 °C (293 °F) Minimum
Evaporation Rate: No data available
Flammability (solid, gas): No Data Available
Flammability (Explosive) Limits (% by volume in air):
Lower: Not Applicable Upper: Not Applicable
Vapor Pressure: <0.01 mmHg @ 37.8 °C (100 °F)
Vapor Density (Air = 1): >1
Density: 0.855 kg/l @ 15°C (59°F) (Typical)
Solubility: Soluble in hydrocarbons; insoluble in water
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No Data Available
Viscosity: 14.25mm2/s - 15.75 mm2/s @ 40°C (104°F)
Explosive Properties: No Data Available
Oxidising properties: No Data Available
9.2 Other Information: No Data Available

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity: This material is not expected to react.
10.2 Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.
10.4 Conditions to Avoid: Not applicable
10.5 Incompatible materials to avoid: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
10.6 Hazardous decomposition products: None known (None expected)

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Serious Eye Damage/Irritation: The eye irritation hazard is based on evaluation of data for product components.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for product components.

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.
Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.
Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:
In accordance with the Directive 94/69/EC (21st ATP to DSD), Nota L, reference IP 346/92: "DMSO Extraction Method", we have determined that the base oils used in this preparation are not carcinogenic.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity
This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

12.2 Persistence and degradability
This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

12.3 Bioaccumulative potential
Bioconcentration Factor: No Data Available
Octanol/Water Partition Coefficient: No data available

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
This product is not, or does not contain, a substance that is a potential PBT or a vPvB.

12.6 Other adverse effects
No other adverse effects identified.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.
In accordance with European Waste Catalogue (E.W.C.) the codification is the following: 13 01 10

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

ADR/RID

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT
14.1 UN number: Not applicable
14.2 UN proper shipping name: Not applicable

14.3 Transport hazard class(es): Not applicable
14.4 Packing group: Not applicable
14.5 Environmental hazards: Not applicable
14.6 Special precautions for user: Not applicable

ICAO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT
14.1 UN number: Not applicable
14.2 UN proper shipping name: Not applicable
14.3 Transport hazard class(es): Not applicable
14.4 Packing group: Not applicable
14.5 Environmental hazards: Not applicable
14.6 Special precautions for user: Not applicable

IMO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT
14.1 UN number: Not applicable
14.2 UN proper shipping name: Not applicable
14.3 Transport hazard class(es): Not applicable
14.4 Packing group: Not applicable
14.5 Environmental hazards: Not applicable
14.6 Special precautions for user: Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REGULATORY LISTS SEARCHED:
01=EU. Directive 76/769/EEC: Restrictions on the marketing and use of certain dangerous substances.
02=EU Directive 90/394/EEC: Carcinogens at work.
03=EU Directive 92/85/EEC: Pregnant or breastfeeding workers.
04=EU Directive 96/82/EC (Seveso II): Article 9.
05=EU Directive 96/82/EC (Seveso II): Articles 6 and 7.
06=EU Directive 98/24/EC: Chemical agents at work.
07=EU Directive 2004/37/EC: On the protection of workers.
08=EU Regulation EC No. 689/2008: Annex 1, Part 1.
09=EU Regulation EC No. 689/2008: Annex 1, Part 2.
10=EU Regulation EC No. 689/2008: Annex 1, Part 3.
11=EU Regulation EC No. 850/2004: Prohibiting and restricting persistant organic pollutants (POPs).
12=EU REACH, Annex XVII: Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixture & article.
13=EU REACH, Annex XIV: Candidate List of Substances of Very High Concern for Authorization (SVHC).

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:
All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

15.2 Chemical safety assessment

No chemical safety assessment.

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: This is a new Material Safety Data Sheet.
Revision Date: DECEMBER 30, 2010

Full text of R-phrases:
R38; Irritating to skin.
R50/53; Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of CLP H-statements:
H304; May be fatal if swallowed and enters airways
H400; Very toxic to aquatic life
H410; Very toxic to aquatic life with long lasting effects
H315; Causes skin irritation

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
CVX - Chevron	CAS - Chemical Abstract Service Number
NQ - Not Quantifiable	

Prepared according to the criteria of EU Regulation 1907/2006 by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

No Annex

1. Product Name: Rust Remover

Product Code: Formula 1132

General Description: Acid based rust and scale remover

2. COMPOSITION / INFORMATION OF INGREDIENT

Material	%	Risk Phrase	QEL (ST)	QEL (LT)
Hydrochloric acid	<15-30	R37 Corrosive and Irritating to respiratory system	5 ppm	-
Methyl phosphoric acid ester	<10-20	R34 Causes burns	-	-
Other ingredient	<1-5	-	-	-

Risk phrases in this section apply only to raw material, not necessarily finished product. See 15 regulatory information.

3. HAZARDS IDENTIFCATION

Corrosive to skin and eyes. – irritating to respiratory system.

4. FIRST AID MEASURES

	HAZARD	FIRST AID
Skin:	irritation and stinging to skin	Remove all contaminated clothing. Wash under running water for 10 minutes. Apply emollient cream.
Eyes:	Pain and reddening which can lead to corneal burns.	Speed is essential. Immediately gently irrigate with clean water for at least 10 to 15 minutes. seek medical attention immediately
Ingestion:	Soreness in throat, severe stomach upset.	Rinse mouth out with water. Give a pint of milk or water to drink. Seek medical attention immediately
Inhalation:	Irritation of mucous membranes.	Remove affected person to fresh air, keep warm and still. Seek medical attention if symptoms persists.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Non-flammable

Special Protective Equipment: Wear breathing apparatus

Exposure Hazards: Fume of hydrogen chloride and phosphorus oxides evolved on exposure to very high temperatures.

6. ACCIDENTAL RELEASE MEASURES

Do not allow entry into drain, sewers and water courses. Mop up with absorbent material such as sand or earth. Scrap or Shovel up and transfer to suitable container. Clean up affected area with plenty of water. Prevent slip hazard. See 'Disposal Consideration'.

7. HANDLING AND STORAGE

Store in a cool, dry area in original container. Keep away from bleach and strong alkalis. Keep out of reach of children.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

WEL= Workplace Exposure Limits

PROTECTIVE EQUIPMENT:-

Engineering Measures: Provide sufficient ventilation during operations which cause vapour formation

Hands Protection: Use suitable protective gloves if risk of skin contact.

Eyes Protection: Wear approved safety goggle.

Other Protection: Wear appropriate clothing, respiratory to prevent any possibility of inhalation.

Hygiene Measures: Make eyes wash & showering accessible, wash at the end of each work shift and before eating, smoking using the toilet.

(PTO)

9. PHYSICAL PROPERTIES

Appearance	-	Clear liquid
Odour	-	Pungent
PH (5% solution)	-	> 1
Flash point	-	Not applicable
Flammability	-	Non-flammable
Autoflammability	-	Not applicable
Relative density	-	1.1 at 20°C
Vapour density	-	1.150
Solubility	-	Complete soluble in water.

10. STABILITY AND REACTIVITY

Keep away from strong oxidising agent and bleach. **React with materials:** Avoid use of mild steel. Cast iron, tin, brass, aluminium and other alloys and galvanised metals, contact with these metals can produce hydrogen gas.

11. TOXICOLOGICAL INFORMATION

For the hydrochloric acid, inhale (hmn) LCLo : 3000ppm / 5 min - orl (rbt) LD_{50} : 900 mg/kg

For the methyl phosphoric acid ester , orl (rat) LD_{50} : 2000 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity rating for methyl-phosphoric acid TLm 96:1000 – 100 ppm

13. DISPOSAL CONSIDERATION

Recycle used containers if facilities are available, if not incineration is recommended. Failing this, use landfill. Be sure to comply with local authority regulation.

14. TRANSPORT INFORMATION

UN Number	-	1789
ICAO-Air	-	Class 8. Packaging group III
IMO Sea	-	Class 8. Packaging group III
ADR Road	-	Class 8 item 66° (a)
Proper Shipping Name	-	Corrosive liquid, N.O.S. (Hydrochloric acid solution)

15. REGULATORY INFORMATION

Supply classification: Corrosive

Hazard pictogram:

Corrosive

Risk phrases:	R34	Cause burns
	R37	irritating to respiratory system
Safety phrases:	S23	Do not breathe vapour/spray
	S24/25	Avoid contact with skin and eye
	S26	in case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S28	After contact with skin, wash immediately with plenty of water
	S/37/39	Wear suitable gloves and eye/face protection

16. OTHER INFORMATION

Data from the following sources have been used to compile this document.
HSE – EH40/93; Occupational exposure limits; Suppliers Health and Safety Data.
SHE – EH29/93: Occupational skin diseases; Health and Safety Precaution.
HSC – Safety Data Sheets for substances and preparation dangerous for supply.

Date of issue 28.08.2008 Revision : 4

NOTE:

The information presented is accurate to the best of our knowledge. Since any applications and conditions of use are outside of our control, all recommendations and suggestions must be made without guarantee.

United Resources Mktg. Svc P/L disclaims any liability incurred in connection with the use of these data or suggestions. In addition, nothing contained herein shall be construed as a recommendation to use any products in conflict with existing patents covering any materials of its use.

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BS EN ISO 9001 : 2000

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ReAgent

WATER, DISTILLED MSDS

According to Regulation (EC) No 1907/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	WATER, DISTILLED
CAS-No.	7732-18-5
EC No.	231-791-2
SUPPLIER	Reagent Chemical Services 18 Aston Fields Road Whitehouse Industrial Estate Runcorn Cheshire WA7 3DL T: 01928 716903 F: 01928 716425 E: info@reagent.co.uk
PRODUCT NO.	2654
EMERGENCY TELEPHONE	Emergency Telephone : +44 (0) 1928 716903 Between 08.30 - 17.00

2 HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

EC No.	231-791-2
CAS-No.	7732-18-5

COMPOSITION COMMENTS

The product is classified as non-hazardous and does not require a safety data sheet under current legislation.

4 FIRST-AID MEASURES

GENERAL INFORMATION

Not applicable

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

This product is not flammable. Not applicable

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Not applicable

7 HANDLING AND STORAGE

STORAGE PRECAUTIONS

Store in closed original container at temperatures between 15°C and 25°C. Store away from heat, direct sunlight and moisture.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

The substance is pure water and completely non-hazardous to human health during normal use, providing it has not been contaminated with other hazardous materials.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Colourless

ODOUR	Odourless		
BOILING POINT (°C)	100 760 mm Hg	MELTING POINT (°C)	0
RELATIVE DENSITY	Approx. 1.00 @ 20	pH-VALUE, CONC. SOLUTION	Approx. 7

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid exposure to high temperatures or direct sunlight. Avoid frost.

11 TOXICOLOGICAL INFORMATION

GENERAL INFORMATION

No specific health warnings noted.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Not applicable

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Not applicable

14 TRANSPORT INFORMATION

GENERAL	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). No transport warning sign required.

15 REGULATORY INFORMATION

RISK PHRASES	NC	Not classified.
SAFETY PHRASES	NC	Not classified.

16 OTHER INFORMATION

GENERAL INFORMATION

The product is not classified and does not require a safety data sheet. The information contained herein is only for advice to the user.
Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS).

REVISION COMMENTS

This is first issue.

REVISION DATE	26/01/2010
REV. NO./REPL. SDS GENERATED	1
SDS NO.	11558

SHIPBOARD FIRE DRILL REPORT

Instruction:

1. *When a training drill has been completed, an evaluation of the drill must be duly signed by the Master.*
2. *The Questions listed should be answered 'Yes" or "No". If any of the answers are "No" the reason why must be included in the Comments.*
3. *The names of the crew members that did not participate in the drill must be included.*
4. *Fire Alarm:* [redacted] *, continuous ringing + verbal (pa system)* ***Ref:*** *Appendix 7.4 : Emergency Alarm*

Vessel name	Date	Time	Place/Location
SC Bongkot	12-Jan-2023	From 1100 To 1130	Bongkot south field

1.	Assumed location of fire (บริเวณที่สมมุติว่าเกิดเพลิงไหม้): **Fire in Engine Room**
2.	Time preparing from start drill signal until ready at position as per Muster list (รายงานเวลาตั้งแต่ได้ยินเสียงสัญญาณจนถึงเวลาพร้อม ณ. จุดรวมพล): **3** Minute (นาที)
3.	Communication Equipment (อุปกรณ์การสื่อสารที่ใช้): **UHF**, CH.(ช่องความถี่): **06** Condition (สภาพของอุปกรณ์สื่อสาร): **Good**
4.	Number of crew members partaking in drill (จำนวนลูกเรือที่ร่วมในการฝึก): **16** Person (คน)

4. Drill Details

Time (เวลา)	Drill Details (รายละเอียดการฝึก (พร้อมรูปภาพประกอบ))
1101	-General alarm follow by announcement thru PA system that smoke was detected the **Fire in ECR**, crew assembled immediately to the Muster Station with Fire Fighting Equipment's on hand. Briefed crew about the scenario.
1104	-Team "2" proceeded to the scene and started combating fire, Team "1" established boundary cooling, Team "3" closed fire flaps/dampers to the affected area & stand-by with medical equipment's on hand ready to use. Engine dept. stopped blower, fan, aircon & air shaft. Isolate power supply to the affected area and adjacent sides.
1107	-Massages prepared and sent to all paries concerned
1111	-Chief officer explained and demonstrated how to operate Portable fire extinguisher, fire blanket and how to closed fire damper and fire flap of Laundry.
1124	-Fire under control, Fire Fighting Team stand-by/monitor for possible re-ignition
1127	-All cleared, Fire fighting equipment's secured in place.
1130	-Drill ended with satisfactory results. All crew participated as per SOLAS regulations

5. Condition Checklist (รายการตรวจสอบสภาพต่างๆขณะทำการฝึก)

Checked List (รายการตรวจสอบ)	Condition (สภาพ)	Remark (หมายเหตุ)
Condition of watertight doors, starting how employed (สภาพของประตูผนึกน้ำ)	Good	Time conducted for closing (เวลาที่ใช้ในการปิด): 0.5 Minute (นาที)
Condition of fire doors (สภาพของประตูกันไฟ)	Good	Time conducted for closing (เวลาที่ใช้ในการปิด): 0.5 Minute (นาที)
Condition of fire dampers (สภาพของลิ้นช่องระบายอากาศ)	Good	Time conducted for closing (เวลาที่ใช้ในการปิด): 0.5 Minute (นาที)
Condition of Fire-Hoses and Nozzles (สภาพของสายน้ำดับเพลิงและหัวฉีด)	Good	
Condition of Fire pump and/or sprinkler pumps (สภาพของปั๊มน้ำดับเพลิง)	Good	Time start (เริ่มปั๊ม): 11:20 Minute (นาที) Time Stop (หยุดปั๊ม): 11:25 Minute (นาที)
Condition of test run (สภาพขณะทดลองเดินปั๊ม)	Good	

SHIPBOARD FIRE DRILL REPORT

Condition of sand and Fire-buckets (ทรายดับเพลิง และกระป๋องตักทราย)	Good	
Condition of various types Fire-Extinguishers (สภาพอุปกรณ์ดับเพลิง)	Good	
Fireman Suites (สภาพของชุดผจญเพลิง)	Good	
Condition of BA Set (สภาพของชุด BA Set)	Good	Pressure (กำลังดัน): 195 Bar
Condition of wearing equipment (สภาพการสวมใส่อุปกรณ์)	Good	
F.O. Tanks Shut-Off valves (สภาพการทำงานของ)	Good	
Ventilation Fan Emergency stop (สภาพการทำงานของ)	Good	

6. Fire Checklist (รายการตรวจสอบเมื่อเกิดเหตุเพลิงไหม้)

A. **Initial Actions** (สิ่งที่ปฏิบัติก่อนอื่น)	
☒	1. Sound alarm, muster fire party (ส่งสัญญาณเตือนภัยและรวมพล)
☒	2. Starting of a fix pump, using at least the two jets of water to show (สตาร์ทเครื่องดับไฟฉุกเฉินและเปิดใช้สายดับเพลิงอย่างน้อย 2 สาย)
☒	3. Checking of fireman' s outfit and other personal rescue equipment (ตรวจเช็คชุดผจญเพลิงและอุปกรณ์ช่วยเหลืออื่น)
☒	4. Checking of relevant communication equipment (ตรวจเช็คอุปกรณ์สื่อสารต่างๆ)
☒	5. Checking in operation of water ours, fire doors, fire dampers and main inlet and outlet of ventilation systems in the drill area (ตรวจเช็คประตูกันน้ำ ประตูกันไฟ ที่กระดุกปิดที่ระบายอากาศในบริเวณที่เกิดเหตุ)
☒	6. Checking the necessary arrangements for subsequent abandoning of the ship (ตรวจเช็คอุปกรณ์หรือของจำเป็นที่ใช้ในการสละเรือ)

B. **Initial Report (To company) Format** (รายงานเบื้องต้น (ถึงบริษัท))		
☒	Incident (สภาพเหตุการณ์)	Fire in Galley
☒	Date and time when the accident occurred (วัน เวลา เมื่อเกิดอุบัติเหตุ)	12-Jan-23 / 1100 Hrs.
☒	Position where incident occurred (ตำแหน่งที่เรือขณะเกิดอุบัติเหตุ)	Lat. 07 – 43.3 N / Long. 102 – 30.2 E
☒	Location where the fire broke out (บริเวณที่เกิดเพลิงไหม้)	G/E no.3
☐	In case the fire broke out in a cargo hold, the kind and quantity of cargoes in the cargo hold (ในกรณีที่เกิดเพลิงไหม้ในระวางสินค้าให้แจ้งชนิดและปริมาณสินค้าในระวาง)	N/A
☐	Description, and quantity of cargoes stowed in the adjacent cargo holds/tanks (รายละเอียดและปริมาณสินค้าที่อยู่ในระวางหรือถังที่ติดออกไป)	N/A
☐	Description, and quantity and location of dangerous goods (รายละเอียด ปริมาณและสถานที่เก็บสินค้าอันตราย)	N/A
☒	Weather, wind direction and its force (สภาพอากาศ ทิศทางลม และกำลังลม)	Mod sea / ENE force 3
☒	Present condition of fire (ความรุนแรงของเพลิงขณะนั้น)	Under controlled
☒	Measure for extinguishing the fire and it's protect (มาตรการดับเพลิงและความเป็นไปได้ที่จะดับเพลิงนั้น)	Portable Fire Extinguisher, Fixed CO2 system
☒	Emergency measures for the human life and the cargo (มาตรการฉุกเฉินเพื่อป้องกันชีวิตและสินค้า)	If fire uncontrolled then proceed to abandon ship station.
☒	Loss of life / injury, if any, their ranks and names with condition (ความสูญเสียของชีวิต หรือบาดเจ็บ (ถ้ามี) ตำแหน่งและชื่อ)	Nil
☒	Damage to hull and engine (ความเสียหายของตัวเรือหรือเครื่องจักรกล)	Nil
☒	Damage to cargo (ความเสียหายของสินค้า)	N/A
☒	Others (อื่นๆ)	Nil

7. FFE Checklist (รายละเอียดอุปกรณ์ที่แนะนำวิธีใช้)

Train all item within 2 months (ฝึกให้ครบทุกอย่างภายใน 2 เดือน)

เอกสารนี้เป็นเอกสารภายในการจัดการความปลอดภัยและสิ่งแวดล้อม ห้ามนำออกภายนอกโดยไม่ได้รับอนุญาต

SC GROUP	Date : 01/02/2021	Revision : 5	Ref : F-11-QAS/05
	SHIPBOARD FIRE DRILL REPORT		

☒	Fireman's outfit and breathing apparatus	☒	Fire hose & nozzle
☒	Emergency escape breathing device (EEBD)	☒	Fixed fire detector
☒	Fixed fire extinguisher system-Foam, CO2 or Halon	☒	Emergency main engine stop
☒	Personal oxygen and hydrocarbon analyser	☒	Portable fire extinguishers
☒	Intonation ship / shore connection	☐	
☒	Emergency ventilation stop	☐	
☒	Oxygen resuscitator	☐	
☒	Emergency fire pump	☐	
☒	Fire main pump (GS)	☐	

8. Evaluation (ประเมินผลการฝึก)

Pls. mark Yes	No	Result of drill	Reason (if answer 'No')
☒	☐	1.Did all Personnel Muster correctly and all Stations Report to the Bridge? (คนประจำเรือได้ประจำสถานีอย่างถูกต้อง และแต่ละฝ่ายได้รายงานไปยังสะพานเดินเรือใช่หรือไม่?)	
☒	☐	2.Was Mustering completed in a satisfactory time? (เวลาที่ใช้ในการรวมพลเป็นที่น่าพอใจหรือไม่?)	
☒	☐	3.Was all required equipment ready for use and found in working order? (สภาพอุปกรณ์ พร้อมใช้งานหรือไม่?)	
☒	☐	4.Were all personnel found to be fully familiar with the equipment used? (ความคุ้นเคยในการใช้อุปกรณ์ ?)	
☒	☐	5. Were all communication between emergency parties and the bridge satisfactory? (การสื่อสารระหว่างการฝึกเป็นที่พอใจหรือไม่?)	
☒	☐	6. Did personnel follow procedure satisfactory? (คนประจำเรือปฏิบัติตามคู่มือการปฏิบัติอย่างน่าพอใจ หรือไม่?)	

Overall comment/evaluation after drill (ข้อคิดเห็นภาพรวม / การประเมินผลหลังฝึกซ้อม)

- Over all satisfactory.

Note: In case of serious deficiencies or equipment failure, the master should be notified immediately via this report.
ในกรณีที่พบข้อบกพร่องที่สำคัญ หรืออุปกรณ์ไม่อยู่ในสภาพที่ใช้งานได้ นายเรือควรแจ้งหรือระบุผ่านรายงานการฝึก เพื่อให้ทางบริษัทฯ ได้รับทราบทันที

9. Name of did not participate (รายชื่อผู้ที่ไม่ได้ร่วมฝึกซ้อม)

No.	Name (รายชื่อ)	Rank (ตำแหน่ง)
1.	Nil	
2.		
3.		

Signed by Master

M.V SC BONGKOT

[redacted]

Name: [redacted]

SC GROUP	Date : 01/07/2022	Revision : 7	Ref : F-11-QAS/08
	SHIPBOARD DRILL REPORT		

Instruction:

1. *When a training drill has been completed, an evaluation of the drill must be duly signed by the Master.*
2. *The Questions listed should be answered 'Yes" or "No". If any of the answers are "No" the reason why must be included in the Comments.*
3. *The names of the crew members that did not participate in the drill must be included.*
4. *General Alarm: ●●●●●●● [redacted], 7 SHORT,1 LONG+VERBAL(PA System) Ref: Appendix 7.4: Emergency Alarm*
5. *MOB Alarm: [redacted], 3 LONG RINGS + VERBAL (PA System) Ref: Appendix 7.4: Emergency Alarm*

Additional Precaution:

6. *The personal shall not be placed in lifeboat, rescue boats or liferafts during drill while there are being raised or lowered*

Vessel name	Date	Time	Place/Location
SC Bongkot	14-Jan-2023	From 1700 Hrs To 1720 Hrs	Bongkot south field

Drill Subject

☒	Oil Spill	☐	Collision	☐	Personal's Injury, Sickness or Fatality
☐	NLS (Chemical) Spill	☐	Grounding / Standing	☐	Helicopter Operation
☐	Generator Failure (Black out)	☐	Flooding	☐	Media Response
☐	Bridge Control Failure	☐	Heavy Weather	☐	Main Engine Failure
☐	Gyro Compass Failure	☐	Emergency Breakaway from Berth	☐	Gas or Toxic Vapour Release
☐	Steering Gear Failure	☐	Salvage	☐	Emergency Towing (Release / Apart)
☐	Fire Fighting System (FiFi) Failure	☐	Rescue from Enclosed Space	☐	Man Overboard and Search & Rescue
☐	DP Failure	☐	Stop Work Authority (SWA)	☐	Crewboat - Passenger Evacuation
☐	Typhoon Evacuation	☐	Anchor Handling System Failure		
☐	Emergency Towing Release	☐	Other ……		

1.	Assumed location (บริเวณที่สมมุติเหตุการณ์):	Main-deck Stbd side manifold
2.	Time preparing from start drill signal until ready at position as per Muster list (รายงานเวลาตั้งแต่ได้ยินเสียงสัญญาณจนถึงเวลาพร้อม ณ. จุดรวมพล):	3 Minute (นาที)
3.	Communication Equipment (อุปกรณ์การสื่อสารที่ใช้):	UHF , CH. (ช่องความถี่): 06
	Condition (สภาพของอุปกรณ์สื่อสาร):	Good
4.	Number of crew members partaking in drill (จำนวนลูกเรือที่ร่วมในการฝึก):	16 Person (คน)

5.Drill Details

Time (เวลา)	Drill Details (รายละเอียดการฝึก (พร้อมรูปภาพประกอบ))
1700	This is a drill "Oil Spill Drill"
1702	- Assumed situation as oil spillage on main deck while transfer MGO between tank. - Duty AB immediately informed to Engine room to stop pump by emergency stop on main deck and minimized the escape of oil overboard, then inform duty officer
1705	- Duty officer raised alarm follow by announcement and informed master.
1708	- All crew proceed to muster station on main deck. All head count and duties checked.
1710	- Emergency team clean up oil spillage on main deck by SOPEP equipment. And checked around the vessel for prevent oil pollution.
1715	- Emergency team informed to Master, the oil under control approximate spilt about 15 litters.
1716	- Demonstrated SOPEP equipment's to all crew.
1720	- Finished with the drill. Terminated Drill.

6. Evaluation (ประเมินการฝึก)

Pls. mark Yes	Pls. mark No		Result of drill	Reason (if answer 'No')
☒	☐	1	Did all Personnel Muster correctly and all Stations Report to the Bridge? คนประจำเรือได้ประจำสถานีอย่างถูกต้อง และแต่ละฝ่ายได้รายงานไปยังสะพานเดินเรือใช่หรือไม่?	
☒	☐	2	Was Mustering completed in a satisfactory time? เวลาที่ใช้ในการรวมพลเป็นที่น่าพอใจหรือไม่?	
☒	☐	3	Was all required equipment ready for use and found in working order? สภาพอุปกรณ์พร้อมใช้งานหรือไม่?	
☒	☐	4	Were all personnel found to be fully familiar with the equipment used? ความคุ้นเคยในการใช้อุปกรณ์ ?	
☒	☐	5	Were all communication between emergency parties and the bridge satisfactory? การสื่อสารระหว่างการฝึกเป็นที่พอใจหรือไม่?	
☒	☐	6	Did personnel follow procedure satisfactory? คนประจำเรือปฏิบัติตามคู่มือการปฏิบัติอย่างน่าพอใจหรือไม่?	

Overall comment/evaluation after drill (ข้อคิดเห็นภาพรวม / การประเมินผลหลังฝึกซ้อม)

Note: In case of serious deficiencies or equipment failure, the master should be notified immediately via this report.
ในกรณีที่พบข้อบกพร่องที่สำคัญ หรืออุปกรณ์ไม่อยู่ในสภาพที่ใช้งานได้ นายเรือควรแจ้งหรือระบุผ่านรายงานการฝึก เพื่อให้ทางบริษัทฯ ได้รับทราบทันที

7. Name of did not participate (รายชื่อผู้ที่ไม่ได้ร่วมฝึกซ้อม)

No.	Name (รายชื่อ)	Rank (ตำแหน่ง)
1.	Nil	
2.		
3.		

Signed by Master

[redacted]

Name: [redacted]

Instruction:

1. *When a training drill has been completed, an evaluation of the drill must be duly signed by the Master.*
2. *The Questions listed should be answered 'Yes" or "No". If any of the answers are "No" the reason why must be included in the Comments.*
3. *The names of the crew members that did not participate in the drill must be included.*
4. *General Alarm: [redacted], 7 SHORT,1 LONG+VERBAL(PA System) Ref: Appendix 7.4: Emergency Alarm*
5. *MOB Alarm: [redacted], 3 LONG RINGS + VERBAL (PA System) Ref: Appendix 7.4: Emergency Alarm*

Additional Precaution:

6. *The personal shall not be placed in lifeboat, rescue boats or liferafts during drill while there are being raised or lowered*

Vessel name	Date	Time	Place/Location
SC Bongkot	14-Jan-2023	From 1720 Hrs To 1740 Hrs	Bongkot south field

Drill Subject

☐	Oil Spill	☐	Collision	☐	Personal's Injury, Sickness or Fatality
☒	NLS (Chemical) Spill	☐	Grounding / Standing	☐	Helicopter Operation
☐	Generator Failure (Black out)	☐	Flooding	☐	Media Response
☐	Bridge Control Failure	☐	Heavy Weather	☐	Main Engine Failure
☐	Gyro Compass Failure	☐	Emergency Breakaway from Berth	☐	Gas or Toxic Vapour Release
☐	Steering Gear Failure	☐	Salvage	☐	Emergency Towing (Release / Apart)
☐	Fire Fighting System (FiFi) Failure	☐	Rescue from Enclosed Space	☐	Man Overboard and Search & Rescue
☐	DP Failure	☐	Stop Work Authority (SWA)	☐	Crewboat - Passenger Evacuation
☐	Typhoon Evacuation	☐	Anchor Handling System Failure		
☐	Emergency Towing Release	☐	Other ……		

1.	Assumed location (บริเวณที่สมมุติเหตุการณ์):	Main-deck
2.	Time preparing from start drill signal until ready at position as per Muster list (รายงานเวลาตั้งแต่ได้ยินเสียงสัญญาณจนถึงเวลาพร้อม ณ. จุดรวมพล):	3 Minute (นาที)
3.	Communication Equipment (อุปกรณ์การสื่อสารที่ใช้):	UHF , CH. (ช่องความถี่): 06
	Condition (สภาพของอุปกรณ์สื่อสาร):	Good
4.	Number of crew members partaking in drill (จำนวนลูกเรือที่ร่วมในการฝึก):	15 Person (คน)

5.Drill Details

Time (เวลา)	Drill Details (รายละเอียดการฝึก (พร้อมรูปภาพประกอบ))
1720	**This is a drill "Noxious Liquids Substance Spill Drill"** General Emergency alarm sounded and followed by announcement on the PA System – "Noxious Liquids Substance Spill Drill".
1723	All crew mustered at Muster Station. Head count taken and informed situation.
1725	Crew were briefed on the scenario. While offloading chemical container it contact with another cargo on deck and the result some chemical spilled on deck. Duty AB immediately inform to crane operator to stop operation and inform to duty officer.
1726-1735	Master verbal order to all crew keeping clear from the spill area on deck and Chief officer check the manifest to find the type of chemical and how to handling with following MSDS information. Deck crew wearing chemical suit with full PPE and cleaning the chemical spilled on deck.
1738	Briefed to crew member if chemical spill on deck should immediately Inform Officer on watch and keep clear, Training to use chemical spill equipment
1739	Massages prepared and sent to all parties concerned
1740	**Terminated Drill.**

6. Evaluation (ประเมินการฝึก)

Pls. mark Yes	Pls. mark No		Result of drill	Reason (if answer 'No')
☒	☐	1	Did all Personnel Muster correctly and all Stations Report to the Bridge? คนประจำเรือได้ประจำสถานีอย่างถูกต้อง และแต่ละฝ่ายได้รายงานไปยังสะพานเดินเรือใช่หรือไม่?	
☒	☐	2	Was Mustering completed in a satisfactory time? เวลาที่ใช้ในการรวมพลเป็นที่น่าพอใจหรือไม่?	
☒	☐	3	Was all required equipment ready for use and found in working order? สภาพอุปกรณ์พร้อมใช้งานหรือไม่?	
☒	☐	4	Were all personnel found to be fully familiar with the equipment used? ความคุ้นเคยในการใช้อุปกรณ์ ?	
☒	☐	5	Were all communication between emergency parties and the bridge satisfactory? การสื่อสารระหว่างการฝึกเป็นที่พอใจหรือไม่?	
☒	☐	6	Did personnel follow procedure satisfactory? คนประจำเรือปฏิบัติตามคู่มือการปฏิบัติอย่างน่าพอใจหรือไม่?	

Overall comment/evaluation after drill (ข้อคิดเห็นภาพรวม / การประเมินผลหลังฝึกซ้อม)

Note: In case of serious deficiencies or equipment failure, the master should be notified immediately via this report.
ในกรณีที่พบข้อบกพร่องที่สำคัญ หรืออุปกรณ์ไม่อยู่ในสภาพที่ใช้งานได้ นายเรือควรแจ้งหรือระบุผ่านรายงานการฝึก เพื่อให้ทางบริษัทฯ ได้รับทราบทันที

7. Name of did not participate (รายชื่อผู้ที่ไม่ได้ร่วมฝึกซ้อม)

No.	Name (รายชื่อ)	Rank (ตำแหน่ง)
1.	Nil	
2.		
3.		

Signed by Master

M.V. SC BONGKOT

[redacted]

Name: [redacted]

SC GROUP	Date : 01/06/2016	Revision : 1	Ref : F-06-OPT/22
	FIRST AID KIT INVENTORY		

Vessel Name: .....SC BONGKOT..... **Year:** .....2023.....
Port of Registry:.....BANGKOK/ THAILAND.....Bridge

S.No	First Aid Kit Items	Quantity	Expiry Date	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
1	Wound Dressing	1	-	28	28	29	30								
2	Elastic Bandage 7.5 cm.	2	-	28	28	29	30								
3	Elastic Bandage 5 cm.	2	-	28	28	29	30								
4	Cotton Buds	1	-	28	28	29	30								
5	Triangular Bandage	3	-	28	28	29	30								
6	Plaster	60	05/08/2024	28	28	29	30								
7	Povidone-Iodine (Betadine)	1	12/10/2026	28	28	29	30								
8	Gauze Sponges	1		28	28	29	30								
9	Isopropyl Alcohol pad	6	05/09/2024	28	28	29	30								
10	Eye pad	-	-	28	28	29	30								
11	Dettol Antiseptic	-	-	28	28	29	30								
12	Forceps,Scissors	1,1	-	28	28	29	30								
13	Cotton Wool	1	01/07/2027	28	28	29	30								
14	Surgical Gloves	2	-	28	28	29	30								
15	Surgical Tape	2	-	28	28	29	30								
16	Wooden Splint	2	-	28	28	29	30								
17	Dressing	2	07/2024	28	28	29	30								
18	Pin brooch	10	-	28	28	29	30								
19	Eye wash solution	1	07/12/2024	28	28	29	30								
20	Normal Saline Solution 100 ml.	1	05/2026	28	28	29	30								

Date / Rank / Initial [redacted] / 2nd Officer [redacted]

เอกสารนี้เป็นเอกสารควบคุมคุณภาพของบริษัท เอสซี กรุ๊ป จำกัด

ภาคผนวกเรือสนับสนุน-3

เรือสนับสนุน SC Pailin

SC GROUP	Date : 01/01/2018	Revision : 00	Ref : F-04-TEC/06
	Planned Maintenance System		

Prepare by : Electrician Engineer — Date : 30-Apr-23

Inspected by : Chief Engineer — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : April 2023

Ship Name : SC PAILIN

ชื่อเรือ

Total running hrs.
Previous M. run. Hrs.
Run. Hrs. from prev. M.

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	Date (NEXT DUE)	Remark หมายเหตุ
		ELECTRICAL SYSTEM & O/H					
SV001-12-000	EE 1001	BOW THRUSTER MOTOR	3 YEARS	1/10/2023	-	1/9/2026	Dry dock
SV001-12-000	EE 1001	B/T VENT FAN MOTOR	2 YEARS	1/14/2023	-	1/13/2025	Dry dock
SV001-12-000	EE 1002	B/T S.W.COOLING MOTOR	2 YEARS	1/13/2023	-	1/12/2025	Dry dock
SV001-12-000	EE 1002	B/T HYD. MOTOR	2 YEARS	1/2/2023	-	1/1/2025	Dry dock
SV001-12-000	EE 1003	EMERGENCY FIRE PUMP MOTOR	2 YEARS	1/6/2023	-	1/5/2025	Dry dock
SV001-12-000	EE 1003	S.W. PRESSURE SET MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1004	F.W. PRESSURE SET MOTOR	3 YEARS	1/22/2023	-	1/21/2026	Dry dock
SV001-12-000	EE 1004	STANDBY PRESSURE SET MOTOR	2 YEARS	12/31/2022	-	12/30/2024	Dry dock
SV001-12-000	EE 1005	SEWAGE CUT/DISC.MOTOR	2 YEARS	12/30/2022	-	12/29/2024	
SV001-12-000	EE 1005	AIR COMP. MOTOR FOR SEWAGE	2 YEARS	12/31/2022	-	12/30/2024	
SV001-12-000	EE 1006	CALORIFIRE MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1006	PROVISION COMPRESSOR No.1	2 YEARS	1/30/2023	-	1/29/2025	Checked/Inspected
SV001-12-000	EE 1007	PROVISION COMPRESSOR No.2	3 YEARS	1/30/2023	-	1/29/2026	Checked/Inspected
SV001-12-000	EE 1007	AIR CONDITION No.1	2 YEARS	1/30/2023	-	1/29/2025	Checked/Inspected
SV001-12-000	EE 1008	AIR CONDITION No.2	2 YEARS	1/30/2023	-	1/29/2025	Checked/Inspected
SV001-12-000	EE 1008	AIR CONDITION BLOWER MOTOR	2 YEARS	1/30/2023	-	1/29/2025	Checked/Inspected
SV001-12-000	EE 1009	AIR COND. COOLING MOTOR No.1	2 YEARS	1/10/2023	-	1/9/2025	Dry dock
SV001-12-000	EE 1009	AIR COND. COOLING MOTOR No.2	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1010	WINDLESS MAIN MOTOR	2 YEARS	1/16/2023	-	1/15/2025	Dry dock
SV001-12-000	EE 1010	WINDLESS ST'BY MOTOR	2 YEARS	1/16/2023	-	1/15/2025	Dry dock
SV001-12-000	EE 1011	TOWING WINCH HYD. MOTOR No.1	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1011	TOWING WINCH HYD. MOTOR No.2	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1012	TOWING WINCH HYD. MOTOR No.3	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1012	TOWING WINCH PILOT MOTOR No.1	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1013	TOWING WINCH PILOT MOTOR No.2	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1013	TOWING WINCH COOLING MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1014	F.O. CARGO MOTOR	2 YEARS	1/16/2023	-	1/15/2025	Dry dock
SV001-12-000	EE 1014	F.O. TRANSFER MOTOR	2 YEARS	1/5/2023	-	1/4/2025	Dry dock
SV001-12-000	EE 1015	G.S/FIRE PUMP MOTOR	2 YEARS	1/8/2023	-	1/7/2025	Dry dock
SV001-12-000	EE 1015	BILGE/BALLAST MOTOR No.1	2 YEARS	1/9/2023	-	1/8/2025	Dry dock
SV001-12-000	EE 1016	BILGE/BALLAST MOTOR No.2	2 YEARS	1/9/2023	-	1/8/2025	Dry dock
SV001-12-000	EE 1016	DIRTY OIL MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1017	MUD PUMP MOTOR PORT	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1017	MUD PUMP MOTOR STBD	2 YEARS	1/11/2023	-	1/10/2025	Dry dock
SV001-12-000	EE 1018	PURIFIRE MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1018	O.W.S. MOTOR	2 YEARS	12/26/2022	-	12/25/2024	
SV001-12-000	EE 1019	ENG. ROOM BLOWER PORT	2 YEARS	1/11/2023	-	1/10/2025	Dry dock
SV001-12-000	EE 1019	ENG. ROOM BLOWER STBD	2 YEARS	1/12/2023	-	1/11/2025	Dry dock
SV001-12-000	EE 1020	CEMENT COMPRESSOR MOTOR PORT	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1020	CEMENT COMPRESSOR MOTOR STBD	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1021	CEMENT COOLING MOTOR PORT	2 YEARS	1/5/2023	-	1/4/2025	Dry dock
SV001-12-000	EE 1021	CEMENT COLLING MOTOR STBD	2 YEARS	1/22/2023	-	1/21/2025	Dry dock
SV001-12-000	EE 1022	F.W. PUMP MOTOR	2 YEARS	1/5/2023	-	1/4/2025	Dry dock
SV001-12-000	EE 1022	D.W. PUMP MOTOR	2 YEARS	1/5/2023	-	1/4/2025	Dry dock
SV001-12-000	EE 1023	CPP HYD. MOTOR PORT	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1023	CPP HYD. MOTOR STBD	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1024	STEERING GEAR HYD. MOTOR PORT No.1	2 YEARS	1/13/2023	-	1/12/2025	Dry dock
SV001-12-000	EE 1024	STEERING GEAR HYD. MOTOR PORT No.2	2 YEARS	1/13/2023	-	1/12/2025	Dry dock
SV001-12-000	EE 1025	STEERING GEAR HYD. MOTOR STBD No.1	2 YEARS	1/14/2023	-	1/13/2025	Dry dock
SV001-12-000	EE 1025	STEERING GEAR HYD. MOTOR STBD No.2	2 YEARS	1/14/2023	-	1/13/2025	Dry dock
SV001-12-000	EE 1026	TOWING PIN MOTOR	2 YEARS	1/17/2023	-	1/16/2025	Dry dock
SV001-12-000	EE 1026	B.A. COMPRESSOR MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1027	ALTERNATOR No.1	2 YEARS	1/19/2023	-	1/18/2025	Dry dock
SV001-12-000	EE 1027	ALTERNATOR No.2	2 YEARS	1/19/2023	-	1/18/2025	Dry dock
SV001-12-000	EE 1027	ALTERNATOR No.3	2 YEARS	1/11/2023	-	1/10/2025	Dry dock
SV001-12-000	EE 1027	EMERGENCY ALTERNATOR	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1028	CRANE MOTOR	2 YEARS	1/22/2023	-	1/21/2025	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / EMERGENCY 24 V BATTERY	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / GEN 1 ACB	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / GEN 2 ACB	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected

SC GROUP	Date : 01/01/2018	Revision : 00	Ref : F-04-TEC/06
	Planned Maintenance System		

Prepare by : Electrician Engineer — Date : 30-Apr-23

Inspected by : Chief Engineer — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : April 2023

Ship Name : SC PAILIN

ชื่อเรือ

Total running hrs.
Previous M. run. Hrs.
Run. Hrs. from prev. M.

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	Date (NEXT DUE)	Remark หมายเหตุ
SV001-12-000	EE 1029	MAIN SWITCHBOARD / GEN 3 ACB	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / EMERGENCY GEN ACB	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / EMERGENCY SWITCH BOARD	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / NAVIGATION SWITCH BOARD	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / AUX SWITCH BOARD	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / AUTO CONTROL SYSTEM	MONTHLY	4/29/2023	-	5/29/2023	Checked/Inspected
SV001-12-000	EE 1029	MAIN SWITCHBOARD / LIGHTING INSULATION	6 MONTHS	1/22/2023	-	7/21/2023	Dry dock
SV001-12-000	EE 1029	MAIN SWITCHBOARD / MEGGER TEST	6 MONTHS	1/22/2023	-	7/21/2023	Dry dock
SV001-12-000	EE 1030	INSPECT OR RENEW SOLINOID VALVE	2 YEARS	NA	-	NA	
SV001-12-000	EE 1030	INSPECT OR RENEW SOLINOID VALVE	2 YEARS	NA	-	NA	

เรือสนับสนุน-3.1 แผนการตรวจสอบและการซ่อมบำรุง

SC GROUP

Date : 01/01/2018 | Revision : 00 | Ref : F-04-TEC/06

Planned Maintenance System

Prepare by : Third Engineer — Date : 30-Apr-23

Inspected by : Chief Engineer — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : April 2023

Ship Name : SC PAILIN GENERATOR ENGINE NO.1 CATTERPILAR 3408

ชื่อเรือ

Total running hrs.	21489.2
Previous M. run. Hrs.	21210.1
Run. Hrs. from prev. M.	279.10

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		GENERATOR ENGINE NO.1 CATTERPILAR 3408					
SV001-02-001	GE 2001	GENERATOR - INSPECT	WEEKLY	4/25/2023	21,438.0		
SV001-02-001	GE 2002	GENERATOR BEARING TEMPERATURE - TEST/RECORD	WEEKLY	4/25/2023	21,438.0	-	
SV001-02-001	GE 2003	GENERTOR LEAD (FLAT BRAIDED CABLE) - CHECK	WEEKLY	4/25/2023	21,438.0	-	
SV001-02-001	GE 2004	ENGINE VALVE ROTATORS - INSPECT	250	4/18/2023	21,353.8	135.4	Last adjust 13 Feb.20
SV001-02-001	GE 2005	COOLANT SAMPLE (LEVEL 1) - OBTAIN	250	4/18/2023	21,353.8	135.4	
SV001-02-001	GE 2006	BATTERY ELECTROLYTE LEVEL - CHECK	250/6MONTHS	4/18/2023	21,353.8	135.4	
SV001-02-001	GE 2007	ENGINE OIL SAMPLE - OBTAIN	6MONTHS	2/13/2023	20,794.8	8/12/2023	At 130 Hrs.
SV001-02-001	GE 2008	FUEL TANK WATER AND SEDIMENT - DRAIN	250/6MONTHS	4/15/2023	21,347.8	141.4	
SV001-02-001	GE 2009	HOSES AND CLAMPS - INSPECT/REPLACE	250/6MONTHS	4/15/2023	21,347.8	141.4	
SV001-02-001	GE 2010	BELTS - INSPECT/ADJUST/REPLACE	500/1 YEAR	4/13/2023	21,324.9	164.3	
SV001-02-001	GE 2011	COOLING SYSTEM SUPPLEMENTAL COOLANT ADDITIVE (SCA) - TEST/A	500/1 YEAR	3/18/2023	21,080.7	408.5	
SV001-02-001	GE 2012	ENGINE OIL AND FILTER - CHANGE	700/1 YEAR	3/26/2023	21,160.2	329.0	Renewed Lo+filter
SV001-02-001	GE 2013	ENGINE PROTECTIVE DEVICES - CHECK	500/1 YEAR	3/26/2023	21,153.2	336.0	
SV001-02-001	GE 2014	FUEL SYSTEM PRIMARY FILTER (WATER SEPARATOR) ELEMENT - REPLA	700/1 YEAR	3/23/2023	21,153.2	336.0	Renewed
SV001-02-001	GE 2015	FUEL SYSTEM SECONDARY FILTER - REPLACE	700/1 YEAR	3/23/2023	21,153.2	336.0	Renewed
SV001-02-001	GE 2016	ENGINE CRANKCASE BREATHER - CLEAN	2,000/ 1 YEAR	1/24/2023	20,646.9	842.3	
SV001-02-001	GE 2017	GENERATOR LEAD (ROUND CABLE) - CHECK	2,000/ 1 YEAR	1/24/2023	20,646.9	842.3	
SV001-02-001	GE 2018	GENERATOR SET VIBRATION - INSPECT	2,000/ 1 YEAR	1/24/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2019	RADIATOR - CLEAN	2,000/ 1 YEAR	1/24/2023	20,646.9	842.3	
SV001-02-001	GE 2020	STATOR LEAD - CHECK	2,000/ 1 YEAR	1/24/2023	20,646.9	842.3	
SV001-02-001	GE 2021	GOVERNOR - CALIBRATION	2 YEAR	1/24/2023	20,646.9	1/23/2025	Replace with recond. Spare
SV001-02-001	GE 2022	ROTATING RECTIFIER - CHECK	YEARLY	1/24/2023	20,646.9	1/24/2024	
SV001-02-001	GE 2023	VARISTOR - CHECK	YEARLY	-	-	-	
SV001-02-001	GE 2024	COOLANT TEMPERATURE REGULATOR - REPLACE (S/N : FFJ1-UP)	3 YEARS	1/24/2023	20,646.9	1/23/2026	Check condition
SV001-02-001	GE 2025	ALTERNATOR - INSPECT	3,000/3 YEARS	1/24/2023	20,646.9	842.3	Check condition
SV001-02-001	GE 2026	COOLANT TEMPERATURE REGULATOR - REPLACE	3,000/3 YEARS	1/23/2023	20,646.9	842.3	Check condition
SV001-02-001	GE 2027	CRANKSHAFT VIBRATION DAMPER - INSPECT	3,000/3 YEARS	1/23/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2028	ENGINE MOUNTS - INSPECT	3,000/3 YEARS	1/23/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2029	ENGINE VALVE ROTATORS - INSPECT	3,000/3 YEARS	1/23/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2030	STARTING MOTOR - INSPECT	3,000/3 YEARS	1/23/2023	20,646.9	842.3	
SV001-02-001	GE 2031	TURBOCHARGER - INSPECT	3,000/3 YEARS	2/22/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2032	WATER PUMP - INSPECT	3,000/3 YEARS	2/22/2023	20,802.2	687.0	Visual inspection
SV001-02-001	GE 2033	COOLANT (DEAC) - CHANGE (S/N : FFJ1-UP)	4,000/2 YEARS	1/23/2023	20,646.9	842.3	Visual inspection
SV001-02-001	GE 2034	GENERATOR BEARING - LUBRICATE	4500	1/23/2023	20,646.9	842.3	
SV001-02-001	GE 2035	COOLANT (ELC) - CHANGE (S/N : FFJ1-UP)	6 YEARS	1/23/2023	20,646.9	-	
SV001-02-001	GE 2036	COOLANT (ELC) - CHANGE	12,000/6 YEARS	1/23/2023	15,696.1	5793.1	
SV001-02-001	GE 2037	OVERHAUL CONSIDERATIONS	Docking	1/23/2023	20,646.9	-	
SV001-02-001	GE 2038	TEST LOW PRESSURE OF L.O ALARM	500	4/20/2023	21,372.0	117.2	
SV001-02-001	GE 2039	TEST LOW PRESSURE OF L.O SHUT DOWN	2000	2/17/2023	20,801.7	687.5	
SV001-02-001	GE 2040	TEST HIGHT TEMPERATURE OF F.W COLLING SHUT DOWN	2000	2/17/2023	20,801.7	687.5	
SV001-02-001	GE 2041	TEST HIGHT TEMPERATURE OF F.W COLLING ALARM	500	4/20/2023	21,372.0	117.2	
SV001-02-001	GE 2042	REPLACE ZINC ANODE S.W COOLER ALL UNIT	250	4/18/2023	21,353.8	135.4	Check condition
		INSPECTION AUXILIARY ENGINE CONTROL SYSTEM					
SV001-02-001	GE 2042	INSPECTION CONTROL BOX CONNECT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2043	INSPECTION CONTROL BOX WIRING	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2044	INSPECTION DELAY CONTROL ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2045	INSPECTION SPEED SENSOR ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2046	INSPECTION MOTOR STARTING ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2047	INSPECTION SPEED CONTROL ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2048	INSPECTION BATTERY ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	
SV001-02-001	GE 2049	INSPECTION FUSE ALL UNIT	MONTHLY	4/8/2023	21,262.8	5/8/2023	

Remark Complete overhaul set on **24 Jan 2023**

SC GROUP

Date : 01/01/2018 | Revision : 00 | Ref : F-04-TEC/06

Planned Maintenance System

Prepare by : Chief Officer — Date : 30-Apr-23

Inspected by : [redacted] — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : 30-Apr-23

Ship Name : SC PAILIN

ชื่อเรือ

Total running hrs.
Previous M. run. Hrs.
Run. Hrs. from prev. M.

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		Lifeboat / Rescue Boat					
SV001-19-000	LR 1301	· Moving from stowed position (Lifeboat)	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1302	· Test run engines (not less than 3 min)	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1303	· Visual inspection (Launching appliances)	Weekly	29 Apr 23		6 May 23	
		Lifeboat / Rescue Boat					
SV001-19-000	LR 1301	· Inspection of equipment (Inventory)	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1302	· Visual inspection (Condition)	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1303	· Maintenance Launching arrangement	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1304	Liferafts No.1 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1305	Liferafts No.2 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1306	Liferafts No.3 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1307	Liferafts No.4 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1308	Liferafts No.5 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1309	Liferafts No.6 / ~~Davit – launched liferaft~~	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1310	Life buoys	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1311	Life buoys with line	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1312	Life buoys with light	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1313	Life buoys with light and line	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1314	Life buoy light & smoke (MOB)	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1315	Life jackets with a whistle & light	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1316	Thermal Protective Aids	Weekly	29 Apr 23		6 May 23	
~~SV001-19-000~~	~~LR 1317~~	~~Immersion suits~~	~~Weekly~~	N/A		N/A	
SV001-19-000	LR 1320	Emergency lighting	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1321	Oxygen resuscitation	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1322	Stretcher / Paraguard excel rescue stretcher	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1323	SART 1.S/N ;710413, 2.S/N ;710456	Weekly	29 Apr 23		6 May 23	Annual 18/12/20
SV001-19-000	LR 1324	EPIRB S/N ;100-46894	Weekly	29 Apr 23		6 May 23	Annual 18/12/20
SV001-19-000	LR 1325	Two way VHF radio / Battery	Weekly	29 Apr 23		6 May 23	Annual 18/12/20
SV001-19-000	LR 1326	LSA IMO symbol	Weekly	29 Apr 23		6 May 23	
SV001-19-000	LR 1327	Safety Hardness	Weekly	29 Apr 23		6 May 23	

SC GROUP	Date : 01/01/2018	Revision : 00	Ref : F-04-TEC/06
	Planned Maintenance System		

Prepare by : Second Engineer — Date : 30-Apr-23

Inspected by : Chief Engineer — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : April 2023

Ship Name : SC PAILIN (MAIN ENGINE STBD.)

ชื่อเรือ

Total running hrs.	28817.0
Previous M. run. Hrs.	28319.8
Run. Hrs. from prev. M.	497.20

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
		MAIN ENGINE STBD.					
SV001-01-001	ME 1001	BATTERY ELECTROLYTE LEVEL - CHECK	250	4/22/2023	28665.2	151.8	
SV001-01-001	ME 1002	BELTS - INSPECT/ADJUST/REPLACE	250	4/22/2023	28665.2	151.8	
SV001-01-001	ME 1003	COOLANT SAMPLE (LEVEL 1) - OBTAIN	250	4/22/2023	28665.2	151.8	
SV001-01-001	ME 1004	COOLING SYSTEM SUPPLEMENTAL COOLANT ADDITIVE (SCA) - TEST/ADI	250	4/22/2023	28665.2	151.8	
SV001-01-001	ME 1005	ENGINE OIL SAMPLE - OBTAIN	6MONTHS	2/14/2023	27785.9	8/13/2023	
SV001-01-001	ME 1006	ENGINE OIL AND FILTER - CHANGE	1500	1/23/2023	27648.0	1169.0	
SV001-01-001	ME 1007	HOSES AND CLAMPS - INSPECT/REPLACE	250	4/22/2023	28665.2	151.8	
SV001-01-001	ME 1008	COOLANT SAMPLE (LEVEL 2) - OBTAIN	500	4/24/2023	28697.4	119.6	
SV001-01-001	ME 1009	AIR SHUTOFF - TEST	500	N/A		N.A.	
SV001-01-001	ME 1010	ENGINE - CLEAN	1000	1/23/2023	27648.0	1169.0	
SV001-01-001	ME 1011	ENGINE CRANKCASE BREATHER - CLEAN	1000	1/23/2023	27648.0	1169.0	Cleaned
SV001-01-001	ME 1012	ENGINE PROTECTIVE DEVICES - CHECK	1000	4/24/2023	28697.4	119.6	
SV001-01-001	ME 1013	FUEL SYSTEM PRIMARY FILTER/WATER SEPARATOR - CLEAN/REPLACE	1000	4/24/2023	28697.4	119.6	
SV001-01-001	ME 1014	FUEL SYSTEM SECONDARY FILTER - REPLACE	1000	4/24/2023	28697.4	119.6	
SV001-01-001	ME 1015	AIR STARTING MOTOR LUBRICATOR BOWL - CLEAN	2000	N.A.	-	N.A.	
SV001-01-001	ME 1016	CRANKSHAFT VIBRATION DAMPER - INSPECT	2000	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1017	DRIVEN EQUIPMENT - CHECK	2000	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1018	ENGINE MOUNTS - INSPECT	2000	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1019	TURBOCHARGER (Port) - INSPECT	2000	1/23/2023	27648.0	1169.0	Overhauled
		TURBOCHARGER (Stbd.) - INSPECT	2000	1/23/2023	27648.0	1169.0	Overhauled
SV001-01-001	ME 1020	COOLANT SAMPLE (LEVEL 2) - OBTAIN	YEARLY	-	-	-	
SV001-01-001	ME 1021	COOLANT EXTENDER (ELC) - ADD	3,000/3 YEARS	-	-	-	
SV001-01-001	ME 1022	AUXILIARY WATER PUMP - INSPECT	4000	1/23/2023	27648.0	1169.0	Overhauled
SV001-01-001	ME 1023	ENGINE VALVE LASH - CHECK	4000	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1024	FUEL INJECTOR - INSPECT/ADJUST	4000	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1025	AIR SHUTOFF DAMPER - REMOVE/CHECK	6000	N.A.	-	N.A.	
SV001-01-001	ME 1026	COOLANT TEMPERATURE REGULATOR - REPLACE	6000	1/23/2023	27648.0	1169.0	Replace
SV001-01-001	ME 1027	COOLANT TEMPERATURE REGULATOR - REPLACE	6,000/6 YEARS	1/23/2023	27648.0	1169.0	Replace
SV001-01-001	ME 1028	ENGINE SPEED/TIMING SENSOR - CLEAN/INSPECT	6,000/6 YEARS	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1029	PRELUBE PUMP - INSPECT	6,000/6 YEARS	N.A.	-	N.A.	
SV001-01-001	ME 1030	STARTING MOTOR (UPPER) - INSPECT	6,000/6 YEARS	1/23/2023	27648.0	1169.0	spected,cleaned and greased
		STARTING MOTOR (LOWER) - INSPECT	6,000/6 YEARS	1/23/2023	27648.0	1169.0	spected,cleaned and greased
SV001-01-001	ME 1031	WATER PUMP - INSPECT	6,000/6 YEARS	1/23/2023	27648.0	1169.0	Overhauled
SV001-01-001	ME 1032	CAMSHAFT ROLLER FOLLOWERS - INSPECT	8,000/3 YEARS	1/23/2023	27648.0	1169.0	Inspected by Cat Tech.
SV001-01-001	ME 1033	AFTERCOOLER CORE - INSPECT/CLEAN/TEST	8,000/3 YEARS	1/23/2023	27648.0	1169.0	Cleaned
SV001-01-001	ME 1034	OVERHAUL (MAJOR)	20,000/6 YEARS	1/23/2023	27648.0	1169.0	Overhauled
SV001-01-001	ME 1036	OVERHAUL CONSIDERATIONS	Docking	1/23/2023	27648.0	1169.0	Overhauled
SV001-01-001	ME 1037	INSPECT CRANKSHAFT VIBRATION DAMPER	-	-	-	-	
SV001-01-001	ME 1038	CLEAN ENGINE LUB OIL CENTRIFUCAL	1500	1/23/2023	27648.0	1169.0	Cleaned
SV001-01-001	ME 1039	INSPECTION INTERMEDIATE SHAFT BEARING (STBD) NO. 1	2 YEARLY	1/23/2023	27648.0	1/22/2025	Visual inspection
SV001-01-001	ME 1040	INSPECTION INTERMEDIATE SHAFT BEARING (STBD) NO. 2	2 YEARLY	1/23/2023	27648.0	1/22/2025	Visual inspection
SV001-01-001	ME 1041	CHANGE L.O INTERMEDIATE SHAFT BEARING (STBD) NO.1	YEARLY	1/23/2023	27648.0	1/23/2024	
SV001-01-001	ME 1042	CHANGE L.O INTERMEDIATE SHAFT BEARING (STBD) NO.2	YEARLY	1/23/2023	27648.0	1/23/2024	
SE001-01-001	ME 1042	TEST LOW PRESSURE OF L.O ALARM	500	4/24/2023	28697.4	119.6	
SE001-01-001	ME 1043	TEST LOW PRESSURE OF L.O SHUT DOWN	2000	1/23/2023	27648.0	1169.0	
SE001-01-001	ME 1044	TEST HIGH TEMPERATURE OF F.W COOLING SHUT DOWN	2000	1/23/2023	27648.0	1169.0	
SE001-01-001	ME 1045	TEST HIGH TEMPERATURE OF F.W COOLING ALARM	500	4/24/2023	28697.4	119.6	
SE001-01-001	ME 1046	REPLACE ZINC ANODE S.W COOLER ALL UNIT	250	4/22/2023	28665.2	151.8	
		KOBELT INSPECTION					
SV001-01-001	ME 1001	INSPECTION KOBELT MICRO SWITCH	2000	N.A.	-	N.A.	
SV001-01-001	ME 1002	INSPECTION KOBELT ALL ELECTRIC CONNECTION	2000	N.A.	-	N.A.	

SC GROUP	Date : 01/01/2018	Revision : 00	Ref : F-04-TEC/06
	Planned Maintenance System		

Prepare by : Second Engineer — Date : 30-Apr-23

Inspected by : Chief Engineer — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : April 2023

Ship Name : SC PAILIN (MAIN ENGINE STBD.)

ชื่อเรือ

Total running hrs.	28817.0
Previous M. run. Hrs.	28319.8
Run. Hrs. from prev. M.	497.20

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
SV001-01-001	ME 1003	INSPECTION MOTOR DRIVE 24 VOLT	500	N.A.	-	N.A.	
SV001-01-001	ME 1004	INSPECTION PROTENCAIL	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1005	FUCTION TEST KOBELT	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1006	GREASE AND LUBRICATE MOVING PART	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1007	ELECTRIC WIRE	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1008	INSPECT THE SYSTEM WIRING	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1009	APPLY POWER TO THE SYSTEM AND OBSERVE CAREFULLY	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1010	PRESS THE STATION SELECT BUTTON TO ACKNOWLEDGE CONTROL	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1011	MOVE CONTROL HEAD LEVERS AND OBSERVE WHETHER THE ACTUATORS	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1012	DETERMINE MINIMUM AND MAXIMUM THROTTLE POSITIONS	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1013	THE POLARITY IS REVERSED ON DC POWER INPUT	MONTHLY	N.A.	-	N.A.	
SV001-01-001	ME 1014	ANNUAL SERVICE	YEARLY	N.A.	-	N.A.	
SV001-01-001	ME 1015	CHECK CONDITION CARBON BRUSH AND REPLACE	YEARLY	N.A.	-	N.A.	
		INSPECTION MAIN ENGINE CONTROL SYSTEM					
SV001-01-001	ME 1001	INSPECTION CONTROL BOX CONNECT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1002	INSPECTION CONTROL BOX WIRING	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1003	INSPECTION DELAY CONTROL ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1004	INSPECTION SPEED SENSOR ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1005	INSPECTION MOTOR STARTING ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1006	INSPECTION SPEED CONTROL ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1007	INSPECTION BATTERY ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
	ME 1008	INSPECTION FUSE ALL UNIT	MONTHLY	4/25/2023	28714.9	5/25/2023	
SV001-01-001	ME 1009	INSPECTION MARINE PROPULSION SYSTEMS (ECS 4000)	MONTHLY	4/25/2023	28714.9	5/25/2023	

SC GROUP	Date : 01/01/2018	Revision : 00	Ref : F-04-TEC/06
	Planned Maintenance System		

Prepare by : Chief Officer — Date : 30-Apr-23

Inspected by : [redacted] — Date : 30-Apr-23

Ship Name : SC PAILIN — Month : 30-Apr-23

Ship Name : SC PAILIN FIRE FIGHTING EQUIPMENT

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Total running hrs.
Previous M. run. Hrs.
Run. Hrs. from prev. M.

Equipment Code รหัสอุปกรณ์	Job Code รหัสงาน	Job Name / Description ชื่องาน	RH/P	Last M. date	Last M. Hours	R/H (NEXT DUE)	Remark หมายเหตุ
SV001-18-000	FF 1300	FIRE FIGHTING EQUIPMENT					
SV001-18-000	FF 1301	Inspection Of Fire Detection & General Alarm	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1302	Inspection Of Fireman Outfit Condition	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1303	Inspection Of Fire Hose Condition	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1304	Inspection Of Fire Nozzle Condition	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1305	Inspection of Sprinkle Nozzles	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1306	Testing And Inspection Of Fire Doors	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1307	Testing And Inspection Of Fixed Co2 & Control System	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1308	Testing of Fire Alarm Sub-Panel	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1309	Testing of Fire Alarm Bells & Horns	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1310	Testing of Heat Detector all unit	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1311	Testing of Smoke Detector all unit	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1312	Testing of Manually Operated Call Point	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1313	Testing of General Alarm	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1314	Checking of Watertight Doors	Monthly	29/4/2023		29 May 23	
SV001-18-000	FF 1315	Fixed fire detection and alarm systems	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1316	Self-Contained Breathing Apparatus (SCBA)	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1317	Emergency Escape Breathing Device (EEBD)	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1318	Water mist, water spray & sprinkler systems	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1319	Fire doors	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1320	Public address systems	weekly	29/4/2023		6 May 23	
SV001-18-000	FF 1321	General alarm systems	weekly	29/4/2023		6 May 23	
~~SV001-18-000~~	~~FF 1322~~						
	~~FF 1323~~						
SV001-18-000	FF 1324	Fire hydrants	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1325	Fire Hoses / Nozzles	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1326	Isolation Valves	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1327	Fixed fire-extinguishing systems and Alarms	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1328	Portable fire extinguishers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1329	· Foam extinguishers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1330	· Dry chemical extinguishers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1331	· CO2 extinguishers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1332	Fireman's outfits	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1333	Ventilation systems and fire dampers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1334	Fire Blanket & Flame Trap in Galley	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1335	Galley and deep fat cooking fire extinguishing systems	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1336	Fire Protection - Paint Lockers	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1337	International shore connection	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1338	FiFi	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1339	FFE IMO symbol	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1340	Checking of Pilot Ladder	weekly	29 Apr 23		6 May 23	
SV001-18-000	FF 1341	Visual check of Rescue Boat Davit System	weekly	29 Apr 23		6 May 23	

Certificate No.: [redacted]

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(This Certificate shall be supplemented by a Record of Construction and Equipment)

Issued under the Provisions of the
International Convention for the Prevention of Pollution from Ships, 1973,
as modified by the Protocol of 1978 relating thereto and as amended,
(hereinafter referred to as "the Convention")
under the authority of the Government of

Kingdom of Thailand
(name of state)

by American Bureau of Shipping

Particulars of Ship

Name of Ship	Distinctive Number or Letters	Port of Registry
SC PAILIN	HSB 4800	Bangkok
Gross Tonnage [1] a) According to footnote [2] ~~b) According to footnote [3]~~	Maximum Deadweight of Ship (metric tons) [4]	IMO Number
1678	-	9452309

Type of Ship[1]:
~~Oil Tanker~~
Ship other than an oil tanker with cargo tanks coming under Regulation 2(2) of Annex I of the Convention
~~Ship other than any of the above~~

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with Regulation 6 of Annex I of the Convention;
2. That the survey shows that the structure, equipment, systems, fittings, arrangement and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This Certificate is valid only when Supplement Form B issued at Map Ta Phut, Thailand on 27 January 2023 is attached.

This certificate is valid until **16 November 2027** [5] subject to surveys in accordance with Regulation 6 of Annex I of the Convention.

Completion date of the survey on which this certificate is based: **27 January 2023**

Issued at Harin S/Y - Samut Sakhon, Thailand on 27 January 2023
(Place of Issue of Certificate)

[redacted]

Surveyor, American Bureau of Shipping

1 Delete as appropriate
2 The above gross tonnage has been determined in accordance with the International Convention on Tonnage Measurement of Ships, 1969.
3 The above gross tonnage has been determined by the authorities of the Administration in accordance with the national tonnage rules which were in force prior to the coming into force for existing ships of the International Convention on Tonnage Measurement of Ships, 1969.
4 For oil tankers.
5 Insert the date of expiry as specified by the Administration in accordance with regulation 10.1 of Annex I of the Convention. The day and the month of date corresponds to the anniversary date as defined in regulation 1.27 of Annex I of the Convention, unless amended in accordance with regulation 10.8 of Annex I of the Convention.

Certificate No.: [redacted]

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by Regulation 6 of Annex I of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual Survey:
Signed: _____ *(Surveyor, American Bureau of Shipping)*
Place: _____
Date: _____

Annual / Intermediate[1] Survey:
Signed: _____ *(Surveyor, American Bureau of Shipping)*
Place: _____
Date: _____

Annual / Intermediate[1] Survey:
Signed: _____ *(Surveyor, American Bureau of Shipping)*
Place: _____
Date: _____

Annual Survey:
Signed: _____ *(Surveyor, American Bureau of Shipping)*
Place: _____
Date: _____

1 Delete as appropriate

เรือตำบลที่ 4-3.2 International Oil Pollution Prevention Certificate

ANNUAL / INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 10.8.3

THIS IS TO CERTIFY that, at an annual / intermediate[1] survey in accordance with Regulation 10.8.3 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention.

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 10.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.3 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 10.4 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.4 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 10.5 OR 10.6 [1] APPLIES

This Certificate shall, in accordance with regulation 10.5 /10.6 [1] of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ABS

1 Delete as appropriate

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ABS

[Document title]

SC GROUP

SDS Safety Data Sheet

LANDA Kärcher Group

Industrial Grease and Carbon Remover

SDS Number: L906942

Revision Date: June 26, 2017

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Industrial Grease and Carbon Remover
Revision Date: June 26, 2017
Version: 46-12E
SDS Number: L906942

Manufactured for:

Kärcher North America
4555 Airport Way
Denver, CO 80239
Phone: 303-738-2400
Email: info@karcherna.com

Canadian Contact:

Kärcher North America
6535 Millcreek Drive, Unit 67
Mississauga, ON L5N 2M2
Phone: 905-672-8233

Emergency Information: INFOTRAC 1-800-535-5053 International 1-352-323-3500

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Acute toxicity, 4 Oral
Health, Skin corrosion/irritation, 1 C
Health, Serious Eye Damage/Eye Irritation, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

GHS Hazard Statements:

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P363 - Wash contaminated clothing before reuse.