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## เอกสารแนบ

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# เอกสารแนบที่ 1

สำเนาหนังสือเห็นชอบอนุมัติโครงการ  
จากสำนักงานนโยบายและแผนทรัพยากรธรรมชาติ  
และสิ่งแวดล้อม

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รับที่.....TSH  
วันที่.....๑๐ MAR. 2016.....



ddok ID	49336
Business Unit	CEB/17
Date	8/03/159
Time	900
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ที่ ทส ๑๐๐๙.๒/ ๒๕๕๙

สำนักงานนโยบายและแผน  
ทรัพยากรธรรมชาติและสิ่งแวดล้อม  
ถนนพระรามที่ ๖ แขวงสามเสนใน  
เขตพญาไท กรุงเทพฯ ๑๐๔๐๐

มีนาคม  
๒๕๕๙

เรื่อง การพิจารณารายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม โครงการผลิตปิโตรเลียม แหล่งกำแพงแสน  
แปลง PTTEP 1 จังหวัดนครปฐม ของบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด

เรียน กรรมการผู้จัดการใหญ่ บริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด

อ้างถึง หนังสือบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ที่ ปตท.สผ.อ.๑๒๐๐๒/๐๐-๐๘๔๒/๒๐๑๖  
ลงวันที่ ๑๐ กุมภาพันธ์ ๒๕๕๙

สิ่งที่ส่งมาด้วย มาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม และมาตรการติดตามตรวจสอบ  
ผลกระทบสิ่งแวดล้อม โครงการผลิตปิโตรเลียม แหล่งกำแพงแสน แปลง PTTEP 1  
จังหวัดนครปฐม ของบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด

ตามหนังสือที่อ้างถึง บริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ได้เสนอรายงาน  
การวิเคราะห์ผลกระทบสิ่งแวดล้อม ฉบับข้อมูลเพิ่มเติม โครงการผลิตปิโตรเลียม แหล่งกำแพงแสน แปลง  
PTTEP 1 จังหวัดนครปฐม ของบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด จัดทำรายงานโดยบริษัท ยูโนเด็ค  
แอนนาลิสต์ แอนด์ เอ็นจิเนียริง คอนซัลแตนท์ จำกัด ให้สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและ  
สิ่งแวดล้อม พิจารณาดำเนินการตามลำดับขั้นตอนการพิจารณา รายงาน ความละเอียดแจ้งแล้ว นั้น

สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม ได้เสนอรายงานการ  
วิเคราะห์ผลกระทบสิ่งแวดล้อมโครงการดังกล่าว ให้คณะกรรมการผู้ชำนาญการพิจารณารายงานการวิเคราะห์  
ผลกระทบสิ่งแวดล้อม ด้านพัฒนาปิโตรเลียม พิจารณาดำเนินการตามลำดับขั้นตอนการพิจารณา รายงาน และในการ  
ประชุมครั้งที่ ๕/๒๕๕๙ เมื่อวันที่ ๑๙ กุมภาพันธ์ ๒๕๕๙ คณะกรรมการผู้ชำนาญการฯ มีมติให้ความเห็นชอบ  
รายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม โครงการผลิตปิโตรเลียม แหล่งกำแพงแสน แปลง PTTEP 1  
จังหวัดนครปฐม ของบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด โดยให้ปฏิบัติตามมาตรการป้องกันและแก้ไข  
ผลกระทบสิ่งแวดล้อมและมาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อมอย่างเคร่งครัด รายละเอียดตาม  
สิ่งที่ส่งมาด้วย ทั้งนี้ หากท่านได้รับอนุญาตโครงการแล้ว สำนักงานนโยบายฯ ขอความร่วมมือส่งสำเนา  
ใบอนุญาตพร้อมเงื่อนไขให้สำนักงานนโยบายฯ ทราบด้วย และประสานผู้จัดทำรายงานฯ ให้ดำเนินการ  
รวบรวมรายละเอียดข้อมูลทั้งหมดเรียงตามลำดับการพิจารณาของคณะกรรมการผู้ชำนาญการฯ จำนวน

To: TEM

To: TEM/O

๑) นพ.ดร.ดร.ดร.  
๒) เลขาฯ

FYI ka.

๑ เล่ม...

Regards,

Laman P.

TSH  
8.03.16

ขอแสดงความนับถือ

(นางปิยนันท์ โศภนคณาภรณ์)  
รองเลขาธิการ ปฏิบัติราชการแทน  
เลขาธิการสำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม

สำนักวิทยุกระจายแห่งประเทศไทยสิ่งแวดล้อม  
โทรศัพท์ ๐ ๒๒๖๕ ๖๕๐๐ ต่อ ๖๗๙๓  
โทรสาร ๐ ๒๒๖๕ ๖๖๑๖

[illegible]



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## เอกสารแนบที่ 2

หนังสืออนุญาตการเปลี่ยนแปลงรายละเอียดโครงการ  
ในรายงานการประเมินผลกระทบสิ่งแวดล้อม  
จากกรมเชื้อเพลิงธรรมชาติ

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ddok ID	HQ201803171
Business Unit	OPS
Date	19/06/18
Time	16.00
<input checked="" type="checkbox"/> SCANNED	

ที่ พน 0308/ 2135

กรมเชื้อเพลิงธรรมชาติ  
ศูนย์เอนเนอร์ยี คอมเพล็กซ์ อาคารบี ชั้น 21  
ถนนวิภาวดีรังสิต กรุงเทพฯ 10900

13 มิถุนายน 2561

เรื่อง การเปลี่ยนแปลงรายละเอียดในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมโครงการผลิตปิโตรเลียม  
แหล่งก้ำแพงแสน แพลง PTTEP1 จังหวัดนครปฐม

เรียน กรรมการบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด

- อ้างถึง 1. หนังสือบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ที่ ปตท.สผ.อ. 11026/00-3698/2018  
ลงวันที่ 30 เมษายน 2561  
2. หนังสือบริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ที่ ปตท.สผ.อ. 11026/00-4959/2018  
ลงวันที่ 5 มิถุนายน 2561

ตามหนังสือที่อ้างถึง 1 บริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ประสงค์ขอเปลี่ยนแปลงรายละเอียด  
ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมโครงการผลิตปิโตรเลียมแหล่งก้ำแพงแสน แพลง PTTEP1  
จังหวัดนครปฐม ที่ได้รับความเห็นชอบจากคณะกรรมการผู้ชำนาญการพิจารณารายงานการวิเคราะห์ผลกระทบ  
สิ่งแวดล้อม ด้านพัฒนาปิโตรเลียม และต่อมาบริษัทฯ ได้นำส่งรายงานการเปลี่ยนแปลงฯ ฉบับสมบูรณ์ ตามหนังสือ  
ที่อ้างถึง 2 ความละเอียดแจ้งแล้ว นั้น

กรมเชื้อเพลิงธรรมชาติ ได้พิจารณารายงานการเปลี่ยนแปลงรายละเอียดฯ แล้ว เห็นว่า  
เป็นการเปลี่ยนแปลงที่ไม่กระทบต่อสาระสำคัญของการวิเคราะห์ผลกระทบสิ่งแวดล้อมในรายงานการวิเคราะห์  
ผลกระทบสิ่งแวดล้อมของโครงการฯ จึงเห็นควรอนุญาตให้บริษัทฯ ดำเนินการเปลี่ยนแปลงตามที่เสนอมาได้ ดังนี้

1. ย้ายตำแหน่งหลุมเจาะปิโตรเลียมจากฐานหลุมผลิตก้ำแพงแสน 2 (KS 2) จำนวน 2 หลุม มายัง  
ฐานหลุมผลิตก้ำแพงแสน 1 (KS 1)
2. เปลี่ยนแปลงมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อมและมาตรการติดตามตรวจสอบ  
คุณภาพสิ่งแวดล้อม

ทั้งนี้ ให้บริษัทฯ ปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม และมาตรการติดตาม  
ตรวจสอบผลกระทบสิ่งแวดล้อมในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมฯ อย่างเคร่งครัด

จึงแจ้งมาเพื่อทราบและถือปฏิบัติ

ขอแสดงความนับถือ



(นายภูมิ ศรีสุวรรณ)  
รองอธิบดี ปฏิบัติราชการแทน  
อธิบดีกรมเชื้อเพลิงธรรมชาติ

OPS → PSP, PTM/P  
CC: PTN, CEN

กองความปลอดภัยและสิ่งแวดล้อมเชื้อเพลิงธรรมชาติ

โทร. 0 2794 3303 โทรสาร 0 2794 3277

Email : apasiri@dmf.go.th

FYI 50  
20/6/18

FYI & further action.

CHS 18/6/18

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## เอกสารแนบที่ 3

เอกสารสัญญาจ้างผู้รับเหมาขับรถบรรทุกน้ำมันดิบ

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Exhibit A

Scope of the SERVICES

## **Exhibit A**

### **Scope of the SERVICES**

#### **1. Introduction**

The Company holds the petroleum concession in respect of onshore petroleum concession situated in central plain and northeast of Thailand.

The Sirikit oil field (S1) and L22/43 concession are located approximately 400 kilometers north-west of Bangkok, mainly within the area Lan Krabue District of Kamphaeng Phet Province and there are small oil and gas well locations situated around the Sirikit field in Sukothai, Phitsanulok and Uthaladit province.

The PTTEP1 oil field located approximately 230 kilometers north of Bangkok, mainly of production area are suited within the area Suphanburi province and L53/43 and L54/43 concessions.

#### **2. General**

The CONTRACTOR shall perform the SERVICES at all times to the highest standard applicable in the industry. The CONTRACTOR shall conform at all times in the performance of the SERVICES with the Thai national legislations and regulations, the Thai Labor and all relevant COMPANY rules and regulations, specifically, the COMPANY's Safety, Security, Health and Environment rules and regulations.

#### **3. Scope of SERVICES**

The Contractor shall provide the service for transportation of crude oil and/or produced water by road tankers specified in Vehicle Specification for Provisional of Crude Oil Fleet and loading and unloading of crude oil and produced water at the respective places. Drivers will also provide necessary assistance at loading and unloading points as required by the PTTEP Crude Oil Terminal and Site Station authorities.

The contractor shall submit the operation report and include crude oil transfer statement (Bill of landing) for inventory verification on a daily basis. B/L completion will be accepted and signed by Production Operator or Depot Operator. Job or trip completion when Transport Supervisor verifies and sign daily report. The warranty duration period shall be ceasing after the date of acceptance of the SERVICES by the COMPANY.

##### **3.1 Vehicles**

The CONTRACTOR shall provide and operate Road Tankers in combination of the prime mover tractor with Semi Trailer Tanker (3-axel-semi-trailer) as follow:

- a) For S1 & L22/43 Asset.

~~The Road Tankers for servicing in Northern region concessions and assets (S1 and L22/43) to be provided Road Tankers in combination of the prime mover tractor with Semi Trailer Tanker (3-axel-~~



semi-trailer) aluminum tank capacity at least 40,000 liters with minimum estimate required unit plan in accordance with Table 3.1-A in Exhibit A and shall be used exclusively for the transportation of COMPANY's crude oil and produced water from production station, LKU or others COMPANY's remote locations within concession to COMPANY's crude oil terminal, Bung Para, Phitsanulok and/or other destination specified by the COMPANY.

Table 3.1-A: Minimum estimate required plan of Road Tanker for S1 and L22/43 Asset

Year	2024	2025	2026
Road Tanker Aluminum (units)	55	50	45

b) For PTTEP1, L53/43 and L54/43 Asset

The Road Tankers for PTTEP1, L53/43 and L54/43 asset to be provided Road Tankers in combination of the prime mover tractor with Semi Trailer Tanker (3-axel-semi-trailer)aluminum tank capacity at least 40,000 liters and prime mover tractor with Semi Trailer (3-axel-semi-trailer) steel tank capacity at least 38,000 liters with minimum estimate required unit plan in accordance withTable 3.1-B in Exhibit A and shall be used exclusively for the transportation of crude oil and produced water from production station in Suphanburi area or others COMPANY's remote location to destination specified by the COMPANY. The stabilized crude oil shall transport to Bangchak Refinery in Bangkok and/or destination specified by the COMPANY.

Table 3.1-B: Minimum estimate required plan of Road Tanker for PTTEP1 S1 and L54/43 Asset

Year	2024	2025	2026
Road Tanker Aluminum (units)	7	7	7
Road Tanker Steel (units)	8	8	8

Road Tankers and Drivers shall be the assets of CONTRACTOR, and shall be used exclusively for transportation of COMPANY's crude oil and produced water. The Road Tankers shall be provided to classification for the carriage of petroleum products and meet the COMPANY minimum Vehicle Standard and Specifications. All Road Tankers to be supplied by the CONTRACTOR shall be inspected and certified in accordance with the COMPANY's requirements. The age of all vehicle from first registration date must not over than 7 year and the Road Tankers shall not be older than 12 years at the end of the CONTRACT period. The road tanker having age more than 10 years shall be passed the inspection and seek approval by COMPANY prior put in SERVICES under this CONTRACT.

**Note:** The COMPANY shall be entitled to request of SERVICES to increase or decrease Road Tanker as requirement in accordance with Table 3.1-A and 3.1-B as same specification for SERVICE period of each year, by giving written notice to the CONTRACTOR at least 3 months before SERVICES Date. During contract period Company has the right to increase or decrease the number of road tankers with the same rates or without any penalty/compensation respectively.

### 3.2 Drivers

CONTRACTOR shall provide experienced, well trained, and medical fit drivers to sufficiently operate the vehicles. It is expected that CONTRACT shall have their own driver at least 60 persons. CONTRACTOR shall make its own arrangements for the engagement/recruitment of drivers, including management of driver incentive scheme and team rewards as per attachment "Road Tanker Driver Manual". The costs incurred regarding the scheme shall be reimbursed to the COMPANY and it is subject to the handling charge as specified in Schedule of Rates of this CONTRACT.

The qualification of drivers shall conform to below requirement:

- All drivers shall have at least 3 years of valid driving license class 4 for hazardous goods vehicle, ADR Certificate (หลักสูตรพิเศษสำหรับการขนส่งวัตถุอันตราย ในรูปแบบแท่งค ตามประกาศกรมขนส่งทางบก) and DOEB license for Road Tanker (ตามประกาศกรมธุรกิจพลังงาน).
- All drivers shall pass on-the-road driving assessment or Defensive Driving or Road Safety Driving by a qualified Road Tanker driving assessor/instructor.

In addition, CONTRACTOR shall ensure that below document or similar document are established and fully implemented to assure the maximum of Safety, Security, Health and Environment.

1. Driver Recruitment Policy: To demonstrate the acquire method of the driver for any particular types of vehicles.
2. Driver Training and fit for work Policy: To demonstrate the system and/or training matrix to assure that all drivers are competent and medically fit for work
3. Driver Procedure and Instruction or Manual showing daily safety checks, product loading and unloading and precise instructions in cases of accident or emergency.

### 3.3 Road Safety Management

- a) The CONTRACTOR shall provide the In Vehicle Management System (IVMS) and Mobile Video Data Recorder (MVDR) and Fatigue Detection System (FDS) for tracking and monitoring and alert of crude oil fleet transportation. The feature of vehicle shall provide information and function as following:

- fully complied with Land Transportation Department,

- web base monitoring,
  - over speed audio alarm,
  - records of speed over time,
  - records of distance travelled,
  - records of excessive braking and acceleration,
  - records showing when the vehicle was being driven and when stationary or idle duration,
  - records of the engine revs over time,
  - records of turning light turn on and duration time,
  - the number of occasions when the maximum revs were exceeded,
  - the number of occasions in a given period that the maximum speed was exceeded,
  - the number of occasions when rest breaks were taken,
  - the time when each rest break commenced, and
  - the duration of each rest break.
  - alert and report for real time driving behavior.
  - Prevention for drowsy and microsleep
- b) The CONTRACTOR shall provide Citizen Band (CB) radio with voice activated speaker phone on all vehicle. The CB radio shall be fixed on vehicle dash board at the driver position.
- c) The CONTRACTOR shall provide transport coordinator for management the readiness of vehicles and drivers prior to start working, tool box talk, breathing alcohol test, retrieve driving data from in vehicle management system (IVMS) Mobile Video Data Recorder (MVDR) and Fatigue Detection System (FDS) and driving hours of driver. Company has the right to access CCTV, GPS and FDS system of CONTRACTOR
- d) The CONTRACTOR shall have emergency response plan including oil or chemical spill combat equipment. A qualify emergency team shall be established and trained for implementation and readiness for emergency response
- e) The CONTRACTOR shall establish replacement policy based on safety, economic life and obsolescence considerations for vehicle and standard equipment includes safety equipment, seat belts, load sensing/ABS braking systems, tyre change regulation, rear and side under-run guards. Vehicles shall conform to national and international regulations.
- f) Applicable for the S1 concession area, the CONTRACTOR shall provide transport inspector for en-route road safety management, roadside assistance and observe driving behavior.

#### 4. COMMENCEMENT DATE of the SERVICES

The CONTRACTOR shall commence the SERVICES on 1st January 2024 (Tentatively).

#### 5. Vehicle Specification

A. Prime Mover Tractor unit rated for a GCW of 50,500 kg., used for the hauling of road tanker for crude oil transportation.

5.1 Critical Vehicle Specification Requirement		
Item		Comments and/or motivation
5.1.1	<i>The Vehicle</i>	The vehicle to which this specification refers is a <ul style="list-style-type: none"> <li>• 3-axle tractor for use with a three-axle semi-trailer.</li> <li>• The current maximum GCW limit in Thailand is 50,500 kg the tractor unit must meet a GCW of 50,500 kg to be able to cope with possible future increased GCW limits in Thailand.</li> <li>• Engine brake capacity should be sufficient to comply with ADR regulations at a GCW of 44,000 kg.</li> <li>• Hight of vehicle is limited 3.20 meters.</li> </ul>
5.1.2	<i>Legislation</i>	The complete vehicle is to comply with: <ul style="list-style-type: none"> <li>• The laws and standards of Thailand.</li> <li>• Thailand's National Provisions for Transport of Dangerous Goods by Road.</li> </ul>
5.1.3	<i>Engine</i>	<ul style="list-style-type: none"> <li>• Diesel engine, water-cooled.</li> <li>• Minimum Emissions standard EURO-3.</li> <li>• 370 BHP or a minimum torque output of 1700 Nm.</li> <li>• Minimum Fuel tank capacity 300 Liters.</li> </ul>
5.1.4	<i>Transmission</i>	<ul style="list-style-type: none"> <li>• Drive configuration 6*2.</li> <li>• Cross-axle differential lock.</li> <li>• Rear axle rated for a GCW of 50,500 kg.</li> <li>• Twin mounted wheels on both rear axles.</li> <li>• Traction control.</li> </ul>
5.1.5	<i>Brakes</i>	<ul style="list-style-type: none"> <li>• Compressed air power brakes with air dryer.</li> <li>• Exhaust brake, compressed air operated.</li> <li>• ABS-system, electronically regulated, separate sensors.</li> </ul>

5.1 Critical Vehicle Specification Requirement		
Item		Comments and/or motivation
		<ul style="list-style-type: none"> <li>• Drum brakes or Disc Brake</li> <li>• Automatic slack adjusters.</li> <li>• Dual circuit, with a minimum of 2 wheels per circuit.</li> <li>• Blocking safety valve, which makes it impossible to drive the tractor without sufficient air pressure.</li> <li>• Parking brake is to be released by air pressure and activated by a mechanical coil-spring. Furthermore, this system is to operate independently of the driving brakes. Must be able to function as an emergency brake.</li> <li>• Manual control valve for separate trailer braking.</li> </ul>

5.2 General Vehicle Specification Requirement		
Item		Comments and/or motivation
<b>General</b>		
1.	<i>Weight and dimensions</i>	<ul style="list-style-type: none"> <li>• A GCW of 50,500 kg.</li> <li>• Fifth wheel position must allow a GVW of 21,000 kg when trailer fully loaded, without exceeding current legal axle loads.</li> </ul>
2.	<i>Operating conditions</i>	<ul style="list-style-type: none"> <li>• Tropical climate with ambient temperatures up to 45 degrees C.</li> <li>• Black top roads.</li> <li>• Vehicle will be operated in flat terrain with maximum speeds of 60km/h loaded and unloaded.</li> </ul>
<b>Driveline</b>		
1.	<i>Chassis</i>	<ul style="list-style-type: none"> <li>• Axle distance 3100 mm.</li> <li>• GVW is 21,000 kg.</li> <li>• GCW is 50,500 kg (will be operated at 40,500 kg)</li> </ul>
2.	<i>Suspension front</i>	<ul style="list-style-type: none"> <li>• Parabolic Springs.</li> </ul>
3.	<i>Suspension Rear</i>	<ul style="list-style-type: none"> <li>• Air suspension.</li> <li>• Each wheel must have its separate levelling valve.</li> </ul>
4.	<i>Steering</i>	<ul style="list-style-type: none"> <li>• Right hand drive.</li> <li>• Power assisted.</li> <li>• Adjustable steering wheel and column.</li> <li>• Steering column must be of safety type and fully collapsible in the event of an accident.</li> </ul>



<b>5.2 General Vehicle Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
5.	<b><i>Wheels / tyres</i></b>	<ul style="list-style-type: none"> <li>• Steel wheels designed for use with tubeless tyres.</li> <li>• Wheel size: 8.25-22.5</li> <li>• Tubeless radial tyres of the same type and profile with all weather tread pattern.</li> </ul>
6.	<b><i>Exhaust</i></b>	<ul style="list-style-type: none"> <li>• The exhaust outlet direction low right hand side.</li> <li>• The outlet to comply with ADR regulations for class III products.</li> </ul>
<b>Electric system</b>		
1.	<b><i>General</i></b>	<ul style="list-style-type: none"> <li>• Negative ground lead through chassis 24 Volts.</li> </ul>
2.	<b><i>Lighting</i></b>	<ul style="list-style-type: none"> <li>• LED Daytime running light.</li> <li>• In addition to the standard lights the following is required:</li> <li>• Fog lights.</li> <li>• Hazard warning lights.</li> </ul>

5.2 General Vehicle Specification Requirement		
Item		Comments and/or motivation
3.	<i>Instrument panel</i>	<p>As a minimum the following equipment to be installed:</p> <ul style="list-style-type: none"> <li>• Meters and gauges</li> <li>• Speedometer in Km/h.</li> <li>• RPM of engine.</li> <li>• Odometer in KM with trip odometer.</li> <li>• Oil pressure gauge.</li> <li>• Air pressure gauge for tractor unit.</li> <li>• Air pressure gauge for trailer unit.</li> <li>• Engine coolant temperature gauge.</li> <li>• Voltage.</li> <li>• Fuel level.</li> </ul> <p>Control indicators for:</p> <ul style="list-style-type: none"> <li>• Headlight on with a high beam indicator.</li> <li>• Turn signal (also audible) and hazard warning lights.</li> <li>• Parking brake.</li> <li>• Engine pre-heating system.</li> <li>• Fuel filter.</li> <li>• ABS brake system of tractor.</li> <li>• ABS brake system of trailer.</li> <li>• Differential lock.</li> <li>• Low air pressure (also audible).</li> <li>• Battery charging.</li> </ul>
4.	<i>Windscreen wipers</i>	<ul style="list-style-type: none"> <li>• 2 speed with interval switch.</li> </ul>
5.	<i>Reversing alarm</i>	<ul style="list-style-type: none"> <li>• The vehicle must be fitted with an audible reversing alarm. The reversing alarm shall sound immediately when the reverse gear is selected and shall be designed to meet SAE J994 standard (type D – 87db (A)) or equal.</li> </ul>
6.	<i>Cigarette lighter socket</i>	<ul style="list-style-type: none"> <li>• Provision of any cigarette lighter socket to be deleted.</li> </ul>
<b>Bodyworks</b>		
1.	<i>Vehicle body design</i>	<ul style="list-style-type: none"> <li>• Forward control.</li> <li>• Day Cab.</li> </ul>
2.	<i>Windscreen</i>	<ul style="list-style-type: none"> <li>• Laminated glass windscreen.</li> </ul>

<b>5.2 General Vehicle Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
3.	<b>Side windows</b>	<ul style="list-style-type: none"> <li>Tempered glass.</li> <li>Electrical operation of the passenger's side and drivers side windows to be provided from a control operable by the driver.</li> </ul>
4.	<b>Mirrors</b>	<ul style="list-style-type: none"> <li>External adjustable wing-mirrors to be fitted on the offside and near side.</li> <li>Both sides to be equipped with a separate wide-angle section below the main mirror.</li> <li>Blind Spot Mirror</li> <li>Close vicinity mirrors to be fitted at the top of the passenger door.</li> <li>A front view mirror fitted below the outer sun visor.</li> </ul>
5.	<b>Protection</b>	<ul style="list-style-type: none"> <li>Front under run protection.</li> <li>Closely tailored chassis side-skirts with flush panels.</li> <li>Side skirts to be reinforced to be able to act as side impact protection.</li> <li>Both front under run as well as side skirts must be at 400 mm (maximum) from the ground.</li> </ul>
6.	<b>Driver Seat</b>	<ul style="list-style-type: none"> <li>Driver seat with air suspension.</li> <li>Three point inertia seat belts must be directly fitted to the driver seat.</li> </ul>
7.	<b>Storage compartment</b>	<ul style="list-style-type: none"> <li>Outside storage compartment for gloves, helmet and shoes on the driver side of the vehicle.</li> <li>Compartment must be separated from the cab interior to allow contaminated gloves to be stored.</li> </ul>
<b>Electronics</b>		
1.	<b>Entertainment system</b>	<ul style="list-style-type: none"> <li>Radio/CD player of self-scanning type with touch button controls.</li> </ul>
2.	<b>GPS &amp; IVMS-system</b>	<ul style="list-style-type: none"> <li>Fully comply with LTD regulations.</li> </ul>

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5.2 General Vehicle Specification Requirement		
Item		Comments and/or motivation
	<b>Global Positioning System &amp; (In-Vehicle-Monitoring-System)</b>	<ul style="list-style-type: none"> <li>Vehicle to be equipped with an electronic data recorder. Must register the following data:</li> <li>Driver identification.</li> <li>Speed.</li> <li>Engine RPM.</li> <li>Acceleration and deceleration.</li> <li>Turning indicators.</li> <li>Windscreen wipers.</li> <li>Must register events at a time frame of at least one registration per second.</li> <li>Exact parameters to be provided in due course.</li> <li>GPS System</li> </ul>
3.	<b>Mobile Video Data Recorder</b>	<ul style="list-style-type: none"> <li>4 Video camera recorder as a minimum for recording the driving</li> <li>Web based, real time streaming</li> </ul>
4.	<b>Fatigue Detection System (FDS)</b>	<ul style="list-style-type: none"> <li>Real time face detection system for distraction and fatigue alert (yaw, drowsy, microsleep etc.)</li> <li>Alert to driver by sound, light and seat vibration.</li> <li>Report to fleet supervisor via web base report and trace back.</li> <li>Report system for traceable and analytical</li> </ul>
<b>Safety</b>		
1.	<b>Fire extinguisher</b>	<ul style="list-style-type: none"> <li>1 (One) x 2 kg Dry Chemical Powder extinguisher to be placed inside the driver cabin within easy reach of the driver seat.</li> <li>2 (Two) x 9 kg Dry Chemical Powder Fire Rating 6A-40B to be fitted immediately to the rear of the cab on the offside of the vehicle. The extinguisher must be accessible from ground level.</li> </ul>
2.	<b>First aid kit</b>	<ul style="list-style-type: none"> <li>One first aid kit to be placed inside the cabin within easy reach of the driver.</li> <li>It must be clearly indicated in Thai and English on visible locations where the first aid is located inside the cabin.</li> </ul>
3.	<b>Safety equipment</b>	<ul style="list-style-type: none"> <li>4 (Four) warning triangles / or orange cones.</li> <li>One high visibility safety vest.</li> <li>One explosion proof flashlight.</li> <li>Others safety and spill kit to comply by law</li> </ul>
4.	<b>Tools</b>	<ul style="list-style-type: none"> <li>Standard tools as provided from the manufacturer.</li> <li>Jack and appropriate tools to safely change a wheel.</li> </ul>

<b>5.2 General Vehicle Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
5.	<b>Hammer</b>	<ul style="list-style-type: none"> <li>One safety hammer reachable by the driver.</li> </ul>
<b>Additional equipment</b>		
1.	<b>Fifth Wheel</b>	<ul style="list-style-type: none"> <li>2" with no lateral movement.</li> </ul>
2.	<b>Mud guards</b>	<ul style="list-style-type: none"> <li>Mudguards rear to be fitted.</li> <li>Mudguard suited for specified fifth wheel height.</li> <li>Wheel flaps to be of spray suppressant material (i.e. bristles)</li> </ul>
3.	<b>Trailer connections</b>	<ul style="list-style-type: none"> <li>Two air line system.</li> <li>Air connections as defined in ISO-1728 (palm type connector).</li> <li>Electrical connection as defined in ISO-1185 (7-pin connector).</li> <li>Supplementary connection as defined in ISO 3731 (7-pin connector).</li> <li>ABS coupling as defined in ISO 7638 (7-pin connector).</li> </ul>
4.	<b>Air-condition</b>	<ul style="list-style-type: none"> <li>The vehicle must be supplied with sufficient air-conditioning capacity for the use of the vehicle type and size in a tropical climate with ambient temperatures up to 45 Degree. C.</li> <li>Environmental friendly cooling medium is to be used.</li> </ul>

**B. Semi-Trailer Tanker - Top loading for Crude Oil Transportation**

<b>5.3 Critical Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
5.3.1	<b>Semi-Trailer Tanker</b>	<ul style="list-style-type: none"> <li>Aluminum elliptical tank for hauling crude oil (UN code 1267).</li> <li>Suitable for operation with a 3-axle tractor unit.</li> <li>Will be used with a tractor unit equipped with air suspension.</li> <li>Will be used with a tractor unit equipped with ABS.</li> </ul>
5.3.2	<b>Legislation</b>	<p>The complete vehicle is to comply with:</p> <ul style="list-style-type: none"> <li>The laws and standards of Thailand.</li> <li>Thailand's National Provisions for Transport of Dangerous Goods by Road.</li> <li>ADR, Annex A and B, 2021.</li> </ul>
5.3.3	<b>Tank shape &amp; Capacity</b>	<ul style="list-style-type: none"> <li>Elliptical</li> <li>Minimum Tank volume at least 40,000 liters of liquid to be loaded plus 3% Ullage.</li> <li>At each of the three manholes with filling covers an ullage marker must be visible</li> </ul>



**5.3 Critical Semi-Trailer Tanker Specification Requirement**

Item		Comments and/or motivation
5.3.4	<i>Number of tank compartments</i>	<ul style="list-style-type: none"> <li>1(one).</li> </ul>
5.3.5	<i>Trailer height</i>	<ul style="list-style-type: none"> <li>3.30 meters maximum.</li> </ul>

**5.4 General Semi-Trailer Tanker Specification Requirement**

Item		Comments and/or motivation
<b>General</b>		
1.	<i>Operating conditions</i>	<ul style="list-style-type: none"> <li>Tropical climate with ambient temperatures up to 45 degrees C.</li> <li>Black top roads.</li> <li>Tank to operate at atmospheric pressure.</li> <li>Tank maximum operating temperature at 60 degree C.</li> </ul>
2.	<i>Specific gravity</i>	<ul style="list-style-type: none"> <li>The specific gravity of the crude oil is 0.805</li> </ul>
<b>Tank design and construction</b>		
1.	<i>Weights</i>	<ul style="list-style-type: none"> <li>Tanker must be suitable for operation with a 3-axle tractor unit at a GCW of 50,500 kg.</li> <li>Kerb weight of the tractor unit approx.: 8000 kg (this is excluding driver and fuel).</li> <li>Kingpin maximum: 15,000 kg (exact figure to be confirmed).</li> </ul>
2.	<i>Height of 5th wheel</i>	<ul style="list-style-type: none"> <li>The height of the fifth wheel on the tractor will be at 1265mm.</li> </ul>
<b>Tank equipment</b>		
1.	<i>Manholes / covers</i>	<ul style="list-style-type: none"> <li>20" manhole covers.</li> <li>4 (four) manholes with 10" fill cover for top loading.</li> <li>A pressure / vacuum breather valve to be fitted to each man lid.</li> <li>Breather (vent) valve to be equipped with rollover seal off's.</li> </ul>
2.	<i>Emergency valves</i>	<ul style="list-style-type: none"> <li>4" Emergency (foot) valves.</li> <li>non-pressured balance type.</li> <li>Valves to be mechanically operated.</li> <li>Valves to be supplied without strainers.</li> </ul>

<b>5.4 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
3.	<b>Outlet valves</b>	<ul style="list-style-type: none"> <li>• 4" Male API dry break quick coupling.</li> <li>• To mount on the kerb side (LH) of the vehicle.</li> <li>• Operations of valve mechanical with detachable lever.</li> <li>• Hose connection 4" ANSI 150 LBS CS Swivel flange one end and TTMA flange on</li> <li>• Coupling face angled downwards.</li> <li>• Accident damage protection to comply with DOT, NFPA and ADR.</li> </ul>
<b>Running gear</b>		
1.	<b>Axles</b>	<ul style="list-style-type: none"> <li>• Number of axles: 3</li> <li>• Axles load capacities to be rated for 9000 kg per axle.</li> <li>• Axles distances between any two of the three closely spaced axles must be at least 1.3 meters.</li> <li>• Steering axles not required.</li> <li>• Lift axle devices not required.</li> </ul>
2.	<b>Suspension</b>	<ul style="list-style-type: none"> <li>• Air suspension.</li> </ul>
3.	<b>Brake system</b>	<ul style="list-style-type: none"> <li>• Compressed air power brakes.</li> <li>• Drum brakes or Disc Brake</li> <li>• Automatic slack adjusters.</li> <li>• Load sensing valve to provide optimum braking in both loaded and unloaded conditions.</li> <li>• ABS-system, electronically regulated, separate sensors.</li> <li>• Double diaphragm actuators.</li> <li>• Wire pull drain valves to air reservoirs.</li> </ul>
4.	<b>Wheels / tyres</b>	<ul style="list-style-type: none"> <li>• Steel wheels designed for use with tubeless tyres.</li> <li>• Wheel size: 8.25-22.5</li> <li>• Tubeless radial tyres of the same type and profile with all weather tread pattern.</li> <li>• Tyre size: 295/80R22.5</li> <li>• Tyre brand: Continental/ Bridgestone / Michelin / or Equivalent</li> <li>• All axles twin mounted tyres.</li> </ul>
5.	<b>Mud wings/guards</b>	<ul style="list-style-type: none"> <li>• To be of aluminum or a material which has demonstrated to pass the "Warrington Fire research test".</li> <li>• Spray suppression system to comply with EC directive (91/226/EEC).</li> </ul>

<b>5.4 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
<b>Semi-trailer equipment</b>		
1.	<b>Trailer connections</b>	<ul style="list-style-type: none"> <li>Two air line system.</li> <li>Air connections as defined in ISO-1728 (palm type connector).</li> <li>Electrical connection as defined in ISO-1185 (7-pin connector).</li> <li>Supplementary connection as defined in ISO 3731 (7-pin connector).</li> </ul>
2.	<b>Kingpin</b>	<ul style="list-style-type: none"> <li>Kingpin 50 mm.</li> <li>Kingpin to be of a bolt-in type (underside of skid plate).</li> <li>Kingpin to comply with ISO-337: 1981: Road vehicles -50 semi-trailer fifth wheel coupling pin - Basic and mounting / inter-</li> </ul>
3.	<b>Support legs</b>	<ul style="list-style-type: none"> <li>Landing legs to be complied with legal requirements.</li> </ul>
4.	<b>Trestle</b>	<ul style="list-style-type: none"> <li>Trestle to be made of steel.</li> <li>Manufacturer to provide a total of four (4) trestles with the number of semi-trailers ordered.</li> </ul>
<b>Side guards and rear bumper</b>		
1.	<b>Rear under run protection</b>	<ul style="list-style-type: none"> <li>To comply with ADR, DOT and NFPA requirements as a minimum.</li> <li>Maximum distance between lower edge of the bumper and the ground 400 mm.</li> <li>The rear under run bumper must be constructed so it is capable of with standing a force equivalent to half the gross weight of the trailer or a maximum of 10 Tones, whichever is the lesser, without deflecting more than 400 mm measured from the rear most point of the trailer – not from the original vertical position of the bumper.</li> <li>Bumper must extend within 100 mm of the outermost width of the rear axle (i.e. the outermost face of the tyres), but must not in any case extend beyond the outermost face of the tyres.</li> </ul>

<b>5.4 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
2.	<b>Side guards</b>	<ul style="list-style-type: none"> <li>Maximum distance between lower edge of the side guards and the ground 400-450mm.</li> <li>Top of the side guards not less than 1100 mm from the ground.</li> <li>Side guards must be constructed so they are capable of with standing a force equivalent to 3.6 Tones side impact without deflecting more than 300 mm. (TRL input required).</li> <li>These guards must be fitted with a flush panel surface to avoid any risk of trapping motorcycle handlebars.</li> <li>Position of the side guards (additional information):                         <ul style="list-style-type: none"> <li>The inboard maximum from the outer face of the tyres is 30mm.</li> <li>Distance to the trailer tyres should be less than 200 mm.</li> <li>Gap between tractor wheels and trailer side guards shall be minimized.</li> <li>Exact distance to the tractor to be confirmed by manufacturer.</li> <li>Note that a trailer trestle will be used.</li> </ul> </li> </ul>
<b>Electrical system</b>		
1.	<b>System</b>	<ul style="list-style-type: none"> <li>24 Volt electrical system.</li> <li>Electrical system to comply with ADR requirements.</li> </ul>
2.	<b>Lighting system Rear</b>	<ul style="list-style-type: none"> <li>All lights to be of the LED type.</li> <li>Two lower stop / rear lights on each vehicle side.</li> <li>Two lower turning indicators on each vehicle side.</li> <li>Rear lights not more than 400 mm from the outside edge of the vehicle.</li> <li>In addition</li> <li>One high positioned stop/rear light and turning indicator on each vehicle side. These lights to be between 2000 and 2200 mm from the ground.</li> </ul>

### C. Prime Mover Tractor unit

5.5 Used for the hauling of road tanker for produced water transportation as same 5.1 above

**D. Semi-Trailer Tanker - Top loading for Produced water Transportation**

<b>5.6 Critical Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
5.6.1	<i>Semi-Trailer Tanker</i>	<ul style="list-style-type: none"> <li>Steel tank for hauling crude oil (UN code 1267).</li> <li>Suitable for operation with a 3-axle tractor unit.</li> <li>Will be used with a tractor unit equipped with air suspension.</li> <li>Will be used with a tractor unit equipped with ABS.</li> </ul>
5.6.2	<i>Legislation</i>	The complete vehicle is to comply with: <ul style="list-style-type: none"> <li>The laws and standards of Thailand.</li> <li>Thailand's National Provisions for Transport of Dangerous Goods by Road.</li> <li>ADR, Annex A and B, 2021.</li> </ul>
5.6.3	<i>Tank shape &amp; Capacity</i>	<ul style="list-style-type: none"> <li>Elliptical</li> <li>Minimum Tank volume at least 38,000 liters of liquid to be loaded plus 3% Ullage.</li> <li>At each of the three manholes with filling covers an ullage marker must be visible</li> </ul>
5.6.4	<i>Number of tank compartments</i>	<ul style="list-style-type: none"> <li>1(one).</li> </ul>
5.6.5	<i>Trailer height</i>	<ul style="list-style-type: none"> <li>3.30 meters maximum.</li> </ul>

<b>5.7 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
<b>General</b>		
1.	<i>Operating conditions</i>	<ul style="list-style-type: none"> <li>Tropical climate with ambient temperatures up to 45 degrees C.</li> <li>Black top roads.</li> <li>Tank to operate at atmospheric pressure.</li> <li>Tank maximum operating temperature at 60 degree C.</li> </ul>
2.	<i>Specific gravity</i>	<ul style="list-style-type: none"> <li>The specific gravity of the produced water is 1.014 (estimate)</li> </ul>
<b>Tank design and construction</b>		



<b>5.7 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
1.	<b>Height of 5<sup>th</sup> wheel</b>	<ul style="list-style-type: none"> <li>The height of the fifth wheel on the tractor will be at 1265mm.</li> </ul>
<b>Tank equipment</b>		
1.	<b>Manholes covers</b>	<ul style="list-style-type: none"> <li>20" manhole covers.</li> <li>4 (four) manholes with 10" fill cover for top loading.</li> <li>A pressure / vacuum breather valve to be fitted to each man lid.</li> <li>Breather (vent) valve to be equipped with rollover seal off's.</li> </ul>
2.	<b>Emergency valves</b>	<ul style="list-style-type: none"> <li>4" Emergency (foot) valves.</li> <li>non-pressured balance type.</li> <li>Valves to be mechanically operated.</li> <li>Valves to be supplied without strainers.</li> <li>Total number of emergency (foot) valves 2 (two).</li> </ul>
3.	<b>Outlet valves</b>	<ul style="list-style-type: none"> <li>4" Male API dry break quick coupling.</li> <li>To mounted on the kerb side (LH) of the vehicle.</li> <li>Operations of valve mechanical with detachable lever.</li> <li>Hose connection 4" ANSI 150 LBS CS Swivel flange one end and TTMA flange on</li> <li>Coupling face angled downwards.</li> </ul>
<b>Running gear</b>		
1.	<b>Axles</b>	<ul style="list-style-type: none"> <li>Number of axles: 3</li> <li>Axles load capacities to be rated for 9000 kg per axle.</li> <li>Axles distances between any two of the three closely spaced axles must be at least 1.3 meters.</li> <li>Steering axles not required.</li> <li>Lift axle devices not required.</li> <li>Axle laser alignment certificate to be provided.</li> </ul>
2.	<b>Suspension</b>	<ul style="list-style-type: none"> <li>Leaf Spring or Air Suspension</li> </ul>
3.	<b>Brake system</b>	<ul style="list-style-type: none"> <li>Compressed air power brakes.</li> <li>Drum brakes or Disc Brake</li> <li>Automatic slack adjusters.</li> <li>Load sensing valve to provide optimum braking in both loaded and unloaded conditions.</li> <li>ABS-system, electronically regulated, separate sensors.</li> <li>Double diaphragm actuators.</li> </ul>
		<ul style="list-style-type: none"> <li>Wire pull drain valves to air reservoirs.</li> </ul>

<b>5.7 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
4.	<b><i>Wheels / tyres</i></b>	<ul style="list-style-type: none"> <li>• Steel wheels designed for use with tubeless tyres.</li> <li>• Wheel size: 8.25-22.5</li> <li>• Tubeless radial tyres of the same type and profile with all weather tread pattern.</li> <li>• Tyre size: 295/80R22.5</li> <li>• Tyre brand: Continental/ Bridgestone / Michelin / or Equivalent</li> <li>• All axles twin mounted tyres.</li> </ul>
5.	<b><i>Mud wings/guards</i></b>	<ul style="list-style-type: none"> <li>• To be of aluminum or a material which has demonstrated to pass the "Warrington Fire research test".</li> <li>• Spray suppression system to comply with EC directive (91/226/EEC).</li> <li>• Wheel flaps to be of spray suppressant material (i.e. bristles).</li> </ul>
<b>Semi-trailer equipment</b>		
1.	<b><i>Trailer connections</i></b>	<ul style="list-style-type: none"> <li>• Two air line system.</li> <li>• Air connections as defined in ISO-1728 (palm type connector).</li> <li>• Electrical connection as defined in ISO-1185 (7-pin connector).</li> <li>• Supplementary connection as defined in ISO 3731 (7-pin connector).</li> <li>• ABS coupling as defined in ISO 7638 (7-pin connector).</li> </ul>
2.	<b><i>Kingpin</i></b>	<ul style="list-style-type: none"> <li>• Kingpin 50 mm.</li> <li>• Kingpin to be of a bolt-in type (underside of skid plate).</li> <li>• Kingpin to comply with ISO-337: 1981: Road vehicles -50 semi-trailer fifth wheel coupling pin - Basic and mounting / interchangeability dimensions.</li> </ul>
3.	<b><i>Support legs</i></b>	<ul style="list-style-type: none"> <li>• Landing legs to be complied with legal requirements.</li> </ul>
4.	<b><i>Trestle</i></b>	<ul style="list-style-type: none"> <li>• Trestle to be made of steel.</li> <li>• Manufacturer to provide a total of four (4) trestles with the number of semi-trailers ordered.</li> </ul>
<b>Side guards and rear bumper</b>		

<b>5.7 General Semi-Trailer Tanker Specification Requirement</b>		
<b>Item</b>		<b>Comments and/or motivation</b>
1.	<b><i>Rear under run protection</i></b>	<ul style="list-style-type: none"> <li>• To comply with ADR, DOT and NFPA requirements as a minimum.</li> <li>• Maximum distance between lower edge of the bumper and the ground 400 mm.</li> <li>• The rear under run bumper must be constructed so it is capable of with standing a force equivalent to half the gross weight of the trailer or a maximum of 10 Tones, whichever is the lesser, without deflecting more than 400 mm measured from the rear most point of the trailer – not from the original vertical position of the bumper.</li> <li>• Bumper must extend within 100 mm of the outermost width of the rear axle (i.e. the outermost face of the tyres), but must not in any case extend beyond the outermost face of the tyres.</li> </ul>
2.	<b><i>Side guards</i></b>	<ul style="list-style-type: none"> <li>• Maximum distance between lower edge of the side guards and the ground 400-450mm.</li> <li>• Top of the side guards not less than 1100 mm from the ground.</li> <li>• Side guards must be constructed so they are capable of with standing a force equivalent to 3.6 Tones side impact without deflecting more than 300 mm. (TRL input required).</li> <li>• These guards must be fitted with a flush panel surface to avoid any risk of trapping motorcycle handlebars.</li> <li>• Position of the side guards (additional information): <ul style="list-style-type: none"> <li>○ The inboard maximum from the outer face of the tyres is 30mm.</li> <li>○ Distance to the trailer tyres should be less than 200 mm.</li> <li>○ Gap between tractor wheels and trailer side guards shall be minimized.</li> <li>○ Exact distance to the tractor to be confirmed by manufacturer.</li> <li>○ Note that a trailer trestle will be used.</li> </ul> </li> </ul>
<b>Electrical system</b>		
1.	<b><i>System</i></b>	<ul style="list-style-type: none"> <li>• 24 Volt electrical system.</li> <li>• Electrical system to comply with ADR requirements.</li> </ul>

5.7 General Semi-Trailer Tanker Specification Requirement		
Item		Comments and/or motivation
2.	<b>Lighting system Rear</b>	<ul style="list-style-type: none"><li>• All lights to be of the LED type.</li><li>• Two lower stop / rear lights on each vehicle side.</li><li>• Two lower turning indicators on each vehicle side.</li><li>• Rear lights not more than 400 mm from the outside edge of the vehicle.</li><li>• In addition</li><li>• One high positioned stop/rear light and turning indicator on each vehicle side. These lights to be between 2000 and 2200 mm from the ground.</li></ul>

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## เอกสารแนบที่ 4

สำเนาหนังสือนำเสนอรายงาน

ผลการปฏิบัติตามมาตรการฯ

ระหว่างเดือนมกราคม-ธันวาคม 2566

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PTTEP International Limited

A Company of PTTEP Group

ที่ ปตท.สผ.อ. 13250/00-1267/2024

26 มกราคม 2567

เรื่อง ขอส่งรายงานผลการปฏิบัติตามมาตรการการป้องกันและแก้ไขผลกระทบและมาตรการติดตาม  
ตรวจสอบคุณภาพสิ่งแวดล้อมระยะผลิตปิโตรเลียม ระหว่างเดือนมกราคมถึงเดือนธันวาคม  
ประจำปี 2566 แปลง PTTEP1, L53/43 และ L54/43 โครงการสุพรรณบุรี

เรียน อธิบดีกรมเชื้อเพลิงธรรมชาติ

ตามที่ บริษัท ปตท.สผ. อินเตอร์เนชั่นแนล จำกัด ผู้รับสัมปทานและดำเนินการตามสัมปทาน  
ปิโตรเลียมเลขที่ 2/2528/27 เมื่อวันที่ 5 กุมภาพันธ์ พ.ศ. 2528 และสัมปทานปิโตรเลียมเลขที่ 2/2547/68  
เมื่อวันที่ 22 มกราคม พ.ศ. 2547 ครอบคลุมพื้นที่แปลง PTTEP1, L53/43 และ L54/43 ได้เสนอรายงานการ  
วิเคราะห์ผลกระทบสิ่งแวดล้อม ให้สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม และ  
คณะกรรมการผู้ชำนาญการด้านพัฒนาปิโตรเลียมพิจารณาตามลำดับขั้นตอนการพิจารณา  
รายงาน โดยคณะกรรมการผู้ชำนาญการฯ มีมติให้ความเห็นชอบรายงานการวิเคราะห์ผลกระทบ  
สิ่งแวดล้อม และให้ปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม และมาตรการติดตาม  
ตรวจสอบผลกระทบสิ่งแวดล้อมอย่างเคร่งครัด

ในปี 2566 บริษัทฯ ได้มอบหมายให้ บริษัท ยูโนเด็ค แอนนาลิสต์ แอนด์ เอ็นจิเนียริ่ง คอนซัลแตนท์  
จำกัด เป็นผู้ดำเนินการและเป็นผู้จัดเตรียมรายงานผลฯ ดังกล่าว บัดนี้ บริษัท ยูโนเด็ค แอนนาลิสต์ แอนด์  
เอ็นจิเนียริ่ง คอนซัลแตนท์ จำกัด ได้จัดเตรียมรายงานเสร็จเรียบร้อยแล้ว บริษัทฯ จึงขอส่งรายงาน  
ดังกล่าวมาพร้อมกับหนังสือฉบับนี้เพื่อใช้อ้างอิงต่อไป

จึงเรียนมาเพื่อโปรดทราบ

ขอแสดงความนับถือ



(นายอนันต์ อมรประภาวัฒน์)

ผู้ช่วยกรรมการผู้จัดการใหญ่ โครงการผลิตปิโตรเลียม - ประเทศไทย

โครงการสุพรรณบุรี

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โทรศัพท์ 0-2537-4000 ต่อ 810-5015

PSP/S, CEN/O



สิ่งที่แนบมาด้วย: รายงานจำนวน 2 ชุด ดังนี้

1. รายงานผลการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
และมาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม จำนวน 3 เล่มรายงาน  
และ CD-ROM จำนวน 3 แผ่น
  - โครงการเจาะสำรวจและผลิตปิโตรเลียม แปลงสำรวจบนบกหมายเลข  
L53/43 และ L54/43 จังหวัดสุพรรณบุรี ระยะผลิต
  - โครงการผลิตปิโตรเลียมแหล่งหนองผักชี แหล่งหัวไม้ซุง แหล่งบ้านดอน  
สนวน และแหล่งบ้านดอนตะไค้ แปลง L53/43 และ L54/43 จังหวัด  
สุพรรณบุรี ระยะผลิต
  - โครงการผลิตปิโตรเลียม แหล่งหนองผักชี และหัวไม้ซุง แปลง L54/43  
จังหวัดสุพรรณบุรี ระยะผลิต
  - โครงการผลิตปิโตรเลียมแหล่งหนองผักชี และแหล่งหนองผักชีส่วน  
ขยาย แปลง L54/43 จังหวัดสุพรรณบุรี ระยะผลิต
  - โครงการผลิตปิโตรเลียมแหล่งอุทองและแหล่งสังฆะแปลง PTTEP1  
จังหวัดสุพรรณบุรี ระยะผลิต
2. รายงานผลการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
และมาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม โครงการผลิตปิโตรเลียม  
แหล่งกำแพงแสน แปลง PTTEP1 จังหวัดนครปฐม ระยะผลิต จำนวน 3 เล่ม  
รายงาน และ CD-ROM จำนวน 3 แผ่น

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# เอกสารแนบที่ 5

Audit and Review Standard

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**PTTEP**

PTT Exploration and Production Public Company Limited

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## **Audit and Review Standard**


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**Document Number: 11038-STD-SSHE-701-R06**

**July 2023**

Approval Register	
<b>Document Subject</b>	Audit and Review Standard
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<b>Document Owner</b>	Safety, Security, Health and Environment Division (CSH)
<b>Prepared by</b>	Wannoptida Tiengtrong (Engineer, Planning and Assurance)
<b>Effective Date</b>	July 2023

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Approval			
	Name	Signature	Date
<b>Document Owner</b>	Ponlasak Apiwattanalungarn SVP, Safety, Security, Health and Environment Division		30-Jun-2023
<b>Document Approval</b>	Montri Rawanchaikul Chief Executive Officer		07.07.23

This document shall be reviewed every 5 years from the date of approval or revised earlier if necessary.

Revision History			
Rev.	Description of Revision	Authorized by	Effective Date
0	New	CEO	September 2000
1	<p>This "SSHE Audit and Review Standard (SSHE MS.S.15) replaces the HSE Policies and Procedures Manual Part B 6 "HSE Reviews and SSHE Audits (SP.PHS.006/00-R0)".</p> <p>Changes from the last version are:</p> <ul style="list-style-type: none"> <li>Detailed the process of audit and review activities.</li> <li>Specified the structure of audit report.</li> <li>Defined rating system for evaluating the degree of conformance against 7 SSHE MS elements resulted from top management visit.</li> </ul>	CEO	June 2009
2	<ul style="list-style-type: none"> <li>Position titles changed according to the company organizational as of February 2011.</li> <li>Roles and responsibilities of Asset SSHE Advisor and corporate SSHE Engineer included.</li> <li>Audit process and the detailed requirements to cover all essential elements according to ISO19011 for example manage the audit program, evaluate the auditor performance, etc.</li> <li>Description of SSHE Council Meeting and Top management committee meeting is inclusive as one of top management review activities.</li> </ul>	CEO	March 2011
3	<ul style="list-style-type: none"> <li>Expand the Standard in line with the requirements as written in the SSHE MS.</li> <li>Restructured Text and headings.</li> <li>Removed report writing template.</li> <li>Modified the Findings assessment and evaluation criteria.</li> </ul>	CEO	December 2011

Revision History			
Rev.	Description of Revision	Authorized by	Effective Date
4	<ul style="list-style-type: none"> <li>Updated referenced documents - added SSHE MS documents and deleted non-applicable international references.</li> <li>Modified Appendix A: Audit Types, Frequency, Leader, and SSHE MS reviews every 5 years instead of 3 yearly. Audits conducted entirely by other departments removed e.g. aviation audits.</li> <li>Modified evaluation criteria for SSHE MS audits based on 7 elements of SSHE MS and control acceptability.</li> <li>Modified the Audit Terms of Reference template example to be SSHE MS audit (other templates are available from TPA).</li> <li>Updated names as per organization change and SSHE Operating Model.</li> <li>Minor text upgrades.</li> </ul>	CEO	September 2016
5	<ul style="list-style-type: none"> <li>Added more specific terminology and definitions related to the audit process in accordance with ISO19011:2018.</li> <li>Amended the position title, role and responsibilities</li> <li>Revised the requirement structure and processes of audit and review to align with ISO19011:2018 and described on how to manage and implement a SSHE audit program.</li> <li>Revised the qualification of audit team leader and audit team.</li> <li>Added timeframe of actions taken.</li> <li>Added the Appendix C: Decision Matrix Guide for Combined Audit Program.</li> <li>Revised the audit finding classification for evaluating the audit finding severity.</li> <li>Discarded the evaluation of control acceptability criteria.</li> <li>Discarded the Appendix D: Verbs to Use for Recommendations.</li> </ul>	CEO	October 2018

Revision History			
Rev.	Description of Revision	Authorized by	Effective Date
	<ul style="list-style-type: none"> <li>Modified the Audit Terms of Reference template and Appendix B: Minimum Frequency Requirement for SSHE Audit and Review.</li> <li>Added the Management review requirements.</li> <li>Added the appendix F for example of audit finding report.</li> </ul>		
6	<ul style="list-style-type: none"> <li>Superseded the Nonconformity, Corrective and Preventive Action Procedure (10018-PDR-SSHE-701/03-R02).</li> <li>Revised the finding severity classification criteria, the selection audit team members process and auditor qualifications, list of SSHE audits and frequency, roles &amp; responsibilities.</li> <li>Added the new SSHE Compliance Assurance Model, SSHE MS Verification, and Nonconformity identification and reporting channel.</li> <li>Discarded the Appendix A: SSHE Audit Program template, Appendix C: Decision matrix guide for determining the combined audit program</li> <li>Added Appendix E: Example of SSHE MSV toolkit &amp; scoring book</li> </ul>	CEO	July 2023

## TABLE OF CONTENTS

INTRODUCTION .....	1
1.0 PURPOSE.....	1
2.0 SCOPE.....	1
3.0 DEFINITIONS AND ACRONYMS .....	1
3.1 TERMS AND DEFINITIONS .....	1
3.2 ACRONYMS .....	1
REQUIREMENTS.....	2
4.0 MANAGING AN AUDIT PROGRAM .....	2
4.1 SSHE COMPLIANCE ASSURANCE MODEL .....	2
4.2 ESTABLISHING AUDIT PROGRAM .....	4
4.3 IMPLEMENTING AUDIT PROGRAM .....	4
4.4 MONITORING AUDIT PROGRAM .....	6
4.5 REVIEWING AND IMPROVING AUDIT PROGRAM.....	7
5.0 CONDUCTING AN AUDIT .....	8
5.1 INITIATING AUDIT.....	8
5.2 PREPARING AUDIT ACTIVITIES .....	8
5.3 CONDUCTING AUDIT ACTIVITIES .....	9
5.4 PREPARING AND DISTRIBUTING AUDIT REPORT .....	15
5.5 COMPLETING AUDIT.....	15
5.6 CONDUCTING AUDIT FOLLOW-UP .....	15
6.0 REVIEW .....	16
6.1 SSHE MS VERIFICATION.....	16
6.2 MANAGEMENT REVIEW .....	17
7.0 NONCONFORMITY, CORRECTIVE AND PREVENTIVE ACTION .....	17
7.1 NONCONFORMITY IDENTIFICATION .....	17
ROLES AND RESPONSIBILITIES.....	20
REFERENCES.....	24
APPENDICES .....	25
APPENDIX A: MINIMUM REQUIREMENTS FOR ESSENTIAL SSHE AUDITS.....	25
APPENDIX B: EXAMPLES FOR AUDITOR EVALUATION CRITERIA.....	27



**Table of Contents (continue)**

APPENDIX C: EXAMPLE SSHE MS TERMS OF REFERENCE (EDITED AS APPROPRIATE) ...	29
APPENDIX D: EXAMPLE INTERNAL AUDIT CHECKLIST AND FINDING RECORD (EDITED AS APPROPRIATE).....	31
APPENDIX E: EXAMPLE OF SSHE MSV TOOLKIT & SCORING BOOK.....	32
APPENDIX F: EXAMPLE AUDIT FINDING REPORT .....	33



## INTRODUCTION

### 1.0 PURPOSE

This standard describes the requirements for audit and review plans, the planning, execution and closeout of audits and continuous improvement of the Safety, Security, Health and Environment (SSHE) auditing process.

It applies to all independent SSHE audits and internal SSHE audits, which form part of a Corporate, Division and standard SSHE plan. The audits and reviews carried out within the PTTEP SSHE Corporate, Division and Standard plans are provided by approved assurance providers. All audits listed in PTTEP SSHE Corporate, Division and Standard plans shall be conducted following this standard.

It is recommended that this standard may also be used as a guideline for those audits and inspections undertaken outside the SSHE plans.

Audit and Review is the 7<sup>th</sup> element of the SSHE Management System (SSHE MS) and the standard sets out to have a uniform way of managing SSHE auditing in PTTEP to determine:

1. Whether or not SSHE MS elements and activities conform to planned arrangements and are implemented effectively
2. The effective functioning of the SSHE MS in fulfilling the Asset's SSHE Policy, objectives and performance criteria
3. Compliance with relevant legislative requirements
4. Identification of improvement areas leading to progressively better SSHE management

The SSHE MS and its performance shall be reviewed at planned intervals to ensure its suitability and effectiveness.

### 2.0 SCOPE

This document applies to all PTTEP operating assets, projects, and subsidiaries where it has control as the operator.

### 3.0 DEFINITIONS AND ACRONYMS

#### 3.1 TERMS AND DEFINITIONS

All terms and definitions in this document can be reached at [SSHE Intranet > SSHE MS > SSHE Terms and Definitions](#).

#### 3.2 ACRONYMS

All acronyms in this document are available at [SSHE Intranet > SSHE MS > SSHE Acronym](#).



## REQUIREMENTS

### 4.0 MANAGING AN AUDIT PROGRAM

The hierarchy of the SSHE documents complies with Document Management Standard (12086-STD-001).

#### 4.1 SSHE COMPLIANCE ASSURANCE MODEL

The compliance assurance model is a part of PTTEP SSHE Management System implementation. PTTEP adopted the three lines of control model for applying to the SSHE assurance concept. This model provides a helpful way to understand how SSHE management and assurance functions operate and interact. The model shows the boundaries between roles and responsibilities in managing and assuring SSHE risks.

##### **The first line of control:**

The 1<sup>st</sup> line contains operational functions that directly own and manage services and their associated risks. The organization's first line of control comprises teams in operational or service delivery and support functions. Typically these are operational staff who manage services and risks as part of their day-to-day work.

Compliance with relevant SSHE requirements and regulations should be inherent in operational processes and procedures. This line is called "Doing & Controlling".

##### **The second line of control:**

The 2<sup>nd</sup> line comes from the oversight of management activity, separate from those responsible for delivery but not independent of the organization's management chain. The second line of assurance comes from an individual who is not doing the work they are checking. This line is called "Checking".

##### **The third line of control:**

The 3<sup>rd</sup> line contains functions that provide independent and objective assurance regarding the integrity and effectiveness of risk management and related controls in the organization. It typically comes from independent auditors who can be internal or external. We have called this line "Verifying".

The main roles of the 3<sup>rd</sup> line are to ensure that the first two lines are operating effectively, advise how they could be improved, and report to the management.

SSHE Internal audit is the key function in the third line of control. Internal audit provides risk-based evaluation of the effectiveness of SSHE risk management, governance, and internal control in the organization.

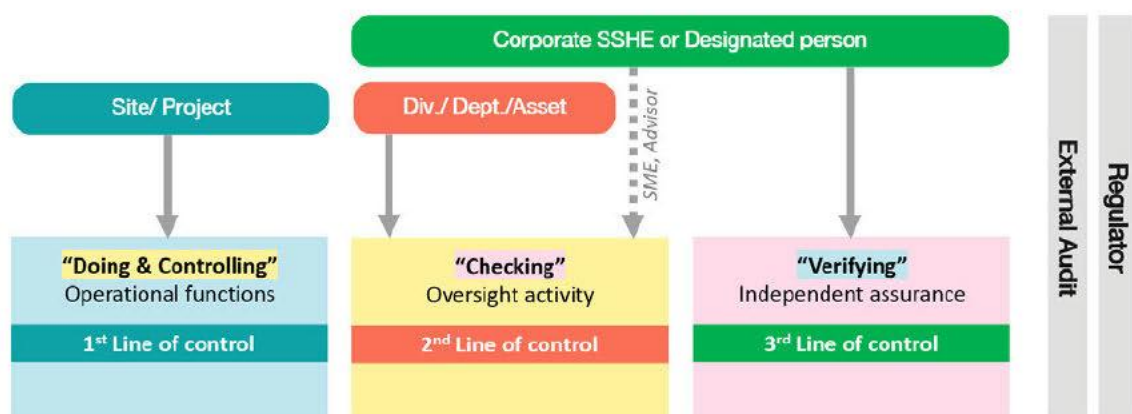
The third line of control also interfaces with other external providers of independent and objective assurance, including external audit, and regulators.

The table below describes the three lines of control model in more detail.

**Table 1: Summary of Three Lines of Control**

Line of Control	Involves	Example
1 <sup>st</sup> Line (Doing & Controlling)	Operational functions that directly own and manage services and their associated risks. (e.g., Site personnel -- Team Leader, Supervisor, Superintendent, Field Manager, Site SSHE, etc.)	Implementation of processes to meet the SSHE MS requirements, such as a business compliance self-assessment process, site inspection, PTW audit, MOC audit, hygiene inspection, evaluation of compliance, etc.
2 <sup>nd</sup> Line (Checking)	Oversight of management activity, separate from those responsible for delivery but not independent of the organization's management chain. (e.g., Division/Department SSHE, International Asset SSHE, etc.)	Oversight activities, such as ISO internal audit, Contractor audit, Internal EIA compliance, Legal compliance audit, Contract holder verification, etc.
3 <sup>rd</sup> Line (Verifying)	Functions that provide independent and objective assurance regarding the integrity and effectiveness of risk management and related controls in the organization. (Corporate SSHE or assigned person)	SSHE MS verification, Internal OEMS assessment, Operational Technical Review, etc.

The picture below shows the linkage between each line of control that could work in the organization.


**Figure 1: PTTEP SSHE Compliance Assurance Model**

## 4.2 ESTABLISHING AUDIT PROGRAM

PTTEP Corporate SSHE, Divisions/Departments, and Assets shall establish the Annual SSHE Audit Programs for audits and SSHE MS reviews. The Annual SSHE Audit Programs can be embedded in the Divisions/Departments and Assets annual SSHE plan.

The 12-month look-ahead schedule of the audits and reviews shall be communicated to all concerned parties as appropriate. The criteria for selecting an asset/project or location to conduct the audit should be taken into account, but not limited to:

- SSHE performance records or concerns with SSHE culture
- Crucial or high-risk activities are taking place
- Company focused strategy or other specific requirements
- New asset or project
- The time since their previous SSHE audit

The Planning and Assurance Section shall maintain a 5-Year rolling audit program of the 3<sup>rd</sup> Line for the SSHE audits that can be planned in advance. The 5-Year rolling plan shall be communicated to the relevant parties, but the audit programs are subject to change at reasonable discretion.

Minimum frequency requirements for audits, reviews and SSHE MS reviews are shown in Appendix A, for the audit/review types and frequencies. The frequency may change when there have been significant changes in the organization, in relevant criteria, in configuration, nature and level of activity and/or performance.

## 4.3 IMPLEMENTING AUDIT PROGRAM

To achieve the established audit program, the operational planning and the coordination of all activities within the program shall be implemented as planned.

The assigned audit team leader of each audit shall manage and implement his/her responsible audit program as follows:

- Communicate the relevant parts of the audit program to auditee and concerned parties
- Define objectives, scope and criteria for each individual audit
- Select audit methods
- Coordinate and schedule audits
- Ensure the audit teams have the necessary competence
- Provide necessary resources to the audit team
- Ensure the conduct of audit in accordance with the audit program, managing all operational risks, opportunities and unexpected events, as they arise during the deployment of the program



- Ensure relevant documented information regarding the audit activities is properly managed and maintained, e.g. audit TOR, audit report, etc.

#### **4.3.1 Selecting and Determining Audit Methods**

The audit can be performed on-site, remotely or as a combination. Conducting multiple audits in a single visit can minimize time and travel costs. The assigned audit team leader shall select and determine the methods for effectively and efficiently conducting an SSHE audit and review.

##### **4.3.1.1 Joint Audit**

Where two or more auditing organizations conduct a joint audit of the same auditee, the assigned audit team leaders managing the different audit programs shall agree on the audit methods and consider implications for resourcing and planning the audit.

##### **4.3.1.2 Combined Audit**

Conducting a “combined audit” when an auditee is audited against the requirements of two or more management systems Standards, using a combined audit method depends on the audit objectives, scope and criteria.

Example: SSHE MS internal audit can be combined with the ISO14001 & ISO45001 internal audit and Legal compliance audit to audit the same auditee in a single visit because the audit objectives and scope are the same perspectives.

#### **4.3.2 Selecting Audit Team Members**

The success of an audit is fully dependent on the composition of the audit team. Audit team members have to be master in their line of competency in order to identify gaps and provide good recommendations to close the gaps.

The auditors should be independent of the audited entity or operations being audited. To achieve the SSHE audit objectives, the necessary competence of the auditor for the 2<sup>nd</sup> Line and the 3<sup>rd</sup> Line shall be considered:

##### **Audit Team Leader**

- a) Pass the training on PTTEP SSHE Internal Auditor to ensure understanding of the Audit and Review Standard requirements or equivalent.
- b) Have at least five (5) years' work experience in oil and gas production and operations or other related fields.
- c) Possess technical knowledge of oil and gas production, operations, or other related fields relevant to the audit scheme.
- d) Qualified by SSHE Audit Productivity Improvement Team.
- e) Demonstrate personal attributes, e.g. ethical, open-minded, diplomatic, observant, etc.

- f) Have auditing skills or pass training related to the audit scheme and requirements, e.g. ISO 14001, ISO 45001, etc.
- g) Obtain technical or operational SSHE management experience.
- h) Participate in at least four (4) SSHE audits and lead one (1) audit under the supervision of a qualified audit team leader, or have proven audit records from previous work.

#### **Audit Team Member**

- a) Pass the training on PTTEP SSHE Internal Auditor to ensure understanding of the Audit and Review Standard requirements or equivalent.
- b) Have at least three (3) years' work experience relevant to the audit scheme.
- c) Possess technical knowledge of oil and gas production, operations, or other related fields relevant to the audit scheme.
- d) Be appointed by audit team leader, Technical Authority (TA2), or line management.
- e) Demonstrate personal attributes, e.g. ethical, open-minded, diplomatic, observant, etc.
- f) Have auditing skills or pass training related to the audit scheme and requirements, e.g. ISO 14001, ISO 45001, etc.
- g) Participate in at least two (2) audits as an OJT, or have proven audit records from the previous work.

#### **Note:**

- In case that the auditor qualification requirements above are not met, the endorsement from the SSHE Audit Productivity Improvement Team, is required.
- Some SSHE audits that need to be audited or reviewed by the person who has specific knowledge or expertise on that audit, e.g. OTR, PTR, etc., the specific qualifications of auditors can be considered depending on the relevant requirements but it shall not less than the minimum requirements in this Standard.
- Planning and Assurance Section is responsible for maintaining the inventory list of approved auditors for each Corporate's SSHE audit program.

The SSHE Audit Productivity Improvement Team is the taskforce appointed by CSH. This team is responsible for promoting the organization's SSHE audit productivity improvement activities. Audit Team Leaders for the 2<sup>nd</sup> Line and 3<sup>rd</sup> Line audits will be qualified and evaluated for their competence by the SSHE Audit Productivity Improvement Team before assigning them to initiate an audit. The examples for auditor evaluation criteria are shown in Appendix B.

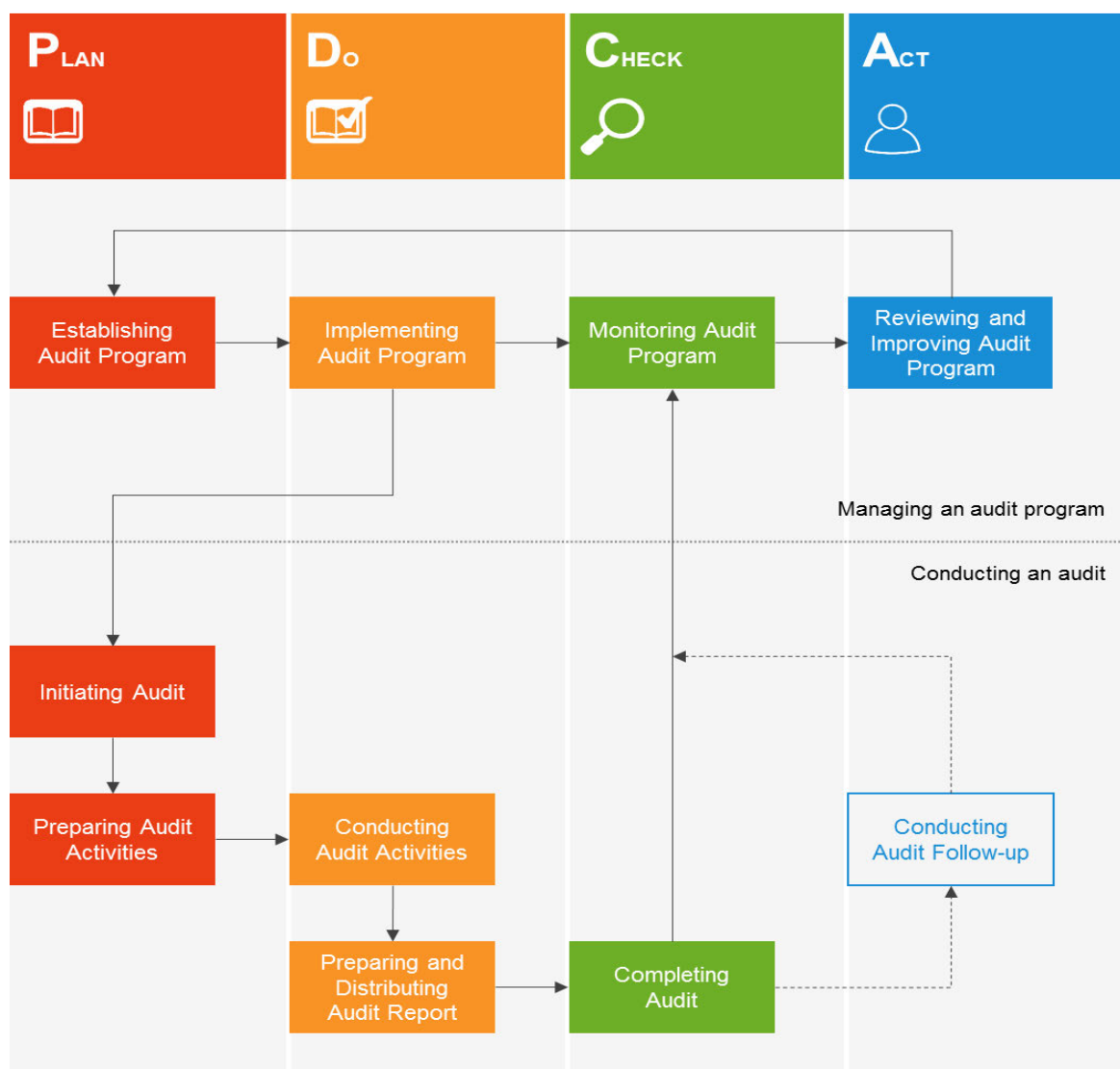
## **4.4 MONITORING AUDIT PROGRAM**

Assets, organizations, and projects shall monitor and measure their SSHE audit program on a quarterly basis to evaluate whether audit schedules are being met and audit program objectives are being achieved.

## 4.5 REVIEWING AND IMPROVING AUDIT PROGRAM

The risks associated with an audit program during the implementation can affect the achievement of its objectives, e.g. insufficient resources, failure to complete audit as scheduled, insufficient competent personnel to conduct audits effectively, etc. Overall implementation of the SSHE audit program shall be reviewed regularly to assess whether its audit objectives have been achieved.

Lessons learned from the audit program review can be used to determine the necessary actions or opportunities for improving the audit program. The process flow for managing an audit program is illustrated in Figure 2.



**Figure 2: Process Flow for the Management of SSHE Audit Program**

## **5.0 CONDUCTING AN AUDIT**

### **5.1 INITIATING AUDIT**

To initiate any audits related to SSHE, the steps in Figure 1 should be considered but the sequence can differ depending on the auditee, processes and specific circumstances of the audit. The assigned audit team leader is responsible for conducting the audit until it is completed.

The assigned audit team leader shall establish the contact with auditee to communicate necessary information related to the audit, e.g. Audit TOR, confirmation on the audit schedule, etc. in advance based on the audit plan to ensure auditee takes into account the local travel and security needs and all parties to be interviewed are aware of the schedule.

The audit approach and expectations, logistics, responsibilities for arranging travel, accommodation, medical requirements, special training or equipment, e.g. Helicopter Underwater Escape Training (HUET), etc., shall be communicated to the team.

### **5.2 PREPARING AUDIT ACTIVITIES**

#### **5.2.1 Performing Review of Documented Information**

The audit team shall review the auditee's relevant documented information before mobilization to the audit location. The early availability of the documentation will assist the audit team in achieving the audit objectives within the given time frame.

#### **5.2.2 Audit Planning**

##### **5.2.2.1 Risk-Based Approach to Planning**

The risk-based approach means an audit approach that considers risks and opportunities. The relevant risks and opportunities associated with auditee's organization and operations should be taken into account when planning, conducting, and reporting of audits in order to ensure that audits are focused on matters that are significant for the auditee and for achieving the audit objectives.

The assigned audit team leader should adopt a risk-based approach to planning the audit based on information in the audit program and the documented information provided by the auditee.

##### **5.2.2.2 Audit Planning Details**

The TOR is the audit plan to be drafted by the assigned audit team leader based on the template provided in Appendix C, which includes the audit objective, scope, audit criteria, audit team members, audit methodology, start date, duration and reporting requirements, including report distribution. The TOR must be agreed between auditee and audit team leader prior to the start of the audit, otherwise, the audit must be deferred until such time that agreement is reached.

The TOR should be agreed and submitted to the auditee at least two (2) weeks before the audit start since material changes may affect the required audit team composition.

### **5.2.2.3 Assigning Work to Audit Team**

The audit team leader, in consultation with the audit team, shall assign to each team member responsible for auditing specific processes, activities, functions or locations by considering of the audit objectives and competence of the auditors.

### **5.2.2.4 Preparing Audit Work Document**

The audit team members shall collect and review the information relevant to their audit assignments and prepare necessary documented information for the audit, e.g. audit checklist, audit sampling details, etc.

For the combined audit, works documents shall be developed to avoid duplication of audit activities by clustering of similar requirements or coordinating the content of related checklist and questionnaires.

An audit checklist may be required an input at this stage from the auditor. The example format of the checklist is provided in Appendix D: Example of Audit Checklist Form.

## **5.3 CONDUCTING AUDIT ACTIVITIES**

The audit shall start with an introductory meeting which serves as an introduction between the parties and shares expectations regarding the audit programme and approach. The audit team leader presents the TOR, and the schedule which was agreed to by the auditee. This is then generally followed by a technical orientation by the auditee organization.

The audit progresses with reviewing, testing, and appraising the control framework areas indicated in the TOR. Interviews, document reviews, and site visits are usually required to develop a complete understanding. By agreement with local site management, emergency response exercises may be held during the site visits.

The audit leader should also periodically communicate any concerns regarding the findings to the auditee as appropriate.

Audit team meeting should be held, as appropriate, by audit team leader in order to allocate work assignments and decide possible changes.

### **5.3.1 Determining Audit Conclusions**

The audit team shall review the audit findings and any other appropriate information collected during the audit, against the audit objectives.

Audit findings shall be based on facts and supported by objective evidence and references.

In developing audit findings, the audit team typically identifies an omission or shortfall in the controls. They will then try to identify root causes rather than simply the superficial manifestation or outcome.

Recommendations should help to clarify the findings rather than limit the scope of possible solutions. Recommendations shall be stand-alone and specific, measurable, achievable, and realistic. However, it is ultimately the auditee's responsibility to determine what actions are required to correct the findings (which may include the recommendations provided) and the implementation timing required.



### 5.3.2 Type of Audit Finding

Audit finding is a result of the evaluation of the collected audit evidence against audit criteria. Types of audit results can be classified as follows:

**Table 2: Type of Audit Finding**

Finding Type	Description
<b>Conformity (C)</b>	A judgment made by the auditor that the activities undertaken and the results achieved fulfil the specified requirements of the audit criteria.
<b>Nonconformity (NC)</b>	<p>A judgment made by the auditor that the activities undertaken and the results achieved do not fulfil the specified requirements of the audit criteria. This may be caused by:</p> <ul style="list-style-type: none"> <li>a. The absence or inadequate implementation of a system or part of a system; or</li> <li>b. Failures by Supervisors and/or workers to follow documented systems or Procedures, or</li> <li>c. Lack of evidence to demonstrate that requirements are being met.</li> </ul> <p><b>Note:</b> If the audit criteria are legal requirements for an audit related to the SSHE laws, the words “Compliance” (C) or “Non-compliance” (NC) are used in an audit finding instead.</p>
<b>Observation (OBS)</b>	<p>A judgment made by the auditor that the activities undertaken and the minimum requirements may be met but some issues are required attention in order to improve the effectiveness of implementation. If left unaddressed, it is likely to lead to nonconformity during future audits.</p> <p>OR The results achieved partially fulfil the specified requirements of the audit criteria. While further improvements may still be possible.</p> <p><b>Note:</b> OBS raised during internal audits could be classed as preventive actions as audit team can suggest improvements within the system to prevent nonconformities from occurring in the future.</p>
<b>Best-practice (BP)</b>	<p>Best-practice is a method or technique that has consistently shown results superior to those achieved with other means. Best-practices can come from internal practices and innovations which ensure economic value delivery, enhance reliability and reduce risks.</p> <p>A best-practice can be created and found across the organization during an audit. A good finding classified as the best-practice should be reported and shared the best-practices across PTTEP assets/projects for continuous improvement.</p>

In case any auditors would like to propose their opinion for improvement but it is not qualified as an NC or an OBS, the auditor can raise Opportunity for Improvement (OFI) instead. However, all reported OFI shall be clearly understood and agreed by auditee prior to addressing it in the audit report.

**Table 3: OFI Definition**

<b>Opportunity for Improvement (OFI)</b>	<p>When conducting an audit, audit team may encounter a situation or condition that does not qualify as a nonconformity or an OBS, in the opinion of the auditor, if addressed, may improve the management system.</p> <p>The reported OFI shall be understood and agreed by the auditee.</p>
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**Note:**

- Only agreed NC, OBS and OFI can be uploaded to the iSSHE – Audit & Action modules or recorded on other applicable methods to request an action for improvement.
- A registered OFI on iSSHE or on the official report agreed by the auditee should be taken action to improve the system as recommended by the audit team. Otherwise, documented evidence shall be presented to the auditor for OFI cancellation.

### 5.3.3 Audit Finding Classification

Audit findings categorized as a nonconformity or an OBS shall be classified the severity level by applying the criteria shows in Table 4.

The existence of a repeat finding (i.e. a finding identified in a previous audit/review) would not in itself result in a higher rating than that given in the previous audit, unless the risk to achievement of organization objectives has increased.

Once a nonconformity finding or an OBS finding has been identified, the consequence and possible impact of those findings shall be considered. The severity level of audit finding shall be identified as Low (L), Medium (M), or High (H) and documented in the audit report for each nonconformity or OBS finding.

Priorities for corrective actions or preventive actions of audit findings are set based on the audit team's judgement of the severity of the audit findings. Such actions shall be decided and undertaken by the auditee within the agreed and reasonable timeframe depend on the severity of the audit finding.

- A corrective action for 'High' severity finding should be taken within a prompt timeframe but not more than one (1) year. Senior management (Asset/site/Project SVP or above) needs to be notified of the finding.
- A corrective action for 'Medium' severity finding can be taken in a longer timeframe but not more than two (2) years. Site management (Site Manager/ Superintendent/ Supervisor) need to be aware of the finding.



- A corrective action for 'Low' severity finding can be taken in the longest timeframe when comparing with High or Medium finding but not more than two (2) years and site management need to be aware of the finding.

**Table 4: Criteria for Audit Finding Severity Classification**

Audit Finding Severity	Definition
<b>High (H)</b>	The audit finding has potentially severe consequences (impact rating is in level 4-5 in RAM) in any impact category. There must be a demonstrable causation link between the finding and the potential consequences.
<b>Medium (M)</b>	The audit finding has potential consequences that impact rating is in level 3 in RAM. There should be a demonstrable causation link between the finding and the potential consequences.
<b>Low (L)</b>	The audit finding has potential consequences that impact rating is in level 1 or 2 in RAM in any impact category. The strength of the link between the finding and the consequences may be less strong.

**Note:** Audit finding severity classification refers to consequence impact rating in the PTTEP 'Risk Assessment Matrix' (RAM) in SSHE Risk Management Standard (SSHE-106-STD-400).

**Table 5: Example of Audit Finding Classification**

Example Audit Findings (Nonconformity or Observation)	Potential Consequence	Potential Impact	Impact Rating	Finding Severity
Observed 2 Contractors entered to the vessel (confined space). Gas checking (Lower Explosive Limit (LEL), Oxygen, Toxic gas) was not performed prior to entering to the vessel.	Contractors death in confined space due to asphyxiates	Two fatalities	(5) Critical	<b>H</b>
There were missing of Heli-fuel sampling records in July and August 2018. Based on the interview, the Heli-fuel samplings for detecting fuel quality were not taken as planned.	Helicopter crash due to engine failure.	Multiple fatalities	(5) Critical	<b>H</b>

Example Audit Findings (Nonconformity or Observation)	Potential Consequence	Potential Impact	Impact Rating	Finding Severity
No barricade area to prevent unauthorized personnel enter to working area or walk under load during lifting the turbine engine unit at the upper deck.	Unauthorized personal enter to working area or walk under load during lifting	One fatality	(4) Serious	H
New SSHE committee members have been appointed but they were not achieved the required training course and there was no evidence of the submission letter to Department of Labor Protection and Welfare (DLPW) for updating their information.	Legal non-compliance	Be penalized with imprisonment of not more than one year or a fine not exceeding 400,000 Baht, or both.	(4) Serious	H
Found scaffold no.230231 height 2 m. shows the last inspection on 1 May 2023. The scaffold has been installed for over 6 months (since 6 Jan 2022), but it was not dismantled as indicated in the Scaffolding, working at height procedure.	Personnel who work involved with the scaffold may get an injury	Single LWDC	(3) Significant	M
Found site's Routine Job Card Procedure, Rev.0, issued Dec.2012 on document database was not reviewed every 5 years to comply with Corporate SSHE Documentation Management Standard (11038-STD-SSHE-304) However, there is no change on requirements in the Procedure.	Not conform with Corporate Standard	No legal penalty  A nonconformity is raised by audit party.	(1) Minor	L



Example Audit Findings (Nonconformity or Observation)	Potential Consequence	Potential Impact	Impact Rating	Finding Severity
<p>Mercury Waste Procedure, rev.03, states in Section 6.5 that a mercury waste container shall be sealed and checked the mercury concentration prior to transferring to the waste storage area.</p> <p>The auditor observed two employees in the process area were moving mercury waste containers after sealed it without checking Mercury concentration.</p>	<p>Personnel who work involved with transferring mercury waste container may expose to contaminated mercury if a container was not properly sealed.</p>	<p>MTC case due to acute health effects if exposed to high levels of elemental mercury vapor may be occurred, i.e. Respiratory symptoms may predominate (a cough, sore throat, shortness of breath).</p>	<p>(2) Moderate</p>	L
<p>PTW audit set up as a personal KPI for all staff and also overall % PTW audit set at &gt; 20 %.</p>	<p>Ensure all activities will be performed safely.</p>	N/A	N/A	N/A
<p>According to PSV campaign, maintenance team always issue the corrective maintenance work order after any one PSV had a failure on the test result. This is a very good practice for recording and tracking of SCE failure on demand in the future. Furthermore, all of PSV are totally inspected and tested on a 2-yearly basis.</p>	<p>Recording and tracking of SCE failure on demand</p>	N/A	N/A	N/A

**Note:** If there are two or more identified impacts, the impact rating with the highest level shall be chosen as the finding severity result.

## **5.4 PREPARING AND DISTRIBUTING AUDIT REPORT**

Upon completion of the audit, a closing or debrief meeting shall be conducted by the audit team leader with the similar group of the personnel attending the opening meeting including all auditee. Its purpose is to highlight the positive achievements and to verbally discuss the audit findings to ensure the clear understanding of at least each high and medium severity audit finding identified and the appropriate corrective and preventive actions to be taken. The meeting is closed with a summary of the audit achievement against the audit objective. Debriefing meeting must be done on site and may be requested for asset/project management at Bangkok office.

The audit team shall give the draft list of findings to the auditee. The official audit report shall be submitted to the auditee within one (1) month after the audit completion date. It is the final delivery and the official document for reference and follow-up.

The report written by the audit team needs to record all information necessary to illustrate nonconformity, outline positives, and identify opportunities for improvement.

Each audit finding shall be identified the auditor name who raise that finding with clear, concise, and evidence-based writing. Auditor's recommendations for each audit finding shall be clearly defined, realistic and aligned with the raised finding. The example format of audit finding report is shown in Appendix F.

## **5.5 COMPLETING AUDIT**

The audit is completed when all planned audit activities under each audit program have been carried out, or as otherwise agreed with the auditee, e.g. there might be an unexpected situation that prevents the audit being completed according to the audit plan.

## **5.6 CONDUCTING AUDIT FOLLOW-UP**

The auditee shall assess audit findings, assign and agree with the action party and their Line Manager proposed actions and completion dates. The actions parties may propose alternative actions to satisfy the intent of the finding in consultation with the auditor or topic TA2.

The agreed actions from audits conducted by the audit team shall be loaded and tracked until completion in the iSSHE – Audit & Action modules or other applicable methods.

An organization may also conduct follow-up audits to verify corrective or preventive actions were taken as a result of performance issues that may be reported as opportunities for improvement.

A follow up on a status of action can be performed within the scope of a site's management review, a SSHE monthly meeting, or Section/Department meetings, etc.

Corporate SSHE is responsible for reporting the summary of SSHE audit findings status under their responsibility to SSHE Council on a quarterly basis.

## 6.0 REVIEW

### 6.1 SSHE MS VERIFICATION

The SSHE MS Verification (SSHE MSV) is a part of SSHE MS review process organized by Corporate SSHE. It is intended to systematically verify and validate the efficacy of SSHE MS implementation.

The key objectives of the SSHE MS Verification, but are not limited to:

- Evaluate the suitability, adequacy, and effectiveness of SSHE MS implementation.
- Determine the failure or weakening of barriers in the SSHE MS that cause incidents or SSHE performance failures.
- Ensure that the risks associated with the life cycle of the asset/project have been eliminated or controlled to an acceptable level.
- Identify weaknesses in SSHE MS processes and outline corrective/prevention actions that should be taken to rectify them.
- Benchmark the maturity level of SSHE MS implementation against peers.

The SSHE MSV will be conducted against the requirements stated in the reference SSHE-related standards, procedures, and guidelines. The assessment will be conducted by utilizing the particular SSHE MSV toolkits (See Appendix E for an Example of SSHE MSV Toolkits). The SSHE MSV methodology will include but is not limited to the following activities.

**Inspection** – The mitigation is proven to be in place by visual verification, inspection of the actual system, and physically determining that the SSHE MS requirements or controls is implementing effectively.

**Analysis** – Formal assessment or evaluation methods, review statistical data, which are applied in order to make judgment as to prove that the SSHE MS requirements or controls is implementing effectively.

**Demonstration** – Any simulation, dry runs, drills, or standard/procedure checks, or any techniques that are applied to assure that the SSHE MS requirements or controls is implementing effectively.

**Implicit Verification** – There are inherent methods to verify that SSHE MS has been implemented effectively. Consider any means of acquiring information or data that proves or supports the implementation, such as document review, interview, or observation. Implicit verification includes all proper documentation, specification, plans, or requirements that have been incorporated to assure that the SSHE MS barriers or controls are in place.

SSHE MSV shall be carried out by the Corporate SSHE audit team and undertaken of the SSHE MS of all PTTEP operated assets as a minimum once every 5 years. The SSHE MSV frequencies are based on risk including the asset's SSHE performance, company focus or business requirements, and past audit results.

## **6.2 MANAGEMENT REVIEW**

The management review shall be implemented within the assets, sites, or projects that implemented SSHE MS in accordance with the ISO 14001, ISO 45001 Standards requirements or required by other obligations.

An organization's top management should be scheduled at least once a year, conduct a review of SSHE MS to evaluate the system's continuing suitability, adequacy and effectiveness. This review should cover the SSHE risks of activities, products and services that are within the scope of the SSHE MS. The management review can be conducted by the asset's top management or delegated management at upper levels.

A management review can coincide with other management activities (e.g. Technical Committee Meeting (TCM), SSHE monthly meetings, operational meetings, workshop, etc.) or can be conducted as a separate activity.

Management review can be coordinated with the organization's planning and budgeting cycle, and SSHE performance can be evaluated during top management's review of its overall business performance, so that decisions on priorities and resources for the SSHE MS are balanced with other business priorities and resource needs.

Inputs to the management review should include all topics specified in applicable Standard requirements. The results from SSHE Management Review shall be retained and communicated to relevant parties.

## **7.0 NONCONFORMITY, CORRECTIVE AND PREVENTIVE ACTION**

### **7.1 NONCONFORMITY IDENTIFICATION**

Non-conformance can be identified in various cases, including but not limited to:

- Fail to comply with the company document requirements e.g., Standard, Procedure, Guideline
- Fail to comply with the specified limits or safe work practices
- Fail to comply with the operational control procedures
- Unsafe practices/ unsafe conditions
- Nonconformity from internal/external audit
- Noncompliance with applicable legal requirements
- Deficiencies from Asset/Site Emergency Exercise
- Occupational Health, Safety and Environment monitoring results that exceed limits without review and follow-up action
- Deviation from the company's codes, standards or PTTEP Engineering General Specification (PEGS)



When a nonconformity occurs, the organization shall react in a timely manner to the nonconformity, deal with the consequences, and take action to control and correct it.

A nonconformity shall be evaluated by the action party to determine the need for corrective/prevention action to eliminate the root cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by:

- Reviewing the nonconformity
- Determining the cause(s) of the nonconformity
- Determining if similar nonconformities exist or if they could potentially occur
- Determine and implement any action needed, including corrective/preventive action, in accordance with the hierarchy of controls

Nonconformity sources and reporting channels are identified and described in Table 6.

**Table 6: Nonconformity Sources and Reporting Channels**

Nonconformity Source	Reporting Channel
Fail to comply with the company document requirements e.g., Standard, Procedure, Guideline	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• iSSHE – Action module or other applicable tools</li> </ul>
Fail to comply with the specified limits or safe work practices	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• iSSHE – Action module or other applicable tools</li> </ul>
Fail to comply with the operational control procedures	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• iSSHE – Action module or other tools</li> </ul>
Unsafe practices/ unsafe conditions	<ul style="list-style-type: none"> <li>• HRC/SOC report</li> <li>• Audit Report</li> </ul>
Nonconformity from internal/external audit	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• iSSHE – Audit &amp; Action modules or other tools</li> </ul>
Noncompliance with applicable legal requirements	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• iSSHE – Audit &amp; Action modules or other tools</li> </ul>
Deficiencies from Asset/Site Emergency Exercise	iSSHE – Action module or other tools
Occupational Health, Safety and Environment monitoring results that exceed limits without review and follow-up action	iSSHE – Action module or other tools
Deviation from the company's codes, standards or PEGS	<ul style="list-style-type: none"> <li>• Audit report</li> <li>• E-MOC</li> </ul>



Action needed, including corrective/preventive action, in accordance with the hierarchy of controls shall be determined. Review the risk assessment related to new or changed hazards before taking action. Any action taken should be reviewed for its effectiveness. The timeframe for completing corrective/preventive action will refer to section 5.3.3 Audit Finding Classification.

## ROLES AND RESPONSIBILITIES

Roles	Responsibilities
SSHE Council Members	<ul style="list-style-type: none"> <li>• Endorse Policy, Standards and improvement plans related to the Asset SSHE matters.</li> <li>• Review audit findings status and provide direction to close out audit findings effectively.</li> <li>• Review the effectiveness of SSHE MS implementation.</li> <li>• Review Asset SSHE performance for continuous improvement.</li> </ul>
All Executive Vice Presidents (EVPs) and Senior Vice Presidents (SVPs)	<ul style="list-style-type: none"> <li>• Demonstrate their leadership and commitment, as delegated by Chief Executive Officer (CEO), either by leading or participating in top management visit and review activities.</li> <li>• Ensure that under their respective Division/Department: <ul style="list-style-type: none"> <li>○ Regularly audit and review all activities/tasks performed as per its requirements to ensure its compliance with the Asset Policy, Standards, Procedures and applicable National and International Standards, laws and regulations; and</li> <li>○ Effectively identify and close out the findings and recommendations during top management visit and other audit and review activities.</li> </ul> </li> </ul>
Senior Vice Presidents (SVP), Corporate SSHE Division	<ul style="list-style-type: none"> <li>• Assure the business that the SSHE controls are being managed following local and PTTEP Policies by implementing the Corporate SSHE audit programs.</li> <li>• Ensure the annual Corporate SSHE audit program is prepared and communicated to all relevant parties.</li> <li>• Planning and Assurance Section is responsible for maintaining the list of approved auditors for each Corporate's SSHE audit program.</li> <li>• Review SSHE MS effectiveness and provide advice to CEO for continuous improvement.</li> </ul>



Roles	Responsibilities
Vice President (VP), Assets/Projects	<ul style="list-style-type: none"> <li>• Ensure that the internal audits/inspections within his/her respective area are conducted to identify gaps/weak points for further improvement.</li> <li>• Ensure that, at the Asset level, the reviews are conducted after major changes to the operational activities and organization.</li> <li>• Fully co-operates with Corporate SSHE when conducting audit and review activities.</li> <li>• Ensure that the corrective actions raised from any audit and review activities conducted within his/her Asset are taken and closed out appropriately.</li> </ul>
Division/Department SSHE Manager/Team Leader	<ul style="list-style-type: none"> <li>• Develop the Division/Department annual SSHE audit plan.</li> <li>• Align the audit plan with the Corporate SSHE audit plan.</li> <li>• Assist his/her responsible Asset, as appropriate, to arrange and/or conduct its own audit, review and inspection as scheduled.</li> <li>• Communicate the findings to his/her Asset EVP and SVP to seek support for further improvement.</li> <li>• Verify and follow up on the corrective actions status to ensure they are all taken and closed out within the limited time frame.</li> <li>• Communicate with his/her responsible Asset to ensure the audit and review activities are conducted as scheduled.</li> </ul>
Division/Department SSHE Engineers	<p>As delegated by his/her Line Management, SSHE engineers have the responsibilities to:</p> <ul style="list-style-type: none"> <li>• Arrange and conduct SSHE audit and review activities, either SSHE MS compliance or specific SSHE issues to assess whether each Asset performs their activities legally and properly.</li> <li>• Report the findings to the responsible persons of the audited area.</li> <li>• Verify and follow up the corrective actions status to ensure they are all taken and closed out properly and within the limited time frame.</li> <li>• Support each Asset to ensure the continuous improvement process is effectively implemented.</li> </ul>

Roles	Responsibilities
Audit Team Leader	<ul style="list-style-type: none"> <li>• Establish timely contact with auditees to schedule the audit/review.</li> <li>• Provide the Terms of Reference (TOR) and relevant information on the audit objectives, scope, criteria, methods, and team composition.</li> <li>• Make arrangements for the audit, including the schedule.</li> <li>• Arrange an acceptable audit team and allocate work assignments, including roles and responsibilities to each audit team member.</li> <li>• Periodically communicate the progress, significant findings, and concerns to the auditee, as appropriate.</li> <li>• Establish the audit report following the audit program and distribute it to the auditee.</li> <li>• Provide constructive feedback to auditee including the recommendation for improvement.</li> <li>• Review the effectiveness of taken corrective/prevention actions on iSSHE – Audit &amp; Action modules or other means.</li> </ul>
Audit Team Member	<ul style="list-style-type: none"> <li>• Prepare documented information for the audit, e.g. audit checklist, audit sampling details, documents related to the management system being audited, etc.</li> <li>• Complete their audit work assignments as planned.</li> <li>• Assist the audit team leader in establishing the audit report.</li> </ul>
On the Job Trainee (OJT)	<ul style="list-style-type: none"> <li>• OJT may accompany the audit team with approvals from the audit team leader and auditee.</li> <li>• They shall influence or interface with the conduct of the audit as required by the audit team.</li> </ul>
Auditee	<ul style="list-style-type: none"> <li>• Agree and plan for the audit timing with an appointed audit team leader.</li> <li>• Provide a budget in place to cover the audit costs.</li> <li>• When needed, nominate an audit coordinator or guide to assist the audit team.</li> <li>• Make the time available to support the audit and ensure all subordinates participate.</li> </ul>

Roles	Responsibilities
	<ul style="list-style-type: none"> <li>• Welcome the Audit team and sees the audit as part of the management improvement process.</li> <li>• Review and accepts audit findings.</li> <li>• Follow up and complete audit findings within the agreed time frame.</li> </ul>
SSHE Audit Productivity Improvement Team	<ul style="list-style-type: none"> <li>• Promote and spearhead the SSHE audit productivity improvement activities across the SSHE organization.</li> <li>• Qualify and evaluate SSHE Lead Auditors based on the assessment criteria together with the qualified Lead Auditors, which include, but are not limited to, personal behavior, knowledge/background, audit competence, audit skills, and experiences.</li> <li>• Annually review the performance of SSHE Lead Auditors/Auditors and make recommendations for continuous improvement.</li> <li>• Provide advice and consultation regarding the SSHE audit productivity improvement and SSHE audit and review related matters.</li> <li>• Provide resources to support the annual calibration of SSHE auditors to sustain standardized practices.</li> </ul>



## REFERENCES

Document Number	Document Title
<b>PTTEP Controlling Documents</b>	
11038-STD-SSHE-000	SSHE Management System
11038-STD-SSHE-401	SSHE Risk Management Standard
<b>Other Reference Documents</b>	
-	Institute of Risk Management (IRM), Tools for Providing Assurance on Regulatory Compliance; 2019
ISO 14001	Environmental Management Systems - Requirements with Guidance for Use; International Organization for Standardization; 2015
ISO 19011	Guidelines for auditing management systems; 2018
ISO 45001	Occupational health and safety management systems - Requirements with guidance for use; International Organization for Standardization; 2018
PTT Group OEMS L2	PTT Group Operational Excellence Management System (OEMS) L2 Manual, SSHE Element, Version 2.9; 2022
THE IIA'S THREE LINES MODEL	Institute of Internal Auditors (IIA), The Three Lines of Defense in Effective Risk Management and Control; 2013

## APPENDICES

### APPENDIX A: MINIMUM REQUIREMENTS FOR ESSENTIAL SSHE AUDITS

#### 3<sup>rd</sup> Line of Control: Corporate SSHE Division

Audit/Review Program	Frequency	Note
SSHE MS Verification	Every 5 years and upon risk-based	Selective assets/sites
Top Management Visit	4 times/year	Selective assets/sites
Internal Review - SSHE Data Assurance	Annually	Selective assets/sites
Operational Technical Review (OTR)	Every 3-5 years (upon risk-based)	Selective assets/sites
Operational Preparedness Review (OPR)	On-request	Determine by Project
Project Technical Review (PTR)	On-request	Project driven
Pre Start-Up Audit	On-request	Determine by Project
JV SSHE Audits	On-request	Determine by Project
Due Diligence Audits	On-request	Determine by Project
Corporate SSHE Contractor Audit	On-request	Selective contractor(s)

#### 2<sup>nd</sup> Line of Control: Division/Department SSHE, International Asset SSHE

Audit/Review Program	Frequency	Note
ISO 14001 / ISO 45001 Internal Audit	Annually	Annually, for each asset that is certified with ISO 14001 / ISO 45001.
Internal EIA Compliance Audit	Annually	Assets/sites implement EIA mitigation
Contract Holder Verification	Annually	Selective contract(s)
SSHE Contractor Audit	Every 2 years per contractor (or risk-based)	Selective contractor(s)
Safety Case Barrier Audit	1 year after the safety case review	Selective assets/sites



**1<sup>st</sup> Line of Control: Site/Project/Asset**

Audit/Review Program	Frequency	Note
MOC Internal Audit	Annually	All operating assets (except Non-E&P)
Internal Security Audit	Annually	All operating assets
Clinic & Hygiene Inspection	Monthly	All operating assets have a clinic on-site
Permit to Work Audit	At least 5% of the issued permits each month	All operating assets

**Note:**

- The list of SSHE audits/reviews for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> lines above are example, including but not limited to.
- In additional SSHE audits/reviews can be established and determined the frequency by each line of control as appropriate.

**External Audit: Certified body, Regulator, External auditors/assessors**

Audit/Review Program	Frequency	Note
ISO 14001 / ISO 45001 External Audit	Annually	Selective assets/sites that are certified the ISO 14001 / ISO 45001
DMF Annual HSE and Waste Audit	Annually	Selective assets/sites
3 <sup>rd</sup> Party - SSHE Data Assurance	Annually	Selective assets/sites
PTT Operational Excellence Management System (OEMS) Maturity Assessment	Every 3 years	Selective asset/site

## APPENDIX B: EXAMPLES FOR AUDITOR EVALUATION CRITERIA

Evaluation Form for New SSHE Audit Team Leader

NEW Lead Auditor Name:		Dept.:	
Lead Advisor Name:		Dept.:	
Audit Title:			
Audit Date:		Location:	

Description	Performance result (✓)		Advisor Note
	Good	Need more practice	
<b>Audit Preparation</b>			
Understanding of audit criteria or relevant requirements in the audit scope i.e., ISO requirements, SSHE MS requirements, etc.			
Audit process management <ul style="list-style-type: none"> <li>- Preparing audit TOR</li> <li>- Audit documents preparation</li> <li>- Work assignment to the audit team member</li> <li>- Communicating with auditee</li> </ul>			
<b>Initiate an Audit</b>			
Participation and presenting on: <ul style="list-style-type: none"> <li>- Opening meeting</li> <li>- Interview session</li> <li>- Daily auditor meeting</li> <li>- Audit conclusion</li> </ul>			
Job Responsibility: <ul style="list-style-type: none"> <li>- Lead overall interview, ask the key point question, and summarize major issues</li> <li>- Records findings and key points throughout audit period</li> <li>- Record an evidence to support responsible audit scope</li> </ul>			
Knowledge, Behavior and Skills: <ul style="list-style-type: none"> <li>- Adequate knowledge</li> <li>- Professional manner</li> <li>- Maturity, open-minded, reliability, and determined</li> </ul>			
<b>Closing Audit</b>			
Preparing audit conclusion and clearly communicating the audit findings to auditee			
Perform closing meeting with valuable recommendations for improvement			
Preparing audit report to auditee			
<b>Evaluation Result</b>			
<input type="checkbox"/> Qualify to be an Audit Team Leader <input type="checkbox"/> Need more Practice			
Comment for improvement:			
Lead Advisor's Signature:		Date:	

### Evaluation Form for New SSHE Auditor

<b>NEW Auditor Name:</b>		<b>Dept.:</b>	
<b>Assessor (Lead Auditor) Name:</b>		<b>Dept.:</b>	
<b>Audit Title:</b>			
<b>Audit Date:</b>		<b>Location:</b>	

Description	Performance result (✓)		Advisor Note
	Good	Need more practice	
<b>Audit Preparation</b>			
Understanding of audit criteria or relevant requirements in the audit scope i.e., ISO requirements, SSHE MS requirements, etc.			
Audit process management - Participating in the preparation of audit TOR - Audit documents preparation - Follow work assignment - Communicating with auditee			
<b>Initiate an Audit</b>			
Participation on: - Opening meeting - Interview session - Daily auditor meeting - Audit conclusion			
Job Responsibility: - Participate interview session, ask the key point question, and summarize major issues - Record finding and audit evidence to support responsible audit scope - Assist the audit team to establish an audit report			
Knowledge, Behavior and Skills: - Adequate knowledge - Professional manner - Maturity, open-minded, reliability, and determined			
<b>Closing Audit</b>			
Clearly communicating the audit findings to auditee			
Be able to explain the audit finding with valuable recommendations for improvement			
Clearly writing the finding statement			
<b>Evaluation Result</b>			
<input type="checkbox"/> Qualify to be an Auditor <input type="checkbox"/> Need more Practice			
<b>Comment for improvement:</b>			
<b>Assessor (Lead Auditor)'s Signature:</b>		<b>Date:</b>	

## **APPENDIX C: EXAMPLE SSHE MS TERMS OF REFERENCE (EDITED AS APPROPRIATE)**

Terms of Reference (TOR) for \_\_\_\_\_

Audit date: \_\_\_\_\_

### **1) Introduction:**

To describe the principle or details of a SSHE audit.

### **2) Audit Scope:**

The scope includes the extent, boundaries, and locations.

Example: The audit scope includes all activities of employees and contractors within the asset and its facilities.

### **3) Audit Objective:**

Example of audit objectives:

- Determination of the extent of conformity of the management system to be audited, or parts of it, with audit criteria.
- Evaluation of the capability of the management system to assist the organization in meeting relevant statutory and regulatory requirements and other requirements to which the organization is committed.
- Evaluation of the effectiveness of the management system in meeting its intended results.
- Identification of opportunities for potential improvement of the management system.

### **4) Audit Methodology:**

To determine the audit methodology and required activities.

Example:

Qualified auditors will conduct the SSHE audit following the Audit and Review Standard guidelines.

The audit will be accomplished through the following activities:

- An open meeting will be held with the management team to discuss the scope, objectives, activities and schedule for the work
- Interview site management and team
- On-site survey
- An on-site review will be conducted which consists of:



- Random interviewing personnel throughout the organization, including the employee and contractors
- Random reviewing of documented information in place to identify and evaluate the components of the existing SSHE MS
- Compliance evaluation of SSHE obligations, legal and other requirements

### 5) Audit Criteria:

To determine the set of requirements used as a reference against which objective evidence is compared.

Example audit criteria:

- ISO14001:2015 and ISO45001:2018 standard requirements;
- Statutory or SSHE legal and other requirements related to the activities in which the organization is;
- PTTEP and Asset Processes, Policies, and other SSHE Management System requirements i.e. standards, procedures, guidelines, etc.; and
- Occupational health management requirements

### 6) Audit Team Composition:

Name-Surname	Department/Section	Roles

### 7) Audit Finding Classification:

Detail of audit finding the classification for the audit.

### 8) Audit Schedule:

Date	Time	Activity / Process to be audited

### 9) Other Information:


The audit team can communicate other specific information to the audit as appropriate.

## APPENDIX D: EXAMPLE INTERNAL AUDIT CHECKLIST AND FINDING RECORD (EDITED AS APPROPRIATE)

Audit Title:		
Section/Dept.:	Date:	
Auditee:	Asset:	
Auditor:	Location:	
Topic/Requirement	Evidence	Finding/Comment

## APPENDIX E: EXAMPLE OF SSHE MSV TOOLKIT & SCORING BOOK

Example of SSHE MSV toolkit



# SSHE Management System Verification (SSHE MSV) Toolkit

## Toolkit No. 01

### Planning and Assurance (CPA/P)

Section	Checklist detail	Impact level	Content	Deployment	Conformance	Implementation Level	Effectiveness Score				
							Content	Deployment	Conformance		
Leadership and Commitment											
1	Management implements and communicates SSHE policy supporting the SSHE MS programs.	M	-	X	Yes	X	Yes	Effective	0	2	2
2	Management defines specific goals for SSHE programs, along with plans for achieving the goals	L	X	Yes	-	-	-	Effective	1	0	0
3	Management allocates appropriate resources to accomplish goals and manage the program.	L	-	-	-	X	Yes	Effective	0	0	1
4	Management assigns responsibility and accountability for implementing and maintaining the program.	L	X	Yes	X	Yes	-	Effective	1	1	0
5	SSHE MS performance has been reported to top management periodically.	L	-	-	-	X	Yes	Effective	0	0	1
6	Recognition, reinforcement, and rewarding of all SSHE innovations, initiatives, desired behaviors, and outcomes	L	-	-	-	X	Yes	Effective	0	0	1
7	Management is involved in monitoring the corrective/preventive actions of the Incident Investigation.	L	-	-	-	X	Yes	Effective	0	0	1
8	Management is involved in following up on corrective actions from the SSHE audits.	L	-	-	-	X	Yes	Effective	0	0	1
Score (%)									100.0%	100.0%	100.0%
Total Section Score									4	4	4

Example of SSHE MSV Scoring Book

SSHE Management System Verification Scoring Book				
Summary of SSHE MS Implementation Effectiveness Score				
Asset/Project Name	SSHE MSV Score			
Asset/Project Name	3.3			
	Practices Score		Result Score	
	3.6		3.3	
	Content	Deployment	Conformance	Performance
	3.6	3.7	3.6	3.0

### Scoring Input Table

Sections	Content	Deployment	Conformance
1(1). Leadership and commitment	4	4	4
1(2). SSHE Policy, Strategic Objectives and Planning	3	4	3
1(3). Resources, Organization, Roles, Responsibilities and Authorities	4	4	4
1(4). Legal Management	3	3	3
1(5). Communication	4	4	4
1(6). Document Management	4	2	4
1(7). Monitoring, Measurement, Analysis and Performance Evaluation	4	4	3
1(8). Audit and Review, Nonconformity & Action Management	4	4	3
2(1). Waste Management	3	3	4
2(2). Spill Management	4	4	4
2(3). Biodiversity and Ecosystem Services Management	4	4	4



**APPENDIX F: EXAMPLE AUDIT FINDING REPORT**

No.	Finding type	Auditor name or audit team	Finding severity	Finding description	Potential consequence and impact	Reference or Audit criteria	Recommendation for improvement	Action party
1	NC	Team 1	High	Observed 2 Contractors entered to the vessel (confined space). Gas checking (Lower Explosive Limit (LEL), Oxygen, Toxic gas) was not performed prior to entering to the vessel.	Contractor(s) death in confined space due to asphyxiates.  Potential impact: Two fatalities	<ul style="list-style-type: none"> <li>ISO45001 Clause 8.1: Operational Planning and Control</li> <li>Confined space procedure</li> </ul>	<ul style="list-style-type: none"> <li>Gas checking (Lower Explosive Limit (LEL), Oxygen, Toxic gas) shall be performed and recorded prior to entering to the vessel.</li> <li>Re-communicate to all concerned parties for ensuring that people who work involved with the confined space activities understand all related rules and safe practices.</li> </ul>	SSHE Supv.
2	OBS	Mr.Abc	Low	Found site's Routine Job Card Procedure, Rev.0, issued Dec.2012 on document database was not reviewed every 5 years to comply with Corporate SSHE Documentation Management Standard (11038-STD-SSHE-304)  However, there is no change on requirements in the Procedure.	Not conform with Corporate StandardNo legal penalty  Potential impact: A nonconformity is raised by audit party	<ul style="list-style-type: none"> <li>SSHE Documentation Management Standard (11038-STD-SSHE-304)</li> </ul>	All SSHE documents shall be reviewed every 5 years to comply with Corporate SSHE Documentation Management Standard (11038-STD-SSHE-304)	SSHE Supv.
3	OFI	Mr.Abc	N/A	Refer to checklist-bulk transfer to vessel, it should identify operational control criteria into this document e.g., maximum pressure for transferring of dry bulk from silo tank to vessel not exceeded than 45 psi (3.1 bar) and as per other operation ranges.	N/A	N/A	It is more effective to identify control criteria in the checklist additionally.	SSHE Supv.
4	BP	Team 2	N/A	PTW audit set up as a personal KPI for all staff and also overall % PTW audit set at > 20 %.	N/A	N/A	No action	N/A



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## เอกสารแนบที่ 6

แบบฟอร์มร้องเรียน และแผนผังการรับเรื่องร้องเรียน

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# แผนผังการรับข้อร้องเรียน

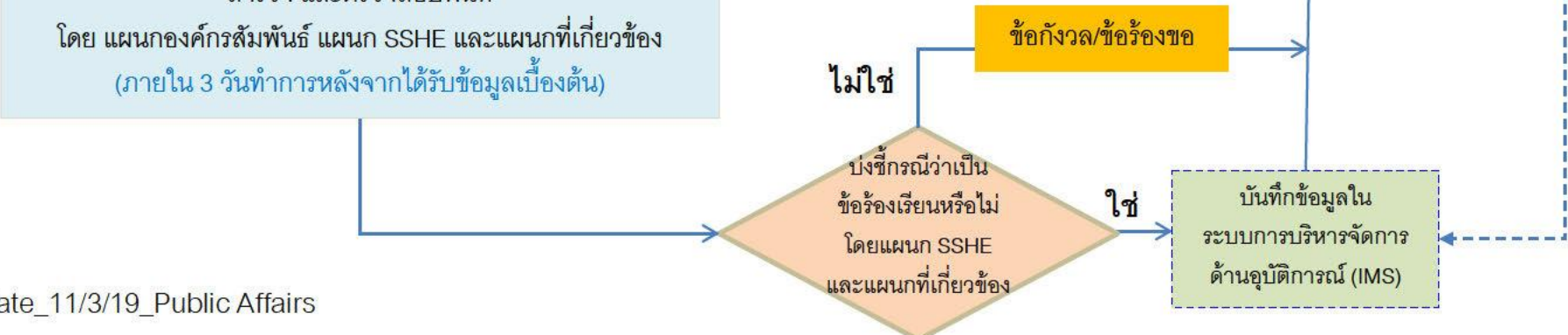
(ปตท.สผ. โครงการสุพรรณบุรี)

รับข้อร้องเรียน/ข้อกังวล/ข้อร้องขอเบื้องต้น (ตลอด 24 ชม.)

วิธีการติดต่อ	ช่องทางการรับเรื่อง
แจ้งข้อมูลโดยตรง	ผู้นำชุมชน / ผู้นำท้องถิ่น / ส่วนราชการ / เจ้าหน้าที่รักษาความปลอดภัย (Helper) / บริษัทฯ ผู้รับเหมา / พนักงาน ปตท.สผ. / แผนกองค์กรสัมพันธ์ ปตท.สผ.
โทรศัพท์	(เบอร์รับแจ้งเรื่อง ข้อกังวล / ร้องเรียน) 081-931-3804
จดหมาย	ผู้จัดการอาวุโส ฝ่ายปฏิบัติการผลิต โครงการสินภู่อ้อมและโครงการสุพรรณบุรี
Social Network	Line Group / Facebook : ผู้นำชุมชน ผู้นำท้องถิ่น บริษัทฯ ผู้รับเหมา ของ ปตท.สผ. โครงการสุพรรณบุรี

สอบถามข้อมูลโดยละเอียดจากผู้แจ้ง และประสานหน่วยงานที่เกี่ยวข้อง โดย แผนกองค์กรสัมพันธ์ (ภายใน 24 ชม.หลังได้รับแจ้ง)

สำรวจ และตรวจสอบพื้นที่  
โดย แผนกองค์กรสัมพันธ์ แผนก SSHE และแผนกที่เกี่ยวข้อง  
(ภายใน 3 วันทำการหลังจากได้รับข้อมูลเบื้องต้น)



ส่วนที่ 1 : รายละเอียดของเรื่องร้องเรียน

รายละเอียดของผู้ร้องเรียน	
ชื่อ :	
ตำแหน่ง/หน่วยงาน :	
เบอร์ติดต่อ :	E-Mail :
ที่อยู่ :	

รายละเอียดของเรื่องร้องเรียน	
เรื่องร้องเรียน :	
สถานที่ :	วัน/เวลาที่เกิดเหตุ :
เกิดเหตุ/ความเสียหายอะไรขึ้น :	
มีผลกระทบ/ความเสียหายที่เกิดขึ้นอะไรบ้าง :	

ผลการตรวจสอบ:

แผนที่/ภาพประกอบ:

สำหรับเจ้าหน้าที่			
ผู้ตรวจสอบที่ 1		วันที่รับเรื่องร้องเรียน	
ผู้ตรวจสอบที่ 2		วันที่ตรวจสอบ	
ผู้ตรวจสอบที่ 3		ชื่อโครงการ	
<p>ประเภทเรื่องร้องเรียน: <input type="checkbox"/> สิ่งแวดล้อม <input type="checkbox"/> การประกอบอาชีพ <input type="checkbox"/> ความปลอดภัย</p> <p><input type="checkbox"/> อื่นๆ (โปรดระบุ): _____</p>			

ส่วนที่ 2 : การดำเนินงานต่อเรื่องร้องเรียน

รายละเอียดของการดำเนินงานต่อเรื่องร้องเรียน		
วันที่	การดำเนินงาน	หน่วยงาน

แผนที่/ภาพประกอบ:

แบบฟอร์มร้องเรียน

GRIEVANCE RECORD FORM

ส่วนที่ 3 : การยุติเรื่องร้องเรียน

จากการร้องเรียนต่อการดำเนินงานของบริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด (มหาชน) หรือ ปตท.สผ. ดังรายละเอียดในส่วนที่ 1 ซึ่งทาง ปตท.สผ. ได้รับเรื่องร้องเรียน และได้ดำเนินการแก้ไขในเรื่องร้องเรียนดังกล่าว จนเป็นที่เรียบร้อยแล้วพึงพอใจต่อผู้ร้องเรียน ดังรายละเอียดในส่วนที่ 2 นั้น บัดนี้ทางผู้ร้องเรียนขอยุติเรื่องร้องเรียนดังกล่าว

ลงนามรับรองการยุติเรื่องร้องเรียน			
ชื่อ	ตำแหน่ง	ลายเซ็น	วันที่
	ผู้ร้องเรียน		
	ตัวแทนชุมชนสัมพันธ์ ปตท.สผ.		
	ตัวแทนแผนก SSHE ปตท.สผ.		
	ตัวแทนจากแผนกที่ เกี่ยวข้อง		
	พยาน		
	พยาน		

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## เอกสารแนบที่ 7

Land Transport Management Procedure

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**PTT Exploration and Production Public Company Limited**

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**Land Transport Management Procedure**

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**Document Code: 11017-PDR-LOG-4301-R00**

**Revision: 00**

**24<sup>th</sup> June 2019**

Approval Register	
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Function	Title	Name	Signature	Date
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	ETN	Chansin K.		21/6/2019
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	PGP	Anusorn W.		21 Jun 19
	PSB	Prapon C.		21/6/2019
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Document Owner:	PSM	Chula M.		24 Jun - 19.
Approved By:				

Document Revision History			
Rev.	Description of Revision	Revised by	Date
00	Original Version	Pornpasu K./ Veeraphong P.	21/06/2019
This document will be reviewed 5 years from date of approval or revised earlier if necessary.			

## Table of Contents

<b>1.0 Purpose</b>	<b>1</b>
<b>2.0 Scope</b>	<b>1</b>
<b>3.0 Reference</b>	<b>2</b>
3.1 <i>PTTEP Internal References</i>	2
3.2 <i>External References</i>	2
<b>4.0 Definitions</b>	<b>3</b>
4.1 <i>General Definitions</i>	3
4.2 <i>Organization and Departments</i>	5
4.3 <i>Language</i>	6
4.4 <i>Common Acronyms</i>	6
<b>5.0 Roles &amp; Responsibilities</b>	<b>7</b>
5.1 <i>Ownership of the Document</i>	7
5.2 <i>Custodian of the Document</i>	7
5.3 <i>Key Personnel Roles and Responsibilities</i>	7
<b>6.0 Land Transport Management Procedure</b>	<b>10</b>
6.1 <i>Land Transport Management</i>	10
6.2 <i>Driver Management</i>	13
6.3 <i>Vehicle Management</i>	17
6.4 <i>Journey Management</i>	23
6.5 <i>Incident Reporting Requirements</i>	26
6.6 <i>Off-road Operation Variations</i>	28
<b>7.0 Appendices</b>	<b>29</b>
7.1 <i>Reference to IOGP</i>	29
7.2 <i>Vehicle Specifications</i>	30
7.3 <i>Journey Management Checklist</i>	31
7.4 <i>Journey Management Assessment and Approval Form</i>	32
7.5 <i>Road/Vehicle Incident Checklist</i>	34
7.6 <i>Variations for Off-road Operations</i>	35

## 1.0 PURPOSE

The purpose of this document is to define the minimum requirements to be implemented by each Asset and/or Department, in order to manage land transport activities that safely, efficiently and effectively transport hydrocarbon, non-hydrocarbon and people in PTTEP's domestic operations. Asset and/or Department should develop procedures and control measures in alignment with this document.

The appropriate industrial practices in the International Association of Oil and Gas Producers (IOGP) Guidelines are adopted in the document with the recognition of related legislation, regulations and laws. All land transport activities shall comply with all applicable laws and regulations.

This document is not intended to replace any legislation or regulatory requirement. In the event of a conflict between the requirements of this document and a relevant law or regulation, the law or regulation must be followed. If the document creates a higher obligation, it should be followed as long as full compliance with the law or regulation is also achieved.

## 2.0 SCOPE

The document is developed to cover all land transport activities in Thailand Assets and Departments, which includes;

- All Company's and Contractor's vehicles and drivers operating on the company roads and premises;
- All Company's and Contractor's vehicles and drivers operating on public roads and in public areas on the company business; and
- All land transport activities including personnel and freight movements, and mobile plant activities under control of the Company.

Contractor includes all subcontracted activities.

The document does not cover:

- Rail transport which is managed and controlled by State Railway of Thailand; and
- Loading, offloading, and lifting operations from/to the vehicles



### 3.0 REFERENCE

#### 3.1 PTTEP Internal References

Internal documents applicable to this document are indicated in the table below.

Document Number	Document Title
10009-STD-OLG-0001-R00	Value Chain Management Standard
11017-STD-LOG-4301-R00	Land Transport Management Standard
11038-STD-SSHE-000-R05	SSHE Management System
11038-STD-SSHE-305-R05	SSHE Training and Competency Standard
11038-STD-SSHE-401-R06	SSHE Risk Management Standard
11003-STD-SSHE-590-005-R02	Chemical Management Standard
11038-STD-SSHE-600-011-R06	Incident Management Standard
11038-STD-SSHE-570-012-R05	Management of Change Standard
11038-STD-SSHE-595-013-R01	Life Saving Rules Standard
SSHE-106-PDR-521	Waste Management Procedure
11003-GDL-SSHE-561-005-R01	Fitness to Work Guideline
SSHE-106-GDL-564	Drugs and Alcohol Guideline

#### 3.2 External References

External documents applicable to this document are indicated in the table below.

Document Number	Document Title
IOGP Report 365	Land Transportation Safety Recommended Practice
IOGP Report 365-1	Road Hazard Assessment
IOGP Report 365-2	Journey Management
IOGP Report 365-4	Road/vehicle Accident Checklist
IOGP Report 365-5	Common KPIs for Motor Vehicle Crashes
IOGP Report 365-7	Variations for Off-road Operations

Document Number	Document Title
IOGP Report 365-10	Journey Management Process
IOGP Report 365-14	Vehicle Specification and Upfitting
IOGP Report 365-18	Load Securement
ECE/TRANS/257	European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
	Thailand's National Provisions for Transport of Dangerous Goods by Road, Department of Land Transport
	European Best Practices Guidelines on Cargo Securing for Road Transport, European Commission
	Guide to Maintaining Roadworthiness Commercial Goods and Passenger Carrying Vehicles (Rev. 2018), Driver and Vehicle Standards Agency (DVSA), UK

## 4.0 DEFINITIONS

### 4.1 General Definitions

Terminology	Description
<b>Bus</b>	A motor vehicle having a design Gross Vehicle Weight (GVW) of more than 3,500 kg with nine or more useable seat positions including the driver.
<b>Company</b>	PTT Exploration and Production Public Company Limited and its subsidiary companies
<b>Company Site Representative</b>	Individual appointed by the Contract Holder with single point responsibility for the activity management of the Contract and verification that the control mechanisms are in place
<b>Contract Holder</b>	Company staff who is appointed to be the contract focal point
<b>Escalating Factors</b>	Factors which will increase risks of the journey, for example; <ul style="list-style-type: none"> <li>• Fog or smoke;</li> <li>• Poor drainage/frequent mud;</li> <li>• Snow and Ice; <ul style="list-style-type: none"> <li>o Shadowed areas (slow to thaw);</li> <li>o Known drifting locations;</li> <li>o Over-graded shoulders;</li> <li>o Frost heaving (muskeg);</li> <li>o Runoff, thaw/freeze cycle;</li> </ul> </li> </ul>



Terminology	Description
	<ul style="list-style-type: none"> <li>• Crosswinds/blowing snow;</li> <li>• Weight restrictions (road/bridges);</li> <li>• Sun (e.g. low angle in winter);</li> <li>• Road surface liable to deteriorate rapidly when wet;</li> <li>• Low illumination;</li> <li>• Driver experience;</li> <li>• Fatigue/low alertness;</li> <li>• Conflicting priorities (e.g. crew change);</li> <li>• 3rd party conflict (traffic conditions)/animals;</li> <li>• Rain; <ul style="list-style-type: none"> <li>o Visibility, pooling on roads</li> </ul> </li> <li>• Winds or Strong/gusting crosswinds</li> </ul>
<b>Heavy Vehicle</b>	Any motor vehicle having a design capacity Gross Vehicle Weight (GVW) of more than 3,500 kg and which is designed to pull a trailer or carry cargo.
<b>Journey Manager</b>	Person who is responsible for the implementation of the defined journey management plan and monitors progress and responds to deviations and/or emergencies.
<b>Journey Management Authorized Person</b>	Person who is appointed by Asset/Department and responsible for the approval of journey and the journey management plan.
<b>Light Vehicle</b>	Any motor vehicle having a design Gross Vehicle Weight (GVW) less than or equal to 3,500 kg. Vehicles, which fall into this category, include all saloons, hatchbacks, light station wagons (i.e. estate versions of saloons), pick-up trucks and vans/minibuses.
<b>Motor Vehicle</b>	Any vehicle that is propelled by an engine fitted within the body of the vehicle.
<b>Non-Routine Trip</b>	Travel outside of a pre-determined locale, as determined by a risk assessment. Hazards are considered to require assessment prior to each trip to address immediate exposures as well as factors of change and escalation. Each trip requires the formal approval based on the current and anticipated exposures, and established controls.
<b>Professional Driver</b>	Person who has a specific duty to perform driving activity for the Company business, e.g., Company's drivers, road tanker drivers, etc.



Terminology	Description
<b>Regular Driver</b>	Person who has to regularly drive a vehicle to perform the Company business, but driving is not his/her specific duty, e.g. an onshore field operator, etc.
<b>Routine Trip</b>	Travel within a pre-determined locale, as determined by a risk assessment. Hazards are believed to be effectively, essentially and readily addressed by established and implemented controls. This locale would be expected to be no greater than that of an urban area, plant facility, or production field.  Interurban trips, inter-facility and inter-field trips would be considered to be non-routine based on increased exposure due to anticipated escalating risk factors.
<b>Supervisor</b>	A person within an organization who supervises a person or a group of persons for carrying out a task.
<b>Van (Minibus)</b>	A motor vehicle having a design Gross Vehicle Weight (GVW) less than or equal to 3,500 kg and eight to fourteen useable seat positions including the driver.

## 4.2 Organization and Departments

In this document, the terms relating to organization have the following meanings:

Terminology	Description
<b>Corporate</b>	The PTTEP Business Groups hierarchically above Asset level, and located in the PTTEP headquarters, Bangkok.
<b>Functional Group</b>	The Corporate-Level Business Groups which may have associated Divisions, Departments, or operational Assets within their hierarchy.
<b>Division</b>	A Business Group which may have one or more distinct groups within its hierarchy.
<b>Asset</b>	An operational Asset, site, or location within a respective Function Group.
<b>Department</b>	A subgroup within a Function Group, Division or Asset.

### 4.3 Language

In this document, the words may, should, and shall have the following meanings:

<b>May</b>	Indicates a <b>possible</b> course of action
<b>Should</b>	Indicates a <b>preferred</b> course of action
<b>Shall</b>	Indicates a course of action with a <b>mandatory</b> status

### 4.4 Common Acronyms

Set out below are common specific terms presented in alphabetical order:

<b>Acronyms</b>	<b>Definition</b>
DDC	Defensive Driving Course
DIW	Department of Industrial Works, Ministry of Industry
DLT	Department of Land Transport, Ministry of Transport
DOEB	Department of Energy Business, Ministry of Energy
FDS	Fatigue Detection System
GCW	Gross Combination Weight
GPS	Global Positioning System
GVW	Gross Vehicle Weight
IOGP	International Association of Oil and Gas Producers
IVMS	In-Vehicle Monitoring System
JMP	Journey Management Plan
MDVR	Mobile Digital Video Recorders
MS	Management System
SSHE	Safety, Security, Health and Environment



## 5.0 ROLES & RESPONSIBILITIES

### 5.1 Ownership of the Document

The owner of the Land Transport Management Procedure is SVP, Supply Chain Management Division with responsibilities for:

- Issuing the Land Transport Management Procedure and its revisions.
- Ensuring effective implementation of the Procedure.

### 5.2 Custodian of the Document

The custodian of the Land Transport Management Procedure is VP, Logistics Department with responsibilities for:

- Identifying deficiencies or potential improvements.
- Initiating periodic revision.
- Maintaining revision history and document status register.

### 5.3 Key Personnel Roles and Responsibilities

All EVPs and SVPs
<ul style="list-style-type: none"><li>• Ensure and encourage the Assets and support functions under his/her responsibility comply with requirements defined in this Procedure.</li><li>• Communicate with his/her authority at each field performing their activities in compliance with the requirements in this Procedure.</li><li>• Demonstrate commitment by ensuring that resources are made available for implementing this Procedure in Thailand Assets.</li></ul>



VPs and Managers
<ul style="list-style-type: none"><li>• Implement land transport in accordance to this Procedure to ensure safe, efficient and effective land transport activities that all hazards and risks from land transport are properly managed.</li><li>• Manage land transport resources and activities optimally, using minimum fit-for-purpose resources and managing land transport risks.</li><li>• Plan the projects, contracts and operations to minimize exposure to land transport hazards.</li><li>• Ensure site specific documents/instructions are developed as required and in alignment with this Procedure.</li></ul>

- Ensure that staff and Contractors in his/her area understand and comply with this Procedure.
- Ensure that PTTEP personnel and Contractors in his/her area receive the required training related to land transport, and are competent and fit for the tasks.
- Monitor, analyze and continuously improve performance.
- Assist in investigation of all land transport incidents.

#### **Corporate Logistics**

- Provide necessary support and advice to Assets for the effective implementation of this Procedure.
- Monitor effectiveness of this Procedure, and provide necessary advice to improve land transport performance.
- Conduct the land transport compliance audits to ensure the effective implementation of this Procedure and continuous improvement.

#### **SSHE Representative**

- Support line/Assets Management in developing, amending and implementing documentation in accordance with requirements in this Procedure to ensure that all Land Transport related hazards and risks are managed to minimize risks/incidents.
- Provide necessary support/advice for the training related to land transport which is required for PTTEP personnel and Contractors.
- Provide necessary support/advice for effectiveness of this Procedure, and for improvement of land transport SSHE performance, e.g. compliance audits.
- Cooperate with Corporate Logistics and SSHE for any support/advice as necessary.

#### **Contract Holders**

- Manage land transport activities under the contract to comply with the requirements in this Procedure.
- Identify land transport training requirements for Contractor personnel and ensure that Contractor personnel receive the required training.



- Plan the contracts and duty operations to minimize exposure to land transport hazards, i.e. journey management to minimize road exposure.

**Contractors**

- Understand and manage land transport activities to comply with the requirements in this Procedure.
- Ensure that Contractor personnel receive the required training related to land transport, and are competent and fit for the tasks.
- Clearly define expectations, commitments, roles and responsibilities for all personnel, including subcontractors and third party companies to implement this Procedure.

**Drivers (Company and Contractors)**

- Comply with the PTTEP Land Transport Management Procedure.
- Comply with all legal requirements and relevant Company procedures related to driving including journey management, load securement, operation of vehicles in hazardous areas and transport of hazardous goods.

**All PTTEP employees or Contractors staff**

- Comply with the PTTEP Land Transport Management Procedure, i.e. wearing seatbelts, not exceeding speed limits, no using mobile phone or texting while driving, etc.
- Apply Stop Work Authority when there is an immediate threat to the Safety and Health of the employees or that of others or to the environment.

## 6.0 LAND TRANSPORT MANAGEMENT PROCEDURE

### 6.1 Land Transport Management

Land transport is the vital means of transport supporting PTTEP's business throughout the value chain. PTTEP aims to manage land transport activities that safely, efficiently and effectively transport hydrocarbon, non-hydrocarbon and people in PTTEP's operations. Land Transport Management Framework is essential for the safe, efficient and effective operations, comprising the management of the three fundamentals (Driver, Vehicle and Journey) that is underpinned by the seven elements of PTTEP SSHE Management System (11038-STD-SSHE-000-R05). SSHE MS is the foundation for operational and risk control.

The structure of PTTEP Land Transport Management Framework is shown in Figure 1.



Figure 1: Land Transport Management Framework

#### 6.1.1 Hydrocarbon Land Transport

Hydrocarbons produced from PTTEP operations are in the form of natural gas, crude oil, and condensate. The crude oil road tankers (tanker trucks) is the main means of PTTEP hydrocarbon land transport. As the transport of dangerous goods, PTTEP hydrocarbon land transport shall comply with applicable laws and regulations. As references, the followings are the examples of regulations on transport of dangerous goods by road.

- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)



- Thailand's National Provisions for Transport of Dangerous Goods by Road, issued by Department of Land Transport (DLT)

### 6.1.2 Non-Hydrocarbon Land Transport

PTTEP Non-hydrocarbon land transport refers to cargo, goods and equipment transported by road. The non-hydrocarbons can be generally categorized as follows:

- Tubulars, e.g. Oil Country Tubular Goods (OCTG) and line pipe
- Dangerous goods and chemical supplies/products
- Dry bulk, e.g. dry chemicals, cement and barites
- Liquid bulk, e.g. base oil
- Hazardous wastes and substances
- Drilling and well service equipment e.g. wellhead, liner hanger, packer and Christmas tree components
- Engineering and Construction materials, spare parts and equipment
- Explosive materials
- Consumables materials
- Etc.

All non-hydrocarbon which is defined as dangerous goods shall comply with applicable laws and regulations. Moreover, the dangerous goods shall be handled and transported in accordance with:

- Chemical Management Standard (11003-STD-SSHE-590-005-R02)
- Waste Management Procedure (SSHE-106-PDR-521)

### 6.1.3 People Land Transport

People (Personnel) land transport is defined as personnel travel for Company Business.

The followings are Company's general requirements for people land transport.

- Company-arranged transport operated by Company or Contractor is recommended.
- The use of heavy vehicles, motorcycles, bicycles and unconventional vehicles e.g. All-Terrain Vehicles (ATV), Utility Terrain Vehicles (UTV), or similar are prohibited for people land transport.
- Vehicles shall not carry passengers exceeding the recommendation by the vehicle manufacturer in compliance with applicable laws and regulations.

#### 6.1.4 Application

This procedure apply to all work-related land transport activities on the Company business. Work-relatedness is used to describe those activities of which management controls have to be in place. In general, the following land transport activities are considered to be work related.

##### **Transport of Personnel:**

###### **Considered to be work-related**

- Personnel traveling for the Company business in Company arranged transport (pooled cars, allocated/positioned cars, vans, buses and minibuses).

###### **Not considered to be work-related**

- PTTEP and Contractor personnel commuting between home and normal work place using means of transport other than Company arranged transport;
- Using of positioned or allocated cars on private purpose and not for the Company business; or
- Use of PTTEP provided transport for non-business related activities such as recreation or sporting activities

##### **Transport of Goods and Equipment:**

###### **Considered to be work-related**

- Transport of goods and equipment within PTTEP managed locations;
- Transport of goods and equipment on PTTEP owned or contracted transport;
- Transport of goods and equipment readily identifiable as related to the PTTEP operations (e.g. seismic vehicles, land drilling rigs, etc.) within PTTEP managed locations and/or under PTTEP control; or
- Transport of goods and equipment via the land transport operations are considered to be work-related when there is PTTEP cargo on board and/or a PTTEP nominated location is the destination, with the road haulier working exclusively for PTTEP on that trip.

###### **Not considered to be work-related**

- Those activities which are not primarily dedicated to the transport of goods and equipment for PTTEP and which are not readily identifiable as related to PTTEP.

In addition to the above-mentioned descriptions, work-related land transport activities should refer to the latest IOGP Safety Data Reporting User Guide – Scope and Definitions.

### 6.1.5 Deviation

Deviations should only be considered in the circumstances as indicated below. The journey with deviation should be considered as Non-Routine Trip, and the non-routine journey management process should be applied as per Section 6.4.

- Call-off contracts where vehicles are required on an irregular basis. The call-off contract period should be short-term and not more than 90 days.
- Contracts with a very small land transport element

The recognition of Management of Change Standard (11038-STD-SSHE-570-012-R05) should be taken.

## 6.2 Driver Management

Drivers indicated in this document means:

- **Professional Driver** who has specific duty to perform driving activities for Company business which can be Company staffs or Contractor/Subcontractor's personnel who provide driving services as a part of their employment e.g. Company's drivers, crude oil road tanker drivers etc.; and
- **Regular Driver** who has to regularly drive a vehicle to perform Company business, but driving is not his/her specific duty, e.g. onshore field operators and maintenance operators etc.

### 6.2.1 Driver Competency

Driver skills, knowledge and behaviors have a significant impact on driving safety. Drivers shall be appropriately licensed, trained, and qualified to operate the vehicle safely.

#### 6.2.1.1 Driving License

All drivers shall have in their possession a valid driving licence, issued by Department of Land Transport (DLT), for the class of vehicle being driven/operated, and for the cargo where applicable.

#### 6.2.1.2 Driver Training

Drivers shall be appropriately trained and have the competency to operate the vehicle in accordance with applicable laws and regulations and the requirements in SSHE Training and Competency Standard (11038-STD-SSHE-305-R05). The training schemes shall be in place including refresher training and assessment.

#### **Defensive Driving Course (DDC):**

All Professional Drivers and Regular Drivers shall complete DDC and assessment from PTTEP approved institutions/training providers, according to related regulations and PTTEP requirements. Refresher training and assessment shall be provided on a regular basis as identified in SSHE Training and Competency Standard (11038-STD-SSHE-305-R05).

While all efforts should be made to comply with the DDC requirement, the exception of DDC may be accepted for following conditions:

- Short-term contracts which the period is not more than 90 days (DDC will not be exempted for the contract extension period.)
- Call-off contractors which are required on an irregular basis, and are not continuous operation. The call-off contractor should have the purpose to service extra/additional requirements due to unavailability of existing vehicles, e.g. extra carpool vehicles. The call-off contract period should be short-term and not more than 90 days.

For this exception, safety control measures shall be in place in order to properly manage and control risks.

### **Other Specific Training**

For other specific training, e.g. legal requirements, high-risk environments (mountain, desert, off-road, swamp, etc.), specialized vehicles and specific operations, the drivers should also receive the specific training.

### **6.2.2 Driver Fitness To Work**

Drivers shall be fit-to-drive and be fully alert while operating a vehicle. Drivers shall be assessed to ensure they are fit to drive/work and able to operate a vehicle safely.

#### **Driver Fitness To Work Requirements:**

- All drivers shall have the medical examinations with a minimum follow-up, in compliance with applicable laws and regulations, and in accordance with Fitness to Work Guideline (11003-GDL-SSHE-561-005-R01).
- A process of “Fit-to-drive Assessment” should be in place to check whether the drivers are fit to drive, including but not limited to, fatigue, sleep disorders, drug/alcohol abuse and illness.
- **No Alcohol or Drugs While Driving:** All drivers are prohibited to drive the vehicle for PTTEP’s work related business while under the influence of alcohol or drugs. Zero Tolerance Alcohol limit is applied to all staff and Contractors. Drug and Alcohol Testing Program shall be in place and conducted for drivers.

#### **Drivers shall:**

- Only operate a vehicle if appropriately rested and alert.
- Not exceed driving and duty hours as per the legal requirements.
- Take prescribed rest breaks and the daily rest as per the legal requirements.
- Exercise their right to refuse to drive if they feel that they are not fully rested and alert.
- Advise their Supervisor if they have a disability or condition that could prevent them from driving safely.
- Always inform Supervisor if taking medication that may have an adverse effect on driving performance. If in doubt always check with Supervisor in order to further seek medical advice.

Examples of medications that may have a profound effect on driving ability are:

- Sleeping tablets;

- Anti-depressants;
- Anti-anxiety tablets;
- Certain cold remedies;
- Certain painkillers; or
- Certain drugs for high blood pressure;

Drivers taking the medications that may profoundly affect the driving ability are not allowed to operate vehicles.

### 6.2.3 Duty, Driving and Rest Hours

At the minimum, drivers shall comply with the legal requirements of duty, driving and rest hours. Supervisor shall monitor and ensure that the legal requirements are adhered to by all drivers. For drivers working with or transporting dangerous goods, the legal requirements is more stringent.

With reference to Labor Protection Act B.E. 2541 (1998) and Land Transport Act B.E.2522 (1979), the legal requirements of duty, driving and rest hours for land transport are shown in the table below.

Condition	Thai Legal Requirements
<b>Normal Working Hours<sup>1</sup></b>	<ul style="list-style-type: none"> <li>• Maximum 8 hour/day (48 hour/week)</li> <li>• Maximum 7 hour/day (42 hour/week) for working with or transporting dangerous goods</li> </ul>
<b>Overtime Working Hours<sup>1</sup></b>	Maximum 2 hour/day (with a written agreement between employer and driver)
<b>Minimum Break</b>	<ul style="list-style-type: none"> <li>• Minimum 30-minute Break for every 4 hours continuous driving<sup>2</sup></li> <li>• Minimum 1-hour Break in total per day<sup>1</sup></li> </ul>
<b>Daily Rest Period<sup>1</sup></b>	Minimum 10 consecutive hours (after finish working on the day before)

Table 1: Legal Requirements of Duty, Driving and Rest Hours

#### References:

<sup>1</sup> Labor Protection Act B.E. 2541 (1998) and Ministerial Regulation No. 12 B.E. 2541(1998)

<sup>2</sup> Land Transport Act B.E.2522 (1979)

### 6.2.4 General Driving Requirements

All drivers operating vehicles for Company business and passengers traveling for Company business shall comply with general driving requirements as follows:



#### 6.2.4.1 Seatbelts

- Drivers and all passengers shall always wear a seat belt while in a moving vehicle.
- Seatbelts for front seat occupants and outboard passengers should be of the 3-point configuration, preferably incorporating automatic retraction and deceleration activated emergency locking mechanisms, often referred to as “inertia reels”.
- For buses, coaches, vans/minibuses, the minimum requirements are that 3-point seat belts are fitted for the driver, front seats and seats with open space in front (such as a seat adjacent to a doorway). Remaining seats should be fitted with 2-point lap type seatbelt if possible.
- Use of vehicles not properly fitted with seat belts for all passengers should be avoided when alternatives are available.

#### 6.2.4.2 Distracted Driving and Smoking

- Drivers shall not operate a vehicle when using a mobile phone or while being distracted from the task of driving. Examples of distractions are using a mobile phone or pager, sending or reading a text message and using a hands-free mobile phone device.
- Use of two-way radios should be kept to the minimum necessary communication.
- Smoking is not permitted in Company’s vehicles or in any vehicles on Company business.

#### 6.2.4.3 Speed Limits

- All drivers shall abide by the legal speed limits on public roads as per laws and regulations, or Company established speed limits for the different road types and vehicle types.
- When driving within site complexes or compounds, all drivers shall abide by the stated speed limits of the site.
- Further the speed shall be adjusted as appropriate when:
  - Driving in high community area;
  - There is a specific speed limit on a signpost;
  - The vehicle is heavily loaded or towing a trailer;
  - A safe distance from the car in front has to be maintained;
  - Driving at a speed that will allow the driver to stop well within the safe distance; or
  - In bad weather or hazardous road conditions, e.g. poor visibility, wet road, road works or heavy traffic, and pedestrians or animals on the road.

#### 6.2.4.4 Use of Headlights

- All Company and contracted vehicles should be driven with dipped headlights (low beam) switched on when the visibility is poor, e.g. during rain and poor lighting conditions.
- Heavy Vehicles including tankers, trucks, trailers and commuting buses should be driven with dipped headlights (low beam) at all times when travelling on the highway.



#### 6.2.4.5 Vehicle Breakdown

- All drivers shall be given and familiarized with an emergency contact card that contains the phone numbers of emergency services and other key contact phone numbers, in order to request for support as soon as possible.
- If the vehicle breakdowns on the road, the driver should try to bring the vehicle to park on the “safe” road side if possible. If not, the driver shall give warning signals (lights) to other road users as many as possible to avoid further incident. The driver and passengers should safely get out and stay away from the vehicle in the safe area.
- The driver has to place a reflective warning triangle and/or cones at least 50 m. to the rear of the vehicle and to the front when considered necessary.
- In case of breakdown during daylight, the utmost efforts should have to be made to ensure the recovery should be done before night time to reduce the additional hazards due to darkness.

### 6.3 Vehicle Management

Vehicle is one of the major components for land transport safety and efficiency. Accordingly, this section determines the specifications and requirements of vehicles, load and cargo securement. It also underlies the requirements of vehicle inspections and maintenance, and In-Vehicle Monitoring System (IVMS).

#### 6.3.1 Vehicle Specifications

Vehicles shall be fit-for-purpose based on assessment of usage, and shall be maintained in a safe working order in line with manufacturer's specifications and comply with legal requirements.

The detailed requirements of vehicle specifications are shown in Appendix 7.2.

#### 6.3.2 Tyre Requirements

Tyres are critical to overall performances of vehicle especially road safety. A tyre burst could lead to a complete loss of vehicle control.

The following Company's requirements shall be applied to all Company's and Contractor's vehicles.

- All vehicles shall be fitted with tyre type, size and specifications as per the vehicle manufacturer's recommendations for the road surfaces and weather circumstances.
- For light vehicles, retreaded, recapped and remoulded tyres shall not be used.
- For heavy vehicles, the use of retreaded, recapped and remoulded tyres is not recommended.
- Tyre shall be replaced and shall not be used when:
  - The tread depth is equal to or less than 3.0 mm.
  - The tyre has a break in its fabric or has a cut that exceeds 20 mm of the section width measured on the outside of the tyre and deep enough to reach ply or body cords.
  - The tyre has any portion of its ply or cord structure exposed, or has any lump, bulge or tear caused by separation or partial failure of its structure.

- Tyre inflation pressures shall be regularly checked by drivers when the tyre is cold. Tyres shall be maintained and inflated in accordance with the vehicle manufacturer's recommendation for tyre inflation pressure.
- Drivers shall inspect the tyres prior to the journey or on a daily basis for signs of uneven wear, damage, minimum tread depth and correct pressure as a part of Daily Inspections by Driver indicated in Section 6.3.4.1.

### 6.3.3 Load and Cargo Securement

During transport, all loads/cargo items shall be prevented from sliding, tipping, rolling, wandering or substantial deformation and rotation in any direction by restraining methods.

All loads/cargo transported via land transport methods shall be:

- Suitably prepared and packaged for safe transport in/on the type of vehicle selected for transport.
- Correctly and securely restrained to the vehicle in or on which it is being transported. The following basic restraining methods can be used separately or in combination.
  - Locking
  - Blocking
  - Direct Lashing
  - Top-over Lashing
- Fully compliant with applicable regulations related to cargo loading, securement and transport. Gross Vehicle Weight (GVW), Gross Combination Weight (GCW) and the axle weight shall comply with the limits for each vehicle type according to the manufacturer's specifications and legal limits.

The driver has the primary responsibility for ensuring that all loads are properly secured before and during the journey. Supervisor is responsible for ensuring the driver is trained and competent in load securement and that appropriate practices are followed for safe and proper load securement.

**Drivers** shall:

- Be trained and competent in load securement. Helpers and/or personnel performing load and cargo securement operations shall also be trained and competent in load securement.
- Ensure loads/cargo are properly secured. Necessary securing/lashing equipment and additional equipment are properly applied. The securing arrangements do not damage the goods transported.
- Ensure the loads and passenger numbers do not exceed the manufacturer's specifications and legal limits for the vehicle, including consideration for Gross Vehicle Weight (GVW), Gross Combination Weight (GCW) and the axle weight.
- Keep the passenger compartment of the vehicle free from loose objects that may lead to driver distraction or become hazardous projectiles if a rollover or abrupt vehicle maneuver occurs.
- Inspect all securement devices (chains, binders, straps, etc.) and attachment points prior to use.
  - Chains and binders with damaged, stretched, or bent components shall not be used and shall be taken out of service.

- Straps with tears, holes, knots, damage, deterioration, or abrasions shall not be used and shall be taken out of service.
- Attachment points that are damaged, worn, or otherwise not suitable or adequate for securing the load, shall not be used.
- Inspect and be satisfied that the entire load is adequately positioned and secured according to the requirements of all applicable laws and regulations prior to departure on a journey.

The cargo, or any other object, should not:

- Obscure the truck driver's view ahead, or to the sides, or the field of view of rear mirrors.
- Prevent the driver's free and ready access to equipment required for emergencies,
- Prevent the free and ready exit from the vehicle.
- Inspect the load and its securement during the journey in accordance with Journey Management Plan (JMP) and/or the rest stop schedule. Inspections may be needed more frequently based on the types of freight being secured and/or the road and terrain being covered. The driver shall stop only in places that provide adequate space and security to allow for safe inspections. Road shoulders and on/off ramps shall not be used for this purpose.
- Drive smoothly, i.e. adapt the speed to the circumstances so as to avoid brisk change of direction and heavy breaking. Accordingly, the forces exerted by the cargo will remain low and should not encounter problems.

**Supervisors shall:**

- Ensure that Gross Vehicle Weight (GVW), Gross Combination Weight (GCW) and the axle weight do not exceed the manufacturer's specifications and legal limits for the vehicle.
- Ensure proper and adequate load securement devices and associated equipment is available and serviceable.
- Verify drivers and helpers are competent in load securement.

### **6.3.4 Vehicle Inspection and Maintenance**

This section contains requirements to ensure the continuity of vehicle roadworthiness. The systematic and regular preventive maintenance program containing vehicle inspections, scheduled maintenance and servicing shall be in place for all Company's vehicles and Contractor's vehicles operated for Company business. The preventive maintenance program ensure that problems can be corrected before they result in major repair or vehicle breakdown.

#### **6.3.4.1 Roadworthiness Inspections**

Vehicle safety inspections are very important to ensure the roadworthiness of a vehicle. The advantage of a thorough inspection is detection of problems at an early stage so that preventive maintenance, rather than breakdown maintenance, can be carried out, leading to the reduction of downtime and costly major repairs. There are three types of essential inspections – which differ in scope and depth.

The three types of inspection are:

- Daily Inspections by Driver

- Statutory Safety Inspections
- Pre-mobilization Inspections

### **Daily Inspections by Driver**

The driver is responsible for the condition of the vehicle while in use; therefore, conducting a daily inspection is a vital part of a driver's core role. The daily inspection for Company's and Contractor's vehicles shall be properly performed. The daily inspections also includes reporting and recording defects for further rectification.

The appropriate checklist for vehicle inspection should be used and applied for the daily inspection. For specialized or specific vehicles e.g. tanker trucks and vacuum trucks, the specific vehicle inspection checklist may be developed and used as appropriate.

#### **Drivers shall:**

- Perform a daily inspection before a vehicle is used. The recommendation is to carry out the daily inspection before driving the vehicle on the road each day. Where more than one driver will use the vehicle during the day's running, the driver taking charge of a vehicle should make sure it is roadworthy and safe to drive by carrying out their own daily inspection.
- Report to Supervisor on any defects, or symptoms of defects, that could prevent the safe operation of the vehicles. In addition to daily inspections, Driver shall monitor the roadworthiness of vehicle when being driven, and be alert to any indication that the vehicle is developing a fault e.g. warning lights, vibrations or other symptoms. When a vehicle is on site work, Driver should walk around the vehicle before leaving the site to identify any faults.
- Not use the vehicle on the road until it is repaired/rectified if any safety defects that may affect the roadworthiness of the vehicle are found.
- Be adequately trained to perform the daily inspection of particular vehicle type.

#### **Supervisors shall:**

- Ensure that vehicle defects are being reported and that repairs are made before a vehicle is put back into use, and/or any appropriate action is taken according to defects found from the inspection. This includes taking the vehicle out of service if necessary.
- Ensure reporting and recording the results of daily inspections that may affect the roadworthiness of the vehicle is in place. This shall include how they were rectified before the vehicle is used. Daily inspections are vital, and the results of such checks should be recorded as a part of the maintenance system.
- Ensure the daily inspection reports are properly recorded and kept.

### **Statutory Safety Inspections**

All Company's and Contractor's vehicles shall pass all relevant safety inspections as required by laws and regulations, for instance, the annual safety inspection of vehicle as required by DLT, and DOEB's testing/inspection requirements of oil tank (road tankers).

### **Pre-mobilization Inspections**

To ensure that Contractor's vehicles dedicated to use for Company Business are properly assessed to confirm the compliance with Company's requirements, contract terms and

conditions before commencing services, Pre-Mobilization Inspection is required before the vehicle is brought into use with Company.

Pre-Mobilization Inspection is mandatory for following vehicles.

- **Dedicated Vehicles first brought into use:** A vehicle which is first brought into use with Company
- **Dedicated Vehicles being returned to use:** A vehicle has been off the road for a period longer than the planned maintenance inspections, it should be given Pre-Mobilization Inspection, prior to being brought back into use.

For the gap and finding from inspection, corrective action and rectification shall be carried out and completed by Contractor, prior to use of the vehicle.

**Contract Holder / Company Site Representative** shall:

- Ensure that Pre-Mobilization Inspections are performed for dedicated vehicles.
- Conduct Pre-Mobilization inspections in accordance with Company's requirements, contract terms and conditions. The inspections may be conducted with support from SSHE Representative.
- Evaluate the gap between Company's requirements and existing conditions of vehicles, and inform Contractor for corrective action and rectification.
- Follow up the corrective action and rectification performed by Contractor.

#### 6.3.4.2 Maintenance Requirements

The followings are Company's requirements including planned maintenance servicing and unplanned repairs carried out as a result of breakdown, poor vehicle performance and defects found from inspections to be applied to all Company's Vehicles and Contractor's vehicles operated for Company business.

- The preventive maintenance program shall be in place (time-based or mileage-based) in accordance with the vehicle manufacturer's recommendation.
- Manufacturer's standard service instructions and dimensions for repair and replacement shall be followed.
- All maintenance shall be carried out by competent agents or qualified personnel, trained and experienced in a vehicle that they inspect or maintain.
- The servicing maintenance intervals, parts, lubricants and consumables shall be in accordance with manufacturer's standard instructions and specifications.
- Parts and accessories shall be in safe and proper operating condition at all times.
- Replacement parts shall be designed for the particular application for which they are used and must meet manufacturer's standard specifications. Where practical, replacement parts certified by a recognized industry standards testing organization should always be used; and replacement parts shall be properly installed.
- Wear limits and tolerances used for maintenance shall be in accordance with manufacturer's recommendation.
- All vehicles shall be properly lubricated and free of fluid, oil and grease leaks
- Records of all services, repairs and maintenance with details shall be properly kept.

### 6.3.5 In-Vehicle Monitoring System (IVMS)

In-Vehicle Monitoring System (IVMS) refers to electronic devices in a vehicle that record data about driver's behaviors and vehicle use, combined with purpose-designed computer software to enable the owner or a third party to track and monitor the vehicle's location and driver's behaviors. Modern vehicle tracking systems commonly use Global Positioning System (GPS) technology for locating the vehicle. The additional devices, e.g. Mobile Digital Video Recorders (MDVR) and Fatigue Detection System (FDS) can be used to enhance the safety control.

The use of IVMS is not only useful for the incident investigation, but also for the improvement of driver behaviors which may lead to benefits such as reductions in vehicle crash rates, speeding events and kilometers driven as well as cost savings associated with reductions in crashes and fuel consumption.

#### 6.3.5.1 IVMS Installation Requirements

At a minimum, all vehicles operated for Company business shall comply with IVMS installation requirements and features as required by DLT and DIW as applicable.

IVMS installation with the real-time monitoring system is recommended for vehicles used for Company business. The features of IVMS should include:

- Measure of acceleration, deceleration and speed;
- Setting of threshold for acceleration, deceleration, maximum speed and time over maximum speed;
- Recording of events that exceed set thresholds;
- Driver identification;
- Kilometres/miles driven; and
- Driving hours

The scope of IVMS implementation and requirements depends on the risk assessment result and/or operations which require close monitoring and control of driver's behaviors. The additional devices/features, e.g. Mobile Digital Video Recorders (MDVR) and Fatigue Detection System (FDS), may be required as appropriate.

#### 6.3.5.2 Driver Behavior Monitoring

Assets, Departments and Contractors should assign a responsible person to regularly monitor and report professional drivers' performance and behaviors from IVMS data including MDVR and FDS (if applicable), measured from the predetermined set of parameters and thresholds. The comments and feedbacks on improvement for professional drivers' performance and behaviors should be provided to the drivers.

The assigned person should have roles and responsibilities as follows:

- Regularly monitor data/records of professional drivers' performance and behaviors from IVMS. The real-time monitoring system of IVMS is recommended.
- Download, retrieve and analyse data/records of professional drivers' performance and behaviors from IVMS on a regular basis (at least once a month).
- Prepare the report of professional drivers' performance and behaviors including the violations e.g. exceeding speed limit, driving hours and rest hours.
- Submit the report to line supervisor of the drivers and concerned parties.



- Provide comments and feedbacks on improvement for professional drivers' performance and behaviors.

## 6.4 Journey Management

All land transport journeys of Company and Contractors should be minimized by considering the necessity of travel and alternate options/means of transport.

Following four basic principles that apply to journey management are:

- Challenge the need to travel
- Consider alternative options
- Assess the hazards
- Make a reasoned choice

The following figure demonstrates the decision making for journey with consideration for trip necessity and non-driving alternative. Journey Management Checklist (Appendix 7.3) provides guidance on questions to be asked according to the four basic principles.

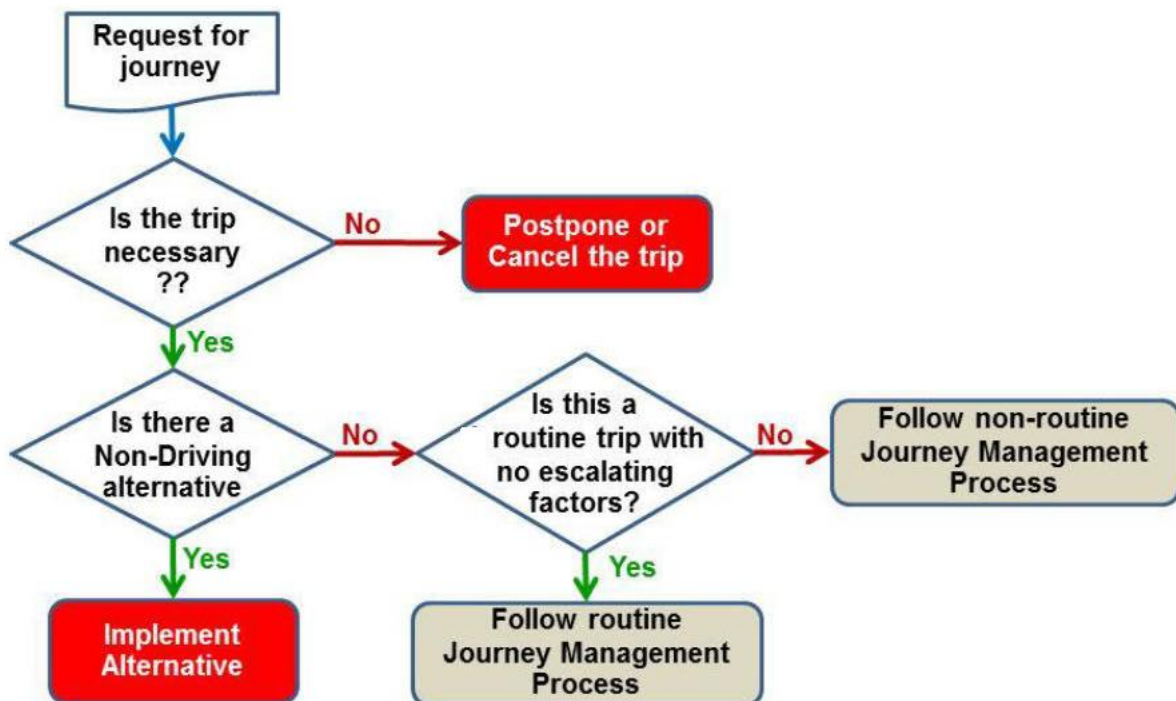


Figure 2: Journey Management Decision Making Flowchart

### 6.4.1 Journey Management Plan

Journey Management Plan (JMP) is part of a journey management and is the agreed plan between Driver and Supervisor. Supervisor managing the journey is called Journey Manager. The JMP covers the time between departure and arrival at the final destination. The JMP details the safest route in order to avoid or mitigate any potential hazards en route, and includes relevant information to be implemented and followed, e.g. route survey, route map, rest stop schedule, vehicle inspection, speed limit, alternate driver and communication method etc.

Journey Management Assessment and Approval Form (Appendix 7.4) can be used for the trip evaluation of risk level and the preparation of JMP.

The JMP should include the consideration for the following points:

- Formal pre-trip briefings are held. This should include a discussion between driver(s) and Journey Manager of routes, stops, hazards, loads, safe speeds, elimination/avoidance of distractions, the requirements for the driver to report completion of the journey, and contingency plans, etc.
- A timeline should be developed for the journey.
- The route to be travelled is clearly defined and mapped.
- Establish a communications protocol, including consideration for mobile communication “dead spots”.
- Potential driving hazards, especially dangerous intersections, are identified in advance, taking into consideration for the terrain, time of the day, weather, known dangerous routes, speed limits, holidays (especially those which involve fasting or alcohol), etc.
- Appropriate vehicles are assigned to the journey taking into account the hazards identified, including any special considerations, for the journey (terrain, weather, high risk crossings, road conditions, etc.).
- Only qualified drivers are assigned with valid driving/operator’s licence for the type of vehicles to be used.
- Drivers are physically and mentally fit, giving particular attention to past working hours, driving hours and rest hours as per the legal requirements.
- Vehicles are inspected using an appropriate checklist before the journey begins.
- Rest stops are scheduled.
- The use of convoys where two or more vehicles are proceeding to the same location at the same time. Convoy procedures should be developed and implemented for this situation.
- Assessment of risk should consider the risk of dust, smoke, fog, heavy rains, storms, extremes in temperature and security risks.
- An estimation of the expected arrival time at the destination is made. Necessary action should be taken to initiate a contingency plan in the event that the traveler does not arrive at the set time.
- The driver(s) clearly understand his/her responsibility to report completion of the trip to Journey Manager.



The JMP may be exempt for:

- Routine trips or routine activities which specific controls and safety measures are in place, implemented and followed
- Journeys during emergency situations

## 6.4.2 Journey Management Process

For all routine and non-routine trips, following elements are to be checked, verified and assessed before starting the journey.

- **Driver** is qualified and fit to drive e.g. adequate rest and no fatigue.
- **Vehicle** is in good conditions and suitable for the journey.
- **Road and Weather** conditions are acceptable for the journey.

### 6.4.2.1 Routine Journey Management Process

Risk assessment of each predetermined routine trip should be conducted, and JMP should be prepared and followed by driver. As long as the routine trip has no escalating risk factors, the predetermined JMP can be maintained and followed. In case of changes associated with risk exposure and route, the JMP should be properly reviewed.

The figure shown below demonstrates the process of Routine Journey Management.

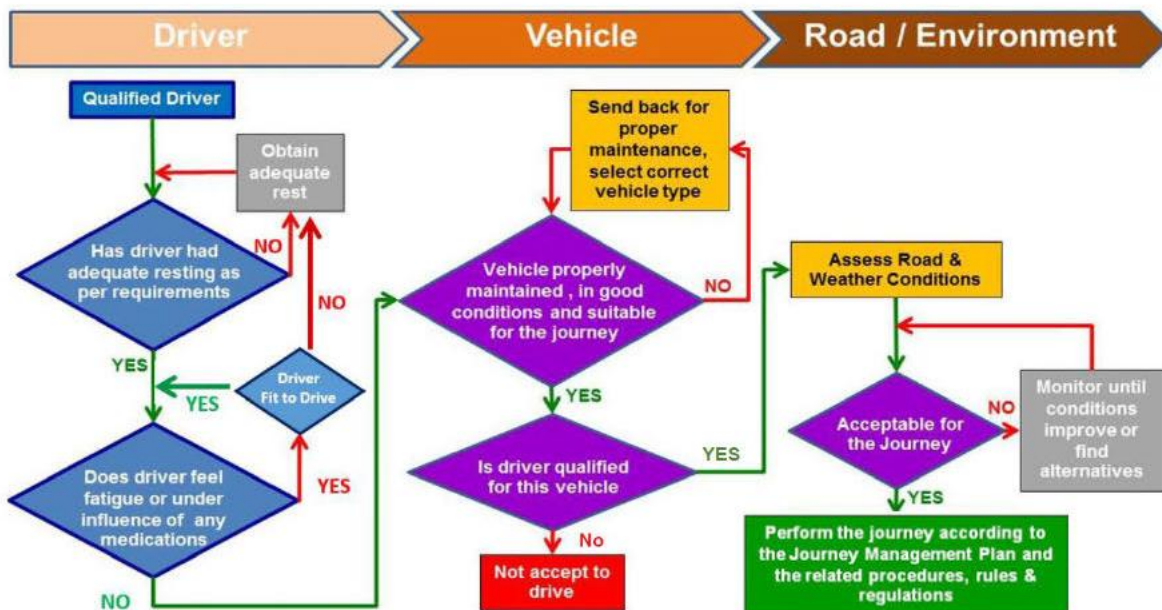


Figure 3: Routine Journey Management Process

### 6.4.2.2 Non-Routine Journey Management Process

Asset and/or Department which involve in land transport activities/operations shall appoint Journey Management Authorized Person(s) who is responsible for the approval of journey management with the following requirements for non-routine trip.

- The full implementation of JMP for each non-routine trip is required. Risk assessment shall be conducted and documented.
- JMP shall be prepared, documented and followed by driver.

- All non-routine journeys and its JMP shall be approved by Journey Management Authorized Person(s) before starting the journey. The approval may be multi-level as appropriate.

The figure shown below demonstrates the process of Non-Routine Journey Management.

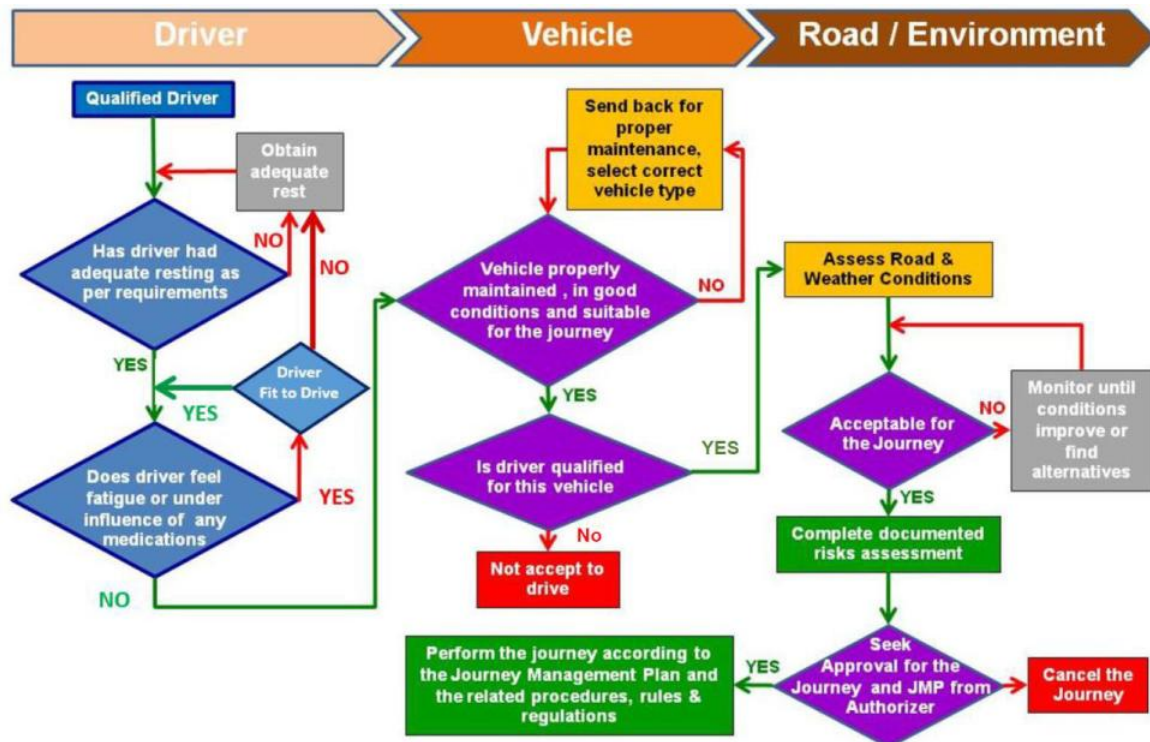


Figure 4: Non-Routine Journey Management Process

Assets and Departments should take recognition of the following references when carrying out risk assessments:

- SSHE Risk Management Standard (11038-STD-SSHE-401-R06)
- Life Saving Rules Standard (11038-STD-SSHE-595-013-R01)
- IOGP Report 365-1: Road Hazard Assessment

## 6.5 Incident Reporting Requirements

All road incidents involving PTTEP or Contractor vehicles shall be notified, classified, reported and investigated in accordance with Incident Management Standard (11038-STD-SSHE-600-011-R06). The incidents shall be managed and recorded in Incident Management System (IMS) throughout the process until completion and close out.

At the scene of the incident:

- Take care to avoid further injury or damage from other traffic.
- If the driver or passenger is a qualified first aider, first aid may be performed for life saving, but do not move casualties unless there is a high potential of the vehicle explosion.
- Place a reflective warning triangle and/or cones at least 50 m. to the rear of the vehicle and to the front when considered necessary.

- Where the third party is involved and the vehicle is damaged, if necessary the driver may call the police for a formal report to be made. It is recommended not to move the vehicle until the police have given authority to do so, unless there are other risks if the vehicle is not moved.
- Inform PTTEP's local office in each area according to the local Emergency Response and/or Incident Reporting Procedure in each area.
- Be polite but do not admit liability or discuss blame.
- If hazardous loads carried, assess damage and carry out action specified in Safety Data Sheets.
- Do not allow smoking near the vehicle in case of fuel leaks.
- Write down information that will be helpful for and contribute to accident investigation.

All Contractors shall have a contingency plan that deals with emergency response to a road incident. These plans must be regularly communicated and cascaded down to the drivers.

### **Vehicle Crash Definition**

Work-related vehicle damage or personal injury due to a vehicle related event, e.g. collision or rollover.

The following should not be reported as a motor vehicle crash when the vehicle is properly parked:

- Injuries that occur when entering or exiting the vehicle
- Any event involving loading or unloading from the vehicle
- Another vehicle crashes into the parked vehicle.

In addition, the following should not be reported as a motor vehicle crash:

- Damage to or total loss of a vehicle solely due to environmental conditions or vandalism
- Damage related to the theft of a vehicle
- Superficial damage, such as a stone/rock chip damaging a windscreen/or paintwork while the vehicle is being driven.
- An event where there has been no collision or any other damage than to the vehicle itself, this includes but not limited to: engine fire, losing a wheel and brake failure while maintaining control of the vehicle.

The evidence at the scene of a road accident is often short lived and therefore prompt action is required. Road/Vehicle Incident Checklist (Appendix 7.5) should be used as an aid-memory during the site investigation.



## 6.6 Off-road Operation Variations

Off-road operations are defined as where:

- All driving is strictly off-road, or
- A driver operates predominantly off-road, with less than 20 km per day driven on hardtop roads and with more than four hours driving off-road on average per day.




Variations of various land transport subjects should be followed for the off-road operations, detailed in Appendix 7.6.

## 7.0 APPENDICES

### 7.1 Reference to IOGP

Section No.	Section Title	IOGP Reference
6.2.1	Driver Competency	IOGP Report 365 (3.6)
6.2.2	Driver Fitness To Work	IOGP Report 365 (3.7, 3.8)
6.2.4	General Driving Requirements	IOGP Report 365 (3.4, 3.5)
6.3.1	Vehicle Specifications	IOGP Report 365-14
6.3.3	Load and Cargo Securement	IOGP Report 365 (3.2)
		IOGP Report 365-18
6.3.4.1	Roadworthiness Inspections	IOGP Report 365 (3.1)
6.3.5	In-Vehicle Monitoring System (IVMS)	IOGP Report 365 (3.3)
6.4	Journey Management	IOGP Report 365 (3.9)
		IOGP Report 365-1
		IOGP Report 365-2
		IOGP Report 365-10
6.5	Incident Reporting Requirements	IOGP Report 365-4
		IOGP Report 365-5
6.6	Off-road Operation Variations	IOGP Report 365-7

## 7.2 Vehicle Specifications

<div> <div>TYPE OF VEHICLE</div> <div>VEHICLE SPECIFICATION REQUIREMENT</div> </div>	 Light vehicles	 Heavy vehicles	 Buses and coaches
The vehicle's colour should be in light colour or high visibility colour.	▲	●	●
Seatbelts (all seats)	●	●	●
Air bags (where possible, but at least driver's seat and front passenger seat)	●	▲	▲
Head restraints (all seats)	●	●	●
Laminated glass windscreen, and tempered safety glass in all other windows.	●	●	●
Driver and passenger side mirrors	●	●	●
Tinted film is allowed to fix, however, the minimum VLT (Visible Light Transmittance) of the wind screen should be ≥ 75% and the VLT of other windows should be ≥ 35%.	●	●	●
Anti-lock brakes (ABS)	●	▲	●
High-mount brake light and turn-signal lights	●	●	●
Climate control, i.e. air conditioner and/or heater as appropriate to ambient climatic conditions	●	●	●
Fog lights and/or corresponding high-visibility tail light	●	●	●
Tyres to match manufacturer loads and speed ratings.	●	●	●
Suitable spare wheel and tyre	●	●	●
First aid kit, flashlight / torch and fire extinguisher	●	●	●
Disabled vehicle marker (e.g. warning triangle and cones)	●	●	●
IVMS where applicable Ref 6 3.5	▲	▲	▲
Vehicle life less than 7 years since first registration	▲	▲	▲
Vehicle recorded mileage less than 200,000 km with good maintenance record according to the manufacturer specifications	▲	▲	▲
Side impact protection	▲	▲	▲
Electronic stability control (ESC) or Vehicle stability control (VSC)	▲	▲	▲
Seatbelt Cutter & Window Breaker Escape Tool in case of an emergency	▲	▲	●
Other equipment and survival accessories to suit with environment, i.e., - Nature of terrain (e.g., mountain, desert, swamp, off-road operations, etc.), - Surrounding environment (e.g., dust, rain, snow, ice, fog, heat, humidity, glare, etc.)	▲	▲	▲
Heavy-duty wide-angled fully adjustable rear vision mirrors on both driver and passenger sides of the vehicle	-	●	-
Convex mirrors fitted appropriately to ensure adequate vision of blind spots, including passenger side and in front of cab-over vehicles	-	●	-
Under-run protection – both side and rear	-	●	-
Clearly visible rear and side markings, including the use of high-visibility/pulse tail and brake lights	-	●	-
Spray-suppression flaps (mud flaps)	-	●	-
Wheel-nut position indicators (that identify when wheel-nuts have loosened)	-	●	-
Reversing alarm system	-	●	●
Electronic trailer stability control	-	▲	-
Single-piece rims as available	-	▲	-
An endurance braking system (engine retarder or equivalent) for regions with steep terrains	-	▲	-
Wheel chocks	-	●	●
The passenger access door should be curb/kerb side of the bus	-	-	●
Emergency exit side windows should be installed	-	-	●
Each designated emergency exit door should have a clearly visible sign	-	-	●
Adequate segregated luggage space should be available for the maximum number of occupants	-	-	●


Remark : ● Required ▲ Optional / Recommended



### 7.3 Journey Management Checklist

Journey Management Checklist		
Questions to be asked		Checked
<b>Challenge the need</b>	• Does the task actually need a road journey?	<input type="checkbox"/>
	• Is a face-to-face meeting really necessary, or would a fax, telephone or net meeting do?	<input type="checkbox"/>
	• What are the implications of not making the journey?	<input type="checkbox"/>
	• How urgent is the task?	<input type="checkbox"/>
	• Does the task justify a special journey or it can be combined with another task/journey?	<input type="checkbox"/>
<b>Consider options</b>	• Can the vehicle be shared?	<input type="checkbox"/>
	• Can the trip be delayed?	<input type="checkbox"/>
	• Can a regular car pooling arrangement be made?	<input type="checkbox"/>
	• Can another person do the task as part of their work?	<input type="checkbox"/>
<b>Assess hazards</b>	<b>Time</b>	
	• When does the task have to be completed – perhaps the trip can be combined or rescheduled for a safer time?	<input type="checkbox"/>
	• Can the trip be made/achieved without putting pressure on the driver?	<input type="checkbox"/>
	• Can the journey avoid dawn, dusk and peak times?	<input type="checkbox"/>
	<b>Vehicle Selection</b>	
	• Do we use the right type of vehicle?	<input type="checkbox"/>
	• Is the vehicle roadworthy and is safety equipment available and serviceable?	<input type="checkbox"/>
	<b>Nominated Driver</b>	
	• Is she/he fit and healthy?	<input type="checkbox"/>
	• Is she/he qualified and authorised to drive on Company business (i.e. has the driver a PTTEP driving passport)?	<input type="checkbox"/>
	• Is she/he experienced enough for the task?	<input type="checkbox"/>
	• Is she/he fully briefed on the task, route to be used and emergency Procedures?	<input type="checkbox"/>
	• Will we remain within the permitted working hours when carrying out the journey as planned?	<input type="checkbox"/>
	<b>Load</b>	
	• Is the load too large for the vehicle?	<input type="checkbox"/>
	• Are we not overloaded?	<input type="checkbox"/>
	• Has a load securing check been made?	<input type="checkbox"/>
	• Is the load of a hazardous nature (if so, do we have the right documentation)?	<input type="checkbox"/>
	• Do we require convoy vehicles or a police escort?	<input type="checkbox"/>
	<b>Route</b>	
	• Do we maximise the time on motorways and major highways?	<input type="checkbox"/>
	• Do we really minimise time on single carriageways and urban roads?	<input type="checkbox"/>
	• Do we avoid busy roads and congested areas?	<input type="checkbox"/>
• Do we have any height or width restrictions?	<input type="checkbox"/>	
• Have rest stops been planned correctly?	<input type="checkbox"/>	
• Have night stops been planned correctly (after maximum hours driving)?	<input type="checkbox"/>	
<b>Make a reasoned choice</b>	• If, having challenged the need for the journey to be made, and if the options to minimise exposure have been considered and if hazards have been assessed and taken into account, make a s reasoned choice based on urgency, importance, and cost and, above all, safety considerations.	<input type="checkbox"/>

## 7.4 Journey Management Assessment and Approval Form

Journey Management Assessment and Approval										
		Requester				Company				
Journey management Detail										
Why this journey necessary?										
Can it be combined with other journey? If not, why?										
Will the driver reach his destination before dark?										
Vehicle/Vehicle Number										
Driver Name/Company										
From					To.					
Place	Date	Time	Place	Est. date	Est. time	Est. Distance				
Trip evaluation										
High Risk		Total $\geq 25$ points								
Medium Risk		$>15$ Total $\leq 24$ points								
Low Risk		Total $\leq 14$ points								
Total	A	B	C	D	E	F	G	H	I	J
Trip evaluation points information										
A security escort requirements		Pts	B security situation		Pts	C Weather		Pts		
No escort needed		0	No problems		0	Dry		1		
Police escort in company vehicle with 1 or 2 officers		2	Know possible problems		20	Wind		2		
Single manned patrol(Defence Vehicles, Police Vehicles and etc)		10				Rain		4		
Dual manned patrol(Defence Vehicles, Police Vehicles and etc)		20				Fog/dust		8		
D Number of vehicles&assistant driver		Pts	E Distance from base		Pts	F Road conditions		Pts		
2+ vehicles, + 1Assistant driver per vehicle		1	Less than 50 km		1	Paved		1		
1+ vehicles, + 1Assistant driver per vehicle		2	51- 100 km		2	Mixed (Less than 50% paved)		2		
1 heavy vehicle, + 1 Assistant driver per vehicle		3	101-200 km		5	Unpaved		4		
1light vehicle with no assistant driver		3	More than 200 km		11	Mountain		8		
1heavy vehicle with no assistant driver		6								
G Driver hours on duty & trip duration		Pts	H Day/night driving		Pts	J Driving contractors usage		Pts		
Driver slept >8 hrs in last 24 hrs			Day (Between 6am - 7pm), <35km		0	Permanent contract Vehicle passed inspection Driver passed DDC course		0		
Hours on duty(last 24hrs) + hours planned for trip<12hrs		0	Day (Between 6am - 7pm) >35km		5	Vehicle not passed inspected by company		10		
Hours on duty(last 24hrs) + hours planned for trip<14hrs		3	Night (Between 7pm - 6am), <20km		0	Driver not passed DDC course		10		
Hours on duty(last 24hrs) + hours planned for trip<16hrs		6	Night (Between 7pm - 6am) >20km		20	Contract vehicle without inspection by company and driver without DDC training		20		
Driver slept <8 hrs in last 24 hrs			I Communication		Pts					
Hours on duty(last 24hrs) + hours planned for trip<12hrs		2	Mobile/Satellite phone/radio		0					
Hours on duty(last 24hrs) + hours planned for trip<14hrs		5	No comms, but in a convoy		2					
Hours on duty(last 24hrs) + hours planned for trip<16hrs		8	No comms, single vehicle		4					
Hours on duty(last 24hrs) + hours planned for trip>16hrs		must rest								



Name of Passengers			
1.		7.	
2.		8.	
3.		9.	
4.		10.	
5.		11.	
6.		12.	

Route	Time Depart - Arrival	Rest; Hotel/Cab ?	Emergency Number

<b>Additional Land transportation safety measure</b> <input type="checkbox"/> Route survey <input type="checkbox"/> Route Map <input type="checkbox"/> Rest stops schedule <input type="checkbox"/> Vehicle inspection	<input type="checkbox"/> Speed limit ..... km/hr. <input type="checkbox"/> Alternate driver <input type="checkbox"/> Communication Method <input type="checkbox"/> Other.....
<b>Additional information</b>	

<b>Authorizer</b>		<b>Signature</b>	
<b>Department</b>		<b>Date</b>	

<b>Authorizer Comment</b>
---------------------------

## 7.5 Road/Vehicle Incident Checklist

Question	Yes	No	Notes
<b>Driver</b>			
Did the driver : <ul style="list-style-type: none"> <li>• Hold a valid license for the class of vehicle involved in the incident?</li> <li>• Have authority to use the vehicle?</li> <li>• Have familiarity with this specific vehicle?</li> <li>• Use the vehicle for instructed business?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the driver complete an approved driver training program?	<input type="checkbox"/>	<input type="checkbox"/>	Where & When; obtain record.
Is there evidence to suggest the driver drove the vehicle below expected standard?	<input type="checkbox"/>	<input type="checkbox"/>	Consider vehicle speed in the existing conditions?
Is there evidence to suggest the driver might have been impaired in any way?	<input type="checkbox"/>	<input type="checkbox"/>	Consider mental stress, health, alcohol, drugs, fatigue, other external influence
Wear seat belts fitted and correctly worn by all vehicle occupants?	<input type="checkbox"/>	<input type="checkbox"/>	
Was any communication device in the vehicle used during any part of the journey?	<input type="checkbox"/>	<input type="checkbox"/>	Obtain details
Had the driver completed this journey and or task previously?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Vehicle</b>			
Was the vehicle involved "Fit-For-Purpose"?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the vehicle in good operating conditions?	<input type="checkbox"/>	<input type="checkbox"/>	Maintenance records
Did the vehicle have any driving monitor, e.g., IVMS, Tachograph, etc.	<input type="checkbox"/>	<input type="checkbox"/>	Obtain & examine
Is there a record of the : <ul style="list-style-type: none"> <li>• Driver's recent work record?</li> <li>• Vehicle's recent work record?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	
Was the load including passengers secure and within legal and/or design limit of the vehicle?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the vehicle : <ul style="list-style-type: none"> <li>• Stationary?</li> <li>• Utilizing "Right of Way"?</li> <li>• Manoeuvring?</li> <li>• Other?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	What was our vehicle doing at the time of the incident?
<b>Road</b>			
Was the vehicle being used on an authorized route?	<input type="checkbox"/>	<input type="checkbox"/>	
Had the risk assessment been completed for the route or task?	<input type="checkbox"/>	<input type="checkbox"/>	
Describe the weather conditions at the time of the incident using either Good, Average or Bad?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Third PARTY</b>			
Was a third party involved?	<input type="checkbox"/>	<input type="checkbox"/>	Details
Did third party driver and/or vehicle conform to all local regulations/requirements?	<input type="checkbox"/>	<input type="checkbox"/>	
Has anyone indicated liability?	<input type="checkbox"/>	<input type="checkbox"/>	Include police or other agencies, drivers & witnesses
<b>YOU</b>			
Are there any additional comments you wish to make in respect of this incident?	<input type="checkbox"/>	<input type="checkbox"/>	

## 7.6 Variations for Off-road Operations

Land Transport Subjects	Variations for Off-Road Operations
<b>Seatbelt</b>	<p>Where an operation requires persons to stand on a vehicle while it is in motion, e.g. on land seismic operations (cable trucks), those persons are exempt from using seat belts provided:</p> <ul style="list-style-type: none"> <li>• The operation or activity is for a specific purpose, which cannot reasonably be achieved by persons restrained by seat belts;</li> <li>• The number of persons involved in the operation or activity is minimised;</li> <li>• Persons must be protected from falling off the vehicle, by guardrails or other suitable fall prevention method;</li> <li>• Where guardrails are used, they should comply with the specifications in OSHA 29 CFR 1926.502, and their effective height must not be reduced by the load carried (e.g. a bin in which a person stands filling up with cable);</li> <li>• Persons not wearing seatbelts must be able to communicate verbally with the driver, e.g. by live intercom;</li> <li>• Additional PPE may be appropriate, e.g. bump caps if there is overhead structure that may cause head injury;</li> <li>• Vehicle speed must not exceed 10 kilometers per hour while persons are unrestrained;</li> <li>• The operation or activity must be limited to benign terrain (persons must be seated and restrained, or dismount, if the vehicle has to traverse terrain likely to cause an unrestrained person to fall or be injured); and</li> <li>• Persons not restrained by seat belts are not permitted for any journey or part of a journey that is not carrying out the specified operation or activity.</li> </ul> <p>Explanatory can be found in “Note 1” indicated in IOGP Report 365-7: Variations for Off-road Operations.</p>

Land Transport Subjects	Variations for Off-Road Operations
<b>Vehicle Specifications</b>	<p>Hardware specified and available for on-road vehicles may not always be suitable or available for off-road use. In light of the lower speeds and reduced collision risk off-road, the absence of any of the items specified below should not exclude a vehicle from off-road use.</p> <ul style="list-style-type: none"> <li>• Anti-lock brakes (ABS);</li> <li>• Other electronic aids such as Electronic Stability Program (ESP) or Trailer Roll Stability Program (TRSP);</li> <li>• Air bags;</li> <li>• Side impact protection;</li> <li>• Under-run protection;</li> <li>• Other technology not available on specialised off-road vehicles where a risk assessment indicates an acceptable level of risk to operations in the absence of such technology</li> </ul> <p>Brush guards may be fitted where a risk assessment indicates that their use will be beneficial.</p> <p>Where higher speeds are permitted and appropriate for off-road, the requirement for the following items should be considered:</p> <ul style="list-style-type: none"> <li>• ABS;</li> <li>• Other electronic aids such as advanced ESP or advanced TRSP;</li> <li>• Air bags.</li> </ul> <p><u>Note:</u></p> <p>The following features may not enhance safety in off-road operations, or may not be available on some specialised vehicles without which operations would not be practicable:</p> <ul style="list-style-type: none"> <li>• Air bags – not available on tracked vehicles used in high latitudes or on some older 4x4 designs, e.g. Land Cruiser 70 Series;</li> <li>• Anti-lock brakes – increase braking distances on gravel and other loose surfaces;</li> <li>• Side impact protection – not available on many off-road vehicles;</li> <li>• Under-run protection – may “hang up” on terrain.</li> </ul>



Land Transport Subjects	Variations for Off-Road Operations
<b>Driver Competency</b>	Off-road drivers shall also receive off-road driving instruction that is specific to the terrain and environment in which they will be operating.
<b>No Alcohol or Drugs While Driving</b>	No variation
<b>Duty, Driving and Rest Hours</b>	No variation (To comply with legal requirements.)
<b>Mobile Phone Use</b>	No variation
<b>IVMS</b>	Where speed limiters are fitted and set to an appropriate speed limit commensurate with the ambient driving conditions, IVMS may not be required when based on a risk assessment approved by line management.
<b>Journey management</b>	No variation



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## เอกสารแนบที่ 8

เอกสารแสดงการตรวจสอบและบำรุงรักษา  
เครื่องยนต์ เครื่องจักร และอุปกรณ์ผลิต

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Selection field	Value
With Deletion Flag/Indicator	X
Outstanding	X
in process	X
Completed	X
Order Type	PM
From date	01.01.2024
To date	31.12.2024
Room	KS
Layout	PANUWATN

Sort criteria	Ascdg	Descnd	Subtotal
Basic start date	X		

Data statistics	Number of
Records passed	253

	S	Order	Type	UserStatus	Description	Room	Plnt	Sec start	Basic fin.	Act. start	Actual end	System status	Punc. Loc.	MntPlan	Changed by	ActStart	Act.finish
<input type="checkbox"/>		500511908	PM	COMP	PM PD Thief Hatch	KS	2101	01.01.2024	08.01.2024	07.01.2024	07.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	11:00:00	11:30:00
<input type="checkbox"/>		500511914	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	01.01.2024	08.01.2024	07.01.2024	07.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	11:45:00	12:00:00
<input type="checkbox"/>		500511904	PM	COMP	PM EL Transformer 250 KVA	KS	2101	01.01.2024	31.01.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-TR-401	PEP1KS0016	JEERAJITR	14:20:00	14:30:00
<input type="checkbox"/>		500511881	PM	COMP	PM ME Water Injection Pump First line	KS	2101	01.01.2024	08.01.2024	07.01.2024	07.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:30:00
<input type="checkbox"/>		500511979	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.01.2024	31.01.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	JEERAJITR	10:00:00	10:15:00
<input type="checkbox"/>		500511980	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.01.2024	31.01.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	JEERAJITR	10:00:00	10:15:00
<input type="checkbox"/>		500514294	PM	COMP	PM PD Thief Hatch	KS	2101	08.01.2024	15.01.2024	08.01.2024	08.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500514296	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	08.01.2024	15.01.2024	08.01.2024	08.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500514288	PM	COMP	PM ME Water Injection Pump First line	KS	2101	08.01.2024	15.01.2024	08.01.2024	08.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500514469	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	JEERAJITR	14:00:00	14:20:00
<input type="checkbox"/>		500514468	PM	COMP	PM EL Earthing Clamp	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	JEERAJITR	11:15:00	11:25:00
<input type="checkbox"/>		500514474	PM	COMP	PM ME Water Loading Pump	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	JEERAJITR	11:00:00	11:15:00
<input type="checkbox"/>		500514485	PM	COMP	PM ME Recirculation Pump	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	JEERAJITR	10:25:00	10:40:00
<input type="checkbox"/>		500514480	PM	COMP	PM ME Loading Pump	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	JEERAJITR	10:40:00	11:00:00
<input type="checkbox"/>		500514486	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	JEERAJITR	10:15:00	10:25:00
<input type="checkbox"/>		500514481	PM	COMP	PM EL Switch Gear	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-SWG-101	PEP1KS0015	JEERAJITR	13:00:00	13:25:00
<input type="checkbox"/>		500514475	PM	COMP	PM ME Heat Tracer	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	JEERAJITR	11:20:00	11:40:00
<input type="checkbox"/>		500514470	PM	COMP	PM IN Smoke Detector	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	JEERAJITR	13:25:00	13:30:08
<input type="checkbox"/>		500514448	PM	COMP	PM ME Water Injection Pump	KS	2101	09.01.2024	08.02.2024	24.01.2024	24.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	JEERAJITR	13:30:00	14:00:00
<input type="checkbox"/>		500515918	PM	COMP	PM PD Thief Hatch	KS	2101	15.01.2024	22.01.2024	21.01.2024	21.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	10:30:00	11:00:00
<input type="checkbox"/>		500515920	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	15.01.2024	22.01.2024	21.01.2024	21.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	10:30:00	11:00:00
<input type="checkbox"/>		500515912	PM	COMP	PM ME Water Injection Pump First line	KS	2101	15.01.2024	22.01.2024	21.01.2024	21.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	10:00:00	10:30:00
<input type="checkbox"/>		500517278	PM	COMP	PM PD Thief Hatch	KS	2101	22.01.2024	29.01.2024	28.01.2024	28.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	10:00:00	10:30:00
<input type="checkbox"/>		500517281	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	22.01.2024	29.01.2024	28.01.2024	28.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	10:45:00	11:00:00
<input type="checkbox"/>		500517271	PM	COMP	PM ME Water Injection Pump First line	KS	2101	22.01.2024	29.01.2024	28.01.2024	28.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:30:00
<input type="checkbox"/>		500518571	PM	COMP	PM PD Thief Hatch	KS	2101	29.01.2024	05.02.2024	29.01.2024	29.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500518573	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	29.01.2024	05.02.2024	29.01.2024	29.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500518564	PM	COMP	PM ME Water Injection Pump First line	KS	2101	29.01.2024	05.02.2024	29.01.2024	29.01.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500518920	PM	COMP	PM IN Storage Tank (Dehydration)	KS	2101	01.02.2024	02.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-103	PEP1KS0003	CHANONTO	10:00:00	11:00:00
<input type="checkbox"/>		500518906	PM	COMP	PM IN Storage Tank (Crude Oil)	KS	2101	01.02.2024	02.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-102	PEP1KS0005	CHANONTO	13:00:00	14:00:00
<input type="checkbox"/>		500518903	PM	COMP	PM IN Storage Tank (Produced Water)	KS	2101	01.02.2024	02.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-101	PEP1KS0006	CHANONTO	11:00:00	12:00:00
<input type="checkbox"/>		500518966	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.02.2024	02.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	13:00:00	13:10:00
<input type="checkbox"/>		500518967	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.02.2024	02.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	13:30:00	13:40:00
<input type="checkbox"/>		500520747	PM	COMP	PM PD Thief Hatch	KS	2101	05.02.2024	12.02.2024	09.02.2024	09.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	09:00:00	10:00:00
<input type="checkbox"/>		500520749	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	05.02.2024	12.02.2024	09.02.2024	09.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	10:00:00	10:30:00
<input type="checkbox"/>		500520739	PM	COMP	PM ME Water Injection Pump First line	KS	2101	05.02.2024	12.02.2024	09.02.2024	09.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	08:00:00	08:30:00
<input type="checkbox"/>		500522083	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	10:20:00	10:30:00
<input type="checkbox"/>		500522082	PM	COMP	PM EL Earthing Clamp	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>		500522086	PM	COMP	PM ME Water Loading Pump	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>		500522095	PM	COMP	PM ME Recirculation Pump	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>		500522091	PM	COMP	PM ME Loading Pump	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	11:00:00	11:10:00
<input type="checkbox"/>		500522096	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>		500522087	PM	COMP	PM ME Heat Tracer	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>		500522084	PM	COMP	PM IN Smoke Detector	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>		500522071	PM	COMP	PM ME Water Injection Pump	KS	2101	09.02.2024	10.03.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	10:00:00	10:10:00
<input type="checkbox"/>		500522703	PM	COMP	PM PD Thief Hatch	KS	2101	12.02.2024	19.02.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	08:30:00	09:30:00
<input type="checkbox"/>		500522705	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	12.02.2024	19.02.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	09:30:00	10:00:00
<input type="checkbox"/>		500522696	PM	COMP	PM ME Water Injection Pump First line	KS	2101	12.02.2024	19.02.2024	15.02.2024	15.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	08:00:00	08:30:00
<input type="checkbox"/>		500524441	PM	COMP	PM PD Thief Hatch	KS	2101	19.02.2024	26.02.2024	19.02.2024	19.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500524444	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	19.02.2024	26.02.2024	19.02.2024	19.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500524432	PM	COMP	PM ME Water Injection Pump First line	KS	2101	19.02.2024	26.02.2024	19.02.2024	19.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500525718	PM	COMP	PM PD Thief Hatch	KS	2101	26.02.2024	04.03.2024	29.02.2024	29.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	09:00:00	10:00:00
<input type="checkbox"/>		500525721	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	26.02.2024	04.03.2024	29.02.2024	29.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	10:00:00	10:30:00
<input type="checkbox"/>		500525712	PM	COMP	PM ME Water Injection Pump First line	KS	2101	26.02.2024	04.03.2024	29.02.2024	29.02.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	08:30:00	09:00:00
<input type="checkbox"/>		500526399	PM	COMP	PM ME Process Valve	KS	2101	01.03.2024	31.03.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0030	CHANONTO	11:00:00	12:00:00
<input type="checkbox"/>		500526429	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.03.2024	31.03.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	11:40:00	11:50:00
<input type="checkbox"/>		500527444	PM	COMP	PM PD Thief Hatch	KS	2101	04.03.2024	11.03.2024	04.03.2024	04.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500527450	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	04.03.2024	11.03.2024	04.03.2024	04.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500527437	PM	COMP	PM ME Water Injection Pump First line	KS	2101	04.03.2024	11.03.2024	04.03.2024	04.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500528674	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.03.2024	08.04.								

	S	Order	Type	UserStatus	Description	Room	Plnt	Sec start	Basic fin.	Act. start	Actual end	System status	Punc. Loc.	MntPlan	Changed by	ActStart	Act.finish
<input type="checkbox"/>		500528673	PM	COMP	PM EL Earthing Clamp	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>		500528677	PM	COMP	PM ME Water Loading Pump	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>		500528686	PM	COMP	PM ME Recirculation Pump	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>		500528682	PM	COMP	PM ME Loading Pump	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	11:00:00	11:10:00
<input type="checkbox"/>		500528687	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>		500528678	PM	COMP	PM ME Heat Tracer	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>		500528675	PM	COMP	PM IN Smoke Detector	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>		500528660	PM	COMP	PM ME Water Injection Pump	KS	2101	09.03.2024	08.04.2024	21.03.2024	21.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	10:00:00	10:10:00
<input type="checkbox"/>		500528931	PM	COMP	PM PD Thief Hatch	KS	2101	11.03.2024	18.03.2024	12.03.2024	12.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	09:30:00	10:00:00
<input type="checkbox"/>		500528933	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	11.03.2024	18.03.2024	12.03.2024	12.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:00:00	09:10:00
<input type="checkbox"/>		500528924	PM	COMP	PM ME Water Injection Pump First line	KS	2101	11.03.2024	18.03.2024	12.03.2024	12.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	08:30:00	08:40:00
<input type="checkbox"/>		500529950	PM	COMP	PM PD Thief Hatch	KS	2101	18.03.2024	25.03.2024	23.03.2024	23.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	08:00:00	08:30:00
<input type="checkbox"/>		500529952	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	18.03.2024	25.03.2024	23.03.2024	23.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	07:30:00	08:00:00
<input type="checkbox"/>		500529944	PM	COMP	PM ME Water Injection Pump First line	KS	2101	18.03.2024	25.03.2024	23.03.2024	23.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	08:30:00	09:00:00
<input type="checkbox"/>		500531123	PM	COMP	PM PD Thief Hatch	KS	2101	25.03.2024	01.04.2024	25.03.2024	25.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500531125	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	25.03.2024	01.04.2024	25.03.2024	25.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500531117	PM	COMP	PM ME Water Injection Pump First line	KS	2101	25.03.2024	01.04.2024	25.03.2024	25.03.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500531811	PM	COMP	PM PD Thief Hatch	KS	2101	01.04.2024	08.04.2024	01.04.2024	01.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500531819	PM	COMP	PM EL Earthing Pits	KS	2101	01.04.2024	01.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0027	CHANONTO	11:40:00	11:50:00
<input type="checkbox"/>		500531809	PM	COMP	PM EL Lighting and Small Power System	KS	2101	01.04.2024	01.05.2024	01.04.2024	01.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-LGHT	PEP1KS0018	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>		500531815	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	01.04.2024	08.04.2024	01.04.2024	01.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500531803	PM	COMP	PM ME Water Injection Pump First line	KS	2101	01.04.2024	08.04.2024	01.04.2024	01.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500531870	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.04.2024	01.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	11:50:00	12:00:00
<input type="checkbox"/>		500531871	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.04.2024	01.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>		500534051	PM	COMP	PM PD Thief Hatch	KS	2101	08.04.2024	15.04.2024	13.04.2024	13.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	08:10:00	08:20:00
<input type="checkbox"/>		500534053	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	08.04.2024	15.04.2024	13.04.2024	13.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	08:20:00	08:30:00
<input type="checkbox"/>		500534044	PM	COMP	PM ME Water Injection Pump First line	KS	2101	08.04.2024	15.04.2024	13.04.2024	13.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	08:00:00	08:10:00
<input type="checkbox"/>		500534185	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	10:20:00	10:30:00
<input type="checkbox"/>		500534184	PM	COMP	PM EL Earthing Clamp	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>		500534189	PM	COMP	PM ME Water Loading Pump	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>		500534199	PM	COMP	PM ME Recirculation Pump	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>		500534194	PM	COMP	PM ME Loading Pump	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>		500534200	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>		500534195	PM	COMP	PM EL Switch Gear	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-SWG-101	PEP1KS0015	CHANONTO	11:00:00	11:10:00
<input type="checkbox"/>		500534190	PM	COMP	PM ME Heat Tracer	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>		500534186	PM	COMP	PM IN Smoke Detector	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>		500534168	PM	COMP	PM ME Water Injection Pump	KS	2101	09.04.2024	09.05.2024	12.04.2024	12.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	10:00:00	10:10:00
<input type="checkbox"/>		500535091	PM	COMP	PM PD Thief Hatch	KS	2101	15.04.2024	22.04.2024	21.04.2024	21.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	09:30:00	10:00:00
<input type="checkbox"/>		500535093	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	15.04.2024	22.04.2024	21.04.2024	21.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:00:00	09:15:00
<input type="checkbox"/>		500535084	PM	COMP	PM ME Water Injection Pump First line	KS	2101	15.04.2024	22.04.2024	21.04.2024	21.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	10:00:00	10:30:00
<input type="checkbox"/>		500536282	PM	COMP	PM PD Thief Hatch	KS	2101	22.04.2024	29.04.2024	22.04.2024	22.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500536284	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	22.04.2024	29.04.2024	22.04.2024	22.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500536276	PM	COMP	PM ME Water Injection Pump First line	KS	2101	22.04.2024	29.04.2024	22.04.2024	22.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500537252	PM	COMP	PM PD Thief Hatch	KS	2101	29.04.2024	06.05.2024	29.04.2024	29.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	08:30:00	09:00:00
<input type="checkbox"/>		500537254	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	29.04.2024	06.05.2024	29.04.2024	29.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	09:00:00	09:30:00
<input type="checkbox"/>		500537245	PM	COMP	PM ME Water Injection Pump First line	KS	2101	29.04.2024	06.05.2024	29.04.2024	29.04.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	09:30:00	10:00:00
<input type="checkbox"/>		500537437	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.05.2024	31.05.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>		500537438	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.05.2024	31.05.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>		500539489	PM	COMP	PM PD Thief Hatch	KS	2101	06.05.2024	13.05.2024	06.05.2024	06.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	07:00:00	07:20:00
<input type="checkbox"/>		500539494	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	06.05.2024	13.05.2024	06.05.2024	06.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	07:30:00	07:50:00
<input type="checkbox"/>		500539472	PM	COMP	PM ME Water Injection Pump First line	KS	2101	06.05.2024	13.05.2024	06.05.2024	06.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	08:00:00	08:15:00
<input type="checkbox"/>		500540240	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	10:20:00	10:30:00
<input type="checkbox"/>		500540239	PM	COMP	PM EL Earthing Clamp	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>		500540243	PM	COMP	PM ME Water Loading Pump	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>		500540252	PM	COMP	PM ME Recirculation Pump	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>		500540248	PM	COMP	PM ME Loading Pump	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>		500540253	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>		500540244	PM	COMP	PM ME Heat Tracer	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>		500540241	PM	COMP	PM IN Smoke Detector	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>		500540227	PM	COMP	PM ME Water Injection Pump	KS	2101	09.05.2024	08.06.2024	13.05.2024	13.05.2024	TECO CN					

	S	Order	Type	UserStatus	Description	Room	Plnt	Sec start	Basic fin.	Act. start	Actual end	System status	Punc. Loc.	MntPlan	Changed by	ActStart	Act.finish
<input type="checkbox"/>		500540994	PM	COMP	PM PD Thief Hatch	KS	2101	13.05.2024	20.05.2024	15.05.2024	15.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500540997	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	13.05.2024	20.05.2024	15.05.2024	15.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500540981	PM	COMP	PM ME Water Injection Pump First line	KS	2101	13.05.2024	20.05.2024	15.05.2024	15.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500541887	PM	COMP	PM PD Thief Hatch	KS	2101	20.05.2024	27.05.2024	25.05.2024	25.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	09:00:00	09:30:00
<input type="checkbox"/>		500541889	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	20.05.2024	27.05.2024	25.05.2024	25.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	08:30:00	09:30:00
<input type="checkbox"/>		500541872	PM	COMP	PM ME Water Injection Pump First line	KS	2101	20.05.2024	27.05.2024	25.05.2024	25.05.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	09:30:00	10:00:00
<input type="checkbox"/>		500542946	PM	COMP	PM PD Thief Hatch	KS	2101	27.05.2024	03.06.2024	02.06.2024	02.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	08:30:00	08:55:00
<input type="checkbox"/>		500542948	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	27.05.2024	03.06.2024	02.06.2024	02.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:30:00	09:45:00
<input type="checkbox"/>		500542939	PM	COMP	PM ME Water Injection Pump First line	KS	2101	27.05.2024	03.06.2024	02.06.2024	02.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:15:00
<input type="checkbox"/>		500543560	PM	COMP	PM ME Process Valve	KS	2101	01.06.2024	01.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0030	CHANONTO	14:30:00	14:40:00
<input type="checkbox"/>		500543604	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.06.2024	01.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	14:40:00	14:50:00
<input type="checkbox"/>		500543605	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.06.2024	01.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	15:00:00	15:10:00
<input type="checkbox"/>		500544436	PM	COMP	PM PD Thief Hatch	KS	2101	03.06.2024	10.06.2024	03.06.2024	03.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500544438	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	03.06.2024	10.06.2024	03.06.2024	03.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500544430	PM	COMP	PM ME Water Injection Pump First line	KS	2101	03.06.2024	10.06.2024	03.06.2024	03.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500545982	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	13:20:00	13:30:00
<input type="checkbox"/>		500545981	PM	COMP	PM EL Earthing Clamp	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	13:10:00	13:20:00
<input type="checkbox"/>		500545985	PM	COMP	PM ME Water Loading Pump	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	13:40:00	13:50:00
<input type="checkbox"/>		500545995	PM	COMP	PM ME Recirculation Pump	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	14:10:00	14:20:00
<input type="checkbox"/>		500545990	PM	COMP	PM ME Loading Pump	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	14:00:00	14:10:00
<input type="checkbox"/>		500545996	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	14:20:00	14:30:00
<input type="checkbox"/>		500545986	PM	COMP	PM ME Heat Tracer	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	13:50:00	14:00:00
<input type="checkbox"/>		500545983	PM	COMP	PM IN Smoke Detector	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	13:30:00	13:40:00
<input type="checkbox"/>		500545967	PM	COMP	PM ME Water Injection Pump	KS	2101	09.06.2024	09.07.2024	11.06.2024	11.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	13:00:00	13:10:00
<input type="checkbox"/>		500546182	PM	COMP	PM PD Thief Hatch	KS	2101	10.06.2024	17.06.2024	17.06.2024	17.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	THANATHIPS	09:30:00	10:00:00
<input type="checkbox"/>		500546184	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	10.06.2024	17.06.2024	17.06.2024	17.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	THANATHIPS	10:00:00	10:30:00
<input type="checkbox"/>		500546170	PM	COMP	PM ME Water Injection Pump First line	KS	2101	10.06.2024	17.06.2024	17.06.2024	17.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	THANATHIPS	09:00:00	09:30:00
<input type="checkbox"/>		500547226	PM	COMP	PM PD Thief Hatch	KS	2101	17.06.2024	24.06.2024	19.06.2024	19.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	10:00:00	10:30:00
<input type="checkbox"/>		500547228	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	17.06.2024	24.06.2024	19.06.2024	19.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:10:00	09:20:00
<input type="checkbox"/>		500547220	PM	COMP	PM ME Water Injection Pump First line	KS	2101	17.06.2024	24.06.2024	19.06.2024	19.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:30:00	09:50:00
<input type="checkbox"/>		500548262	PM	COMP	PM PD Thief Hatch	KS	2101	24.06.2024	01.07.2024	24.06.2024	24.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500548265	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	24.06.2024	01.07.2024	24.06.2024	24.06.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500548253	PM	COMP	PM ME Water Injection Pump First line	KS	2101	24.06.2024	01.07.2024	01.07.2024	01.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500549330	PM	COMP	PM PD Thief Hatch	KS	2101	01.07.2024	08.07.2024	01.07.2024	01.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500549332	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	01.07.2024	08.07.2024	01.07.2024	01.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	13:00:00	14:00:00
<input type="checkbox"/>		500549320	PM	COMP	PM ME Water Injection Pump First line	KS	2101	01.07.2024	08.07.2024	01.07.2024	01.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500549360	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.07.2024	31.07.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	14:30:00	14:40:00
<input type="checkbox"/>		500549361	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.07.2024	31.07.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	14:40:00	14:50:00
<input type="checkbox"/>		500551490	PM	COMP	PM PD Thief Hatch	KS	2101	08.07.2024	15.07.2024	08.07.2024	08.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500551492	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	08.07.2024	15.07.2024	08.07.2024	08.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500551483	PM	COMP	PM ME Water Injection Pump First line	KS	2101	08.07.2024	15.07.2024	08.07.2024	08.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500551732	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	13:20:00	13:30:00
<input type="checkbox"/>		500551731	PM	COMP	PM EL Earthing Clamp	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	13:10:00	13:20:00
<input type="checkbox"/>		500551736	PM	COMP	PM ME Water Loading Pump	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	13:30:00	13:40:00
<input type="checkbox"/>		500551746	PM	COMP	PM ME Recirculation Pump	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	14:10:00	14:20:00
<input type="checkbox"/>		500551741	PM	COMP	PM ME Loading Pump	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	13:50:00	14:00:00
<input type="checkbox"/>		500551747	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	14:20:00	14:30:00
<input type="checkbox"/>		500551742	PM	COMP	PM EL Switch Gear	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-SWG-101	PEP1KS0015	CHANONTO	14:00:00	14:10:00
<input type="checkbox"/>		500551737	PM	COMP	PM ME Heat Tracer	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	13:40:00	13:50:00
<input type="checkbox"/>		500551733	PM	COMP	PM IN Smoke Detector	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	13:30:00	13:40:00
<input type="checkbox"/>		500551715	PM	COMP	PM ME Water Injection Pump	KS	2101	09.07.2024	08.08.2024	02.07.2024	02.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	13:00:00	13:10:00
<input type="checkbox"/>		500552549	PM	COMP	PM PD Thief Hatch	KS	2101	15.07.2024	22.07.2024	15.07.2024	15.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500552551	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	15.07.2024	22.07.2024	15.07.2024	15.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:08
<input type="checkbox"/>		500552543	PM	COMP	PM ME Water Injection Pump First line	KS	2101	15.07.2024	22.07.2024	15.07.2024	15.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500553731	PM	COMP	PM PD Thief Hatch	KS	2101	22.07.2024	29.07.2024	22.07.2024	22.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500553733	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	22.07.2024	29.07.2024	22.07.2024	22.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500553724	PM	COMP	PM ME Water Injection Pump First line	KS	2101	22.07.2024	29.07.2024	22.07.2024	22.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170038	SOMSAKC	09:00:00	10:00:00
<input type="checkbox"/>		500554876	PM	COMP	PM PD Thief Hatch	KS	2101	29.07.2024	05.08.2024	29.07.2024	29.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0029	SOMSAKC	10:00:00	11:00:00
<input type="checkbox"/>		500554878	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	29.07.2024	05.08.2024	29.07.2024	29.07.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0013	SOMSAKC	11:00:00	12:00:00
<input type="checkbox"/>		500554868	PM	COMP	PM ME Water Injection Pump First line	KS	2101	29.07.2024	05.08.2024	29.07.2024	29.07.2024	TECO CNF PRT NMAT PRC SETC					



S	Order	Type	UserStatus	Description	Room	Plnt	Sec start	Basic fin.	Act. start	Actual end	System status	Punc. Loc.	MntPlan	Changed by	ActStart	Act.finish
<input type="checkbox"/>	500555220	PM	COMP	PM IN Storage Tank (Dehydration)	KS	2101	01.08.2024	31.08.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-103	PEP1KS0003	CHANONTO	11:50:00	12:00:00
<input type="checkbox"/>	500555215	PM	COMP	PM IN Storage Tank (Crude Oil)	KS	2101	01.08.2024	31.08.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-102	PEP1KS0005	CHANONTO	11:40:00	11:50:00
<input type="checkbox"/>	500555212	PM	COMP	PM IN Storage Tank (Produced Water)	KS	2101	01.08.2024	31.08.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-TK-101	PEP1KS0006	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>	500555248	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.08.2024	31.08.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	13:00:00	13:10:00
<input type="checkbox"/>	500555249	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.08.2024	31.08.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	13:10:00	13:20:00
<input type="checkbox"/>	500557238	PM	COMP	PM PD Thief Hatch	KS	2101	05.08.2024	12.08.2024	05.08.2024	05.08.2024	TECO CNF NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	09:20:00	09:40:00
<input type="checkbox"/>	500557240	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	05.08.2024	12.08.2024	05.08.2024	05.08.2024	TECO CNF NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:50:00	10:00:00
<input type="checkbox"/>	500557222	PM	COMP	PM ME Water Injection Pump First line	KS	2101	05.08.2024	12.08.2024	05.08.2024	05.08.2024	TECO CNF NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:15:00
<input type="checkbox"/>	500558165	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	10:20:00	10:30:00
<input type="checkbox"/>	500558164	PM	COMP	PM EL Earthing Clamp	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>	500558168	PM	COMP	PM ME Water Loading Pump	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>	500558177	PM	COMP	PM ME Recirculation Pump	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>	500558173	PM	COMP	PM ME Loading Pump	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	11:00:00	11:10:00
<input type="checkbox"/>	500558178	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>	500558169	PM	COMP	PM ME Heat Tracer	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>	500558166	PM	COMP	PM IN Smoke Detector	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>	500558153	PM	COMP	PM ME Water Injection Pump	KS	2101	09.08.2024	08.09.2024	08.08.2024	08.08.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	10:00:00	10:10:00
<input type="checkbox"/>	500558596	PM	COMP	PM PD Thief Hatch	KS	2101	12.08.2024	19.08.2024	05.08.2024	12.08.2024	TECO CNF NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	09:20:00	09:40:00
<input type="checkbox"/>	500558598	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	12.08.2024	19.08.2024	12.08.2024	12.08.2024	TECO CNF NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:50:00	10:00:00
<input type="checkbox"/>	500558590	PM	COMP	PM ME Water Injection Pump First line	KS	2101	12.08.2024	19.08.2024	12.08.2024	12.08.2024	TECO CNF NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:15:00
<input type="checkbox"/>	500559707	PM	COMP	PM PD Thief Hatch	KS	2101	19.08.2024	26.08.2024	20.08.2024	20.08.2024	TECO CNF NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	09:20:00	09:40:00
<input type="checkbox"/>	500559709	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	19.08.2024	26.08.2024	20.08.2024	20.08.2024	TECO CNF NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	09:50:00	10:00:00
<input type="checkbox"/>	500559699	PM	COMP	PM ME Water Injection Pump First line	KS	2101	19.08.2024	26.08.2024	20.08.2024	20.08.2024	TECO CNF NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	09:00:00	09:15:00
<input type="checkbox"/>	500562451	PM	COMP	PM PD Thief Hatch	KS	2101	26.08.2024	02.09.2024	27.08.2024	27.08.2024	TECO CNF NMAT PRC SETC	EP1-KS	PEP1KS0029	SAHASY	07:15:00	07:30:00
<input type="checkbox"/>	500562453	PM	COMP	PM ME Chemical Injection Pump First line	KS	2101	26.08.2024	02.09.2024	27.08.2024	27.08.2024	TECO CNF NMAT PRC SETC	EP1-P-130	PEP1KS0013	SAHASY	07:35:00	07:50:00
<input type="checkbox"/>	500562445	PM	COMP	PM ME Water Injection Pump First line	KS	2101	26.08.2024	02.09.2024	27.08.2024	27.08.2024	TECO CNF NMAT PRC SETC	EP1-P-701	PEP1170038	SAHASY	07:00:00	07:10:00
<input type="checkbox"/>	500563051	PM	COMP	PM ME Process Valve	KS	2101	01.09.2024	01.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS	PEP1KS0030	CHANONTO	11:30:00	11:40:00
<input type="checkbox"/>	500563096	PM	COMP	PM EL Sucker Rod Pump	KS	2101	01.09.2024	01.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-MP-107	PEP1KS0043	CHANONTO	11:40:00	11:50:00
<input type="checkbox"/>	500563097	PM	COMP	PM ME Sucker Rod PUMP	KS	2101	01.09.2024	01.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS1-11-PU-107	PEP1KS0043	CHANONTO	11:50:00	12:00:00
<input type="checkbox"/>	500563315	PM	WEXE	PM PD Thief Hatch	KS	2101	02.09.2024	09.09.2024			REL NMAT PRC SETC	EP1-KS	PEP1KS0029	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500563318	PM	WEXE	PM ME Chemical Injection Pump First line	KS	2101	02.09.2024	09.09.2024			REL NMAT PRC SETC	EP1-P-130	PEP1KS0013	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500563300	PM	WEXE	PM ME Water Injection Pump First line	KS	2101	02.09.2024	09.09.2024			REL NMAT PRC SETC	EP1-P-701	PEP1170038	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500565366	PM	WEXE	PM PD Thief Hatch	KS	2101	09.09.2024	16.09.2024			REL NMAT PRC SETC	EP1-KS	PEP1KS0029	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500565364	PM	COMP	PM IN Emergency Shutdown System	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-CRS-ESD	PEP1KS0022	CHANONTO	10:20:00	10:30:00
<input type="checkbox"/>	500565363	PM	COMP	PM EL Earthing Clamp	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-KS-ELE-ERTH	PEP1KS0017	CHANONTO	10:00:00	10:10:00
<input type="checkbox"/>	500565369	PM	COMP	PM ME Water Loading Pump	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-129	PEP1KS0007	CHANONTO	10:40:00	10:50:00
<input type="checkbox"/>	500565382	PM	COMP	PM ME Recirculation Pump	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-127	PEP1KS0008	CHANONTO	11:10:00	11:20:00
<input type="checkbox"/>	500565378	PM	COMP	PM ME Loading Pump	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-126	PEP1KS0009	CHANONTO	11:00:00	11:10:00
<input type="checkbox"/>	500565383	PM	COMP	PM ME Chemical Injection Pump	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-130	PEP1KS0014	CHANONTO	11:20:00	11:30:00
<input type="checkbox"/>	500565370	PM	WEXE	PM ME Chemical Injection Pump First line	KS	2101	09.09.2024	16.09.2024			REL NMAT PRC SETC	EP1-P-130	PEP1KS0013	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500565371	PM	COMP	PM ME Heat Tracer	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-HT-101	PEP1KS0019	CHANONTO	10:50:00	11:00:00
<input type="checkbox"/>	500565365	PM	COMP	PM IN Smoke Detector	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-SD-101	PEP1KS0023	CHANONTO	10:30:00	10:40:00
<input type="checkbox"/>	500565343	PM	WEXE	PM ME Water Injection Pump First line	KS	2101	09.09.2024	16.09.2024			REL NMAT PRC SETC	EP1-P-701	PEP1170038	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500565344	PM	COMP	PM ME Water Injection Pump	KS	2101	09.09.2024	09.10.2024	07.09.2024	07.09.2024	TECO CNF PRT NMAT PRC SETC	EP1-P-701	PEP1170039	CHANONTO	10:10:00	10:20:00
<input type="checkbox"/>	500566163	PM	INPG	PM PD Thief Hatch	KS	2101	16.09.2024	23.09.2024			REL NMAT PRC SETC	EP1-KS	PEP1KS0029	CHANONTO	00:00:00	00:00:00
<input type="checkbox"/>	500566165	PM	WEXE	PM ME Chemical Injection Pump First line	KS	2101	16.09.2024	23.09.2024			REL NMAT PRC SETC	EP1-P-130	PEP1KS0013	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500566156	PM	WEXE	PM ME Water Injection Pump First line	KS	2101	16.09.2024	23.09.2024			REL NMAT PRC SETC	EP1-P-701	PEP1170038	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500567119	PM	INPG	PM PD Thief Hatch	KS	2101	23.09.2024	30.09.2024			REL NMAT PRC SETC	EP1-KS	PEP1KS0029	CHANONTO	00:00:00	00:00:00
<input type="checkbox"/>	500567122	PM	WEXE	PM ME Chemical Injection Pump First line	KS	2101	23.09.2024	30.09.2024			REL NMAT PRC SETC	EP1-P-130	PEP1KS0013	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500567111	PM	WEXE	PM ME Water Injection Pump First line	KS	2101	23.09.2024	30.09.2024			REL NMAT PRC SETC	EP1-P-701	PEP1170038	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500567915	PM	INPG	PM PD Thief Hatch	KS	2101	30.09.2024	07.10.2024			REL NMAT PRC SETC	EP1-KS	PEP1KS0029	CHANONTO	00:00:00	00:00:00
<input type="checkbox"/>	500567917	PM	WEXE	PM ME Chemical Injection Pump First line	KS	2101	30.09.2024	07.10.2024			REL NMAT PRC SETC	EP1-P-130	PEP1KS0013	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500567908	PM	WEXE	PM ME Water Injection Pump First line	KS	2101	30.09.2024	07.10.2024			REL NMAT PRC SETC	EP1-P-701	PEP1170038	ANURAKPE	00:00:00	00:00:00
<input type="checkbox"/>	500568017	PM	DRFT	PM IN Temp. Guage Campaign	KS	2101	01.10.2024	30.12.2024			CRTD NMAT PRC	EP1-KS	PEP1KS0031		00:00:00	00:00:00
<input type="checkbox"/>	500568016	PM	DRFT	PM IN Pressure Guage Campaign	KS	2101	01.10.2024	30.12.2024			CRTD NMAT PRC	EP1-KS	PEP1KS0028		00:00:00	00:00:00
<input type="checkbox"/>	500568057	PM	DRFT	PM EL Sucker Rod Pump	KS	2101	01.10.2024	31.10.2024			CRTD NMAT PRC	EP1-KS1-11-MP-107	PEP1KS0043		00:00:00	00:00:00
<input type="checkbox"/>	500568058	PM	DRFT	PM ME Sucker Rod PUMP	KS	2101	01.10.2024	31.10.2024			CRTD NMAT PRC	EP1-KS1-11-PU-107	PEP1KS0043		00:00:00	00:00:00
<input type="checkbox"/>	500570341	PM	DRFT	PM PD Thief Hatch	KS	2101	07.10.2024	14.10.2024			CRTD NMAT PRC	EP1-KS	PEP1KS0029		00:00:00	00:00:00
<input type="checkbox"/>	500570343	PM	DRFT	PM ME Chemical Injection Pump First line	KS	2101	07.10.2024	14.10.2024			CRTD NMAT PRC	EP1-P-130	PEP1KS0013		00:00:00	00:00:00
<input type="checkbox"/>	500570332	PM	DRFT	PM ME Water Injection Pump First line	KS	2101	07.10.2024	14.10.2024			CRTD NMAT PRC	EP1-P-701	PEP1170038		00:00:00	00:00:00

S	Order	Type	UserStatus	Description	Room	Plnt	Bec start	Basic fin.	Act. start	Actual end	System status	Punc. Loc.	MntPlan	Changed by	ActStart	Act.finish
<input type="checkbox"/>	500570542	PM	DRFT	PM IN Emergency Shutdown System	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-KS-CRS-ESD	PEP1KS0022		00:00:00	00:00:00
<input type="checkbox"/>	500570541	PM	DRFT	PM EL Earthing Clamp	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-KS-ELE-ERTH	PEP1KS0017		00:00:00	00:00:00
<input type="checkbox"/>	500570546	PM	DRFT	PM ME Water Loading Pump	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-P-129	PEP1KS0007		00:00:00	00:00:00
<input type="checkbox"/>	500570556	PM	DRFT	PM ME Recirculation Pump	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-P-127	PEP1KS0008		00:00:00	00:00:00
<input type="checkbox"/>	500570551	PM	DRFT	PM ME Loading Pump	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-P-126	PEP1KS0009		00:00:00	00:00:00
<input type="checkbox"/>	500570557	PM	DRFT	PM ME Chemical Injection Pump	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-P-130	PEP1KS0014		00:00:00	00:00:00
<input type="checkbox"/>	500570552	PM	DRFT	PM EL Switch Gear	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-SWG-101	PEP1KS0015		00:00:00	00:00:00
<input type="checkbox"/>	500570547	PM	DRFT	PM ME Heat Tracer	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-HT-101	PEP1KS0019		00:00:00	00:00:00
<input type="checkbox"/>	500570543	PM	DRFT	PM IN Smoke Detector	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-SD-101	PEP1KS0023		00:00:00	00:00:00
<input type="checkbox"/>	500570523	PM	DRFT	PM ME Water Injection Pump	KS	2101	09.10.2024	08.11.2024			CRTD NMAT PRC	EP1-P-701	PEP1170039		00:00:00	00:00:00
<input type="checkbox"/>	500571267	PM	DRFT	PM PD Thief Hatch	KS	2101	14.10.2024	21.10.2024			CRTD NMAT PRC	EP1-KS	PEP1KS0029		00:00:00	00:00:00
<input type="checkbox"/>	500571269	PM	DRFT	PM ME Chemical Injection Pump First line	KS	2101	14.10.2024	21.10.2024			CRTD NMAT PRC	EP1-P-130	PEP1KS0013		00:00:00	00:00:00
<input type="checkbox"/>	500571261	PM	DRFT	PM ME Water Injection Pump First line	KS	2101	14.10.2024	21.10.2024			CRTD NMAT PRC	EP1-P-701	PEP1170038		00:00:00	00:00:00

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## เอกสารแนบที่ 9

แผนการซ่อมบำรุงเครื่องยนต์ เครื่องจักร  
และอุปกรณ์การผลิต ประจำปี 2567

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Maintenance item overview, sorted by: Call date (all)

Objects displayed	Jan. 2024				Feb 2024				Mar 2024				Apr. 2024				May 2024				Jun. 2024				Jul. 2024				Aug. 2024				Sep 2024				Oct 2024				Nov 2024				Dec. 2024				Jan. 2025						
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	01	02	03
PEP1KS0029-PD-01 PM PD Thief Hatch	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
PEP1KS0013-ME-01 PM ME Chemical Injection Pump First line	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
PEP1KS0043-ME-01 PM ME Sucker Rod PUMP	■					■				■				■				■				■				■				■				■																					
PEP1KS0043-EL-01 PM EL Sucker Rod Pump	■					■				■				■				■				■				■				■				■																					
PEP1KS0016-EL-01 PM EL Transformer 250 KVA	■																																																						
PEP1170038-ME-01 PM ME Water Injection Pump First line	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
PEP1KS0022-IN-02 PM IN Emergency Shutdown System														■																																									
PEP1KS0022-IN-01 PM IN Emergency Shutdown System	■					■				■								■				■				■				■				■																					
PEP1KS0001-EL-01 PM EL Sucker Rod Pump	■					■				■				■							■				■				■				■																						
PEP1KS0017-EL-01 PM EL Earthing Clamp	■					■				■				■				■				■				■				■				■																					
PEP1KS0014-ME-01 PM ME Chemical Injection Pump	■					■				■				■				■				■				■				■				■																					
PEP1KS0019-ME-01 PM ME Heat Tracer	■					■				■				■				■				■				■				■				■																					
PEP1KS0008-ME-02 PM ME Recirculation Pump	■													■														■																											
PEP1KS0008-ME-01 PM ME Recirculation Pump						■				■								■				■				■				■				■																					
PEP1KS0009-ME-01 PM ME Loading Pump						■				■								■				■				■				■				■																					
PEP1KS0009-ME-02 PM ME Loading Pump	■																										■																												
PEP1KS0009-ME-03 PM ME Loading Pump														■																																									
PEP1KS0023-IN-01 PM IN Smoke Detector	■					■				■				■				■				■				■				■				■																					
PEP1KS0001-ME-01 PM ME Sucker Rod PUMP	■					■				■				■				■				■				■				■				■																					
PEP1KS0015-EL-01 PM EL Switch Gear	■													■														■																											
PEP1170039-ME-02 PM ME Water Injection Pump	■																																																						
PEP1170039-ME-01 PM ME Water Injection Pump						■				■				■				■				■				■				■				■																					
PEP1170039-ME-03 PM ME Water Injection Pump																											■																												
PEP1KS0007-ME-01 PM ME Water Loading Pump	■					■				■				■				■				■				■				■				■																					
PEP1KS0005-IN-02 PM IN Storage Tank (Crude Oil)						■																																																	
PEP1KS0005-IN-01 PM IN Storage Tank (Crude Oil)																																																							
PEP1KS0003-IN-02 PM IN Storage Tank (Dehydration)						■																																																	
PEP1KS0003-IN-01 PM IN Storage Tank (Dehydration)																																																							
PEP1KS0006-IN-02 PM IN Storage Tank (Produced Water)						■																																																	

	Jan. 2024	Feb 2024	Mar 2024	Apr. 2024	May 2024	Jun. 2024	Jul. 2024	Aug. 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan. 2025
Objects displayed	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 01 02 03 04												
PEP1KS0003-IN-01 PM IN Storage Tank (Dehydration)								■					
PEP1KS0006-IN-02 PM IN Storage Tank (Produced Water)		■											
PEP1KS0006-IN-01 PM IN Storage Tank (Produced Water)								■					
PEP1KS0030-IN-01 PM ME Process Valve			■			■			■			■	
PEP1KS0027-EL-01 PM EL Earthing Pits				■									
PEP1KS0018-EL-01 PM EL Lighting and Small Power System				■									
PEP1KS0024-IP-01 PI IP Storage Tank (Dehydration) Inspect						■							
PEP1KS0031-IN-01 PM IN Temp. Guage Campaign										■			
PEP1KS0028-IN-01 PM IN Pressure Guage Campaign										■			
PEP1KS0026-IP-01 PI IP Storage Tank (Produced Water) Insp											■		
PEP1KS0025-IP-01 PI IP Storage Tank (Crude Oil) Inspect											■		
PEP1KS0020-IP-01 PI IP Process Crude Piping Sys Inspect													
PEP1KS0021-IP-01 PI IP Process Water Piping Sys Inspect													
PEP1KS0044-IN-01 PM IN PSV Campaign													
PEP1KS0002-IN-01 PM IN PSV Campaign													
PEP1KS0004-IN-01 PM IN PSV Campaign													
PEP1KS0010-IN-01 PM IN PSV Campaign													
PEP1KS0032-EL-01 PM EL EEK EQ Inspect of KS													
PEP1KS0040-IP-01 PI IP Storage Tank (Dehydration) Inspect													
PEP1KS0041-IP-01 PI IP Storage Tank (Crude Oil) Inspect													
PEP1KS0042-IP-01 PI IP Storage Tank (Produced Water) Insp													
PEP1KS0033-IN-01 PM IN PSHH Campaign													
PEP1KS0034-IN-01 PM IN PSV Campaign													
PEP1KS0035-IN-01 PM IN PSV Campaign													
PEP1KS0037-EL-01 PM EL Sucker Rod Pump													
PEP1KS0037-ME-01 PM ME Sucker Rod Pump													
PEP1KS0038-EL-01 PM EL Sucker Rod Pump													
PEP1KS0038-ME-01 PM ME Sucker Rod Pump													
PEP1KS0001-ME-02 PM ME Sucker Rod PUMP													



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## เอกสารแนบที่ 10

แผนกิจกรรมมวลชนสัมพันธ์ ประจำปี 2567

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(Suphanburi) Public Affairs work Plan 2024

Project	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CSR												
1.Basic Need												
1.1 โครงการ ปตท.สน.รักสุขภาพ			★	★		★				★		
1.2 โครงการ "รักเพื่อนบ้าน"			★	★		★	★	★				
2. Education												
2.2 โครงการ "ฟาร์มขนาดเล็ก (Mini-Farm)"										★	★	
3. Enviroment												
3.1 โครงการปลูกต้นไม้		★						★				
3.2 โครงการรักษาแหล่งน้ำ ปตท.สน.					★							
4. Culture & Sports												
4.1 โครงการ "ส่งเสริมวัฒนธรรมถิ่น ตามรอยปราสาทศิลาพัน"											★	
4 2 กิจกรรมเสริมสร้างความสัมพันธ์กับชุมชน ในพื้นที่ปฏิบัติงาน (กีฬา)											★	
4 3 โครงการอนุรักษ์กีฬา กับ ปตท.สน. ปี 2567	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Donation & Sponsorship												
5. Basic Need												
5.1 สนับสนุนงบประมาณซ่อมแซมถนน / เส้นทางสาธารณะ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
5 2 การสนับสนุน และการบริจาคด้านความต้องการพื้นฐานของชุมชนอื่นๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
5 3 การช่วยเหลือขึ้นต้นเพื่อฟื้นฟูเยียวยาผู้ได้รับผลกระทบจากภัยธรรมชาติ อุบัติภัยต่าง ๆ อันอาจส่งผลกระทบกับการดำเนินงาน	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
6. Education												
6.1 โครงการทุนการศึกษา ปตท.สน โครงการสุพรรณบุรี										★		
6 2 โครงการกิจกรรมวันเด็กแห่งชาติ 2567	★											
6 3 การสนับสนุน และการบริจาคด้านการศึกษาอื่นๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
7. Enviroment												
7.1 การสนับสนุน และการบริจาคด้านสิ่งแวดล้อมอื่นๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
8. Culture & Sports												
8.1 การทอดกฐิน ปตท.สน. อินเตอร์เนชั่นแนล											★	
8 2 การทำบุญถวายเทียนพรรษา วัดในพื้นที่ปฏิบัติงาน							★					
8 3 การสนับสนุน และการบริจาคด้านวัฒนธรรมอื่นๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
8.4 การสนับสนุนการจัดงานประเพณี และวัฒนธรรมประจำปีของจังหวัดในพื้นที่ปฏิบัติงาน												★
9. Advertisng & Promotion												
9.1 Publication - การจัดพิมพ์หนังสือที่เกี่ยวข้องกับการปฏิบัติงาน เช่น ไดอารี่	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
9.2 Souvenir & Gift - การผลิตสิ่งของที่เกี่ยวข้องกับการปฏิบัติงาน เช่น กระเป๋า ผ้า เสื้อ อุปกรณ์อื่นๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
10. Representation & Gift												
ค่าใช้จ่ายในการเลี้ยงรับรองผู้มีส่วนได้ส่วนเสียของ บริษัท	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
การจัดซื้อของขวัญ และของที่ระลึกไม่เกินชิ้นละ 3,000 บาท รวมถึงงานแต่ง งานบวช งานศพ (L54/43)	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
11. Other Managemment												
ค่าใช้จ่ายในการจัดทำ บารุงรักษา ปรับปรุงนิทรรศการ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
ค่าชดเชยความเสียหายที่เกิดจากการปฏิบัติงาน	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
ค่าวัสดุสิ้นเปลือง	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
ค่าใช้จ่ายอื่น ๆ เช่น ค่าถ่ายเอกสาร เข้าเล่ม และค่าใช้จ่ายต่างๆ	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆

★Project Highlight

☆Routine Activities

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## เอกสารแนบที่ 11

เอกสารการจัดกิจกรรมโครงการฯ  
ภายใต้แผนความรับผิดชอบต่อสังคม (CSR)

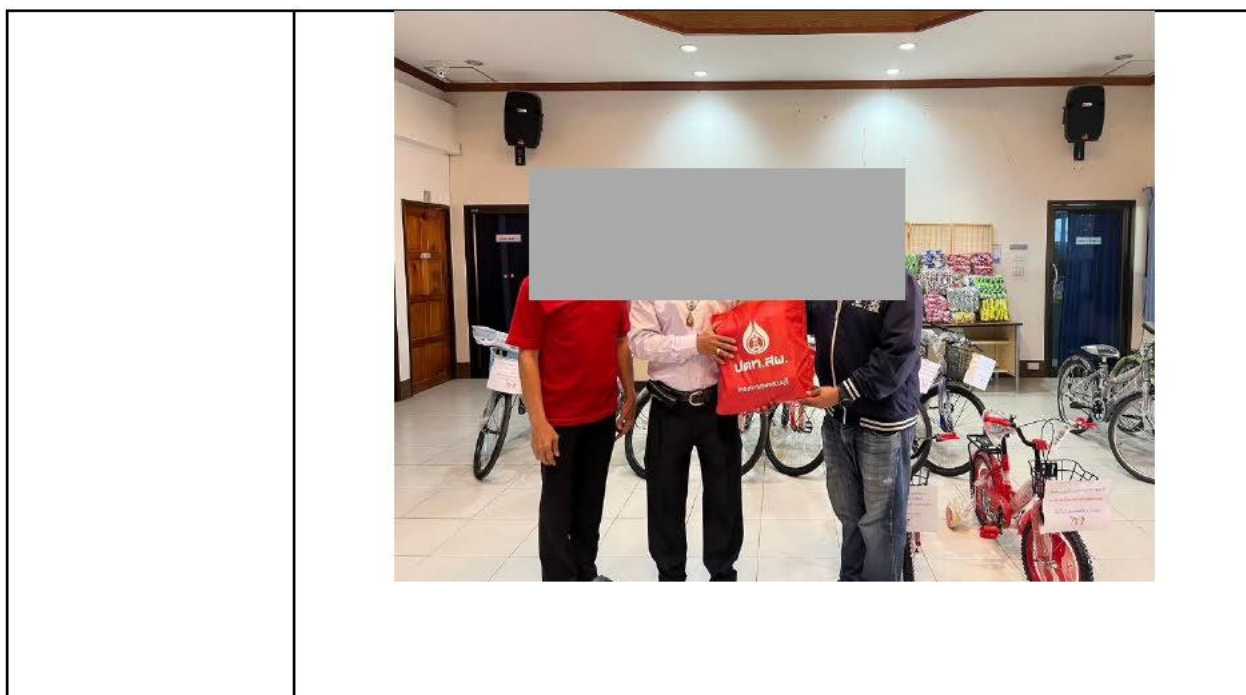
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Social Development Projects			
Asset:	Suphanburi		
Theme:	2. Education		
Activity:	ปตท.สผ.โครงการสุพรรณบุรี นำโดย แผนกองค์กรสัมพันธ์ ร่วมสนับสนุนกิจกรรมวันเด็กแห่งชาติ ประจำปี 2567 จำนวน ████████ บาท ให้กับ องค์การบริหารส่วนตำบลในพื้นที่ปฏิบัติงานจังหวัดสุพรรณบุรีและจังหวัดนครปฐม		
Owner:	PSP/S & PTN/A team		
Location:	องค์การบริหารส่วนตำบลในพื้นที่ปฏิบัติงาน จังหวัดสุพรรณบุรีและจังหวัดนครปฐม	Date:	12 มกราคม 2567
Stakeholder Group:	1. Government agencies, Regulators 7. Communities		
Stakeholder:	Name / Position		Attitude
			Before After
	1.แผนกองค์กรสัมพันธ์ ปตท.สผ.โครงการสุพรรณบุรี		Positive Positive
	2.องค์การบริหารส่วนตำบลในพื้นที่ปฏิบัติงานจังหวัดสุพรรณบุรีและจังหวัดนครปฐม		Positive Positive
No. of Participation	No. of Stakeholder: 5 No. of PTTEP staff as volunteer (if any): 5		
No. of Beneficiaries	██████		
Actual Expense:	USD 0.00 or THB : ████████		
Activity Detail:	ปตท.สผ.โครงการสุพรรณบุรี นำโดย แผนกองค์กรสัมพันธ์ ร่วมสนับสนุนกิจกรรมวันเด็กแห่งชาติ ประจำปี 2567 จำนวน 5,000 บาท ให้กับ องค์การบริหารส่วนตำบลสวนแตง องค์การบริหารส่วนตำบลศาลาขาว องค์การบริหารส่วนตำบลทุ่งลูกนก องค์การบริหารส่วนตำบลมะขามล้ม องค์การบริหารส่วนตำบลวัดโบสถ์ โดยได้รับเกียรติจากนายกให้กับ องค์การบริหารส่วนตำบลและเจ้าหน้าที่เป็นผู้รับมอบในครั้งนี้		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) Report	


Photo:





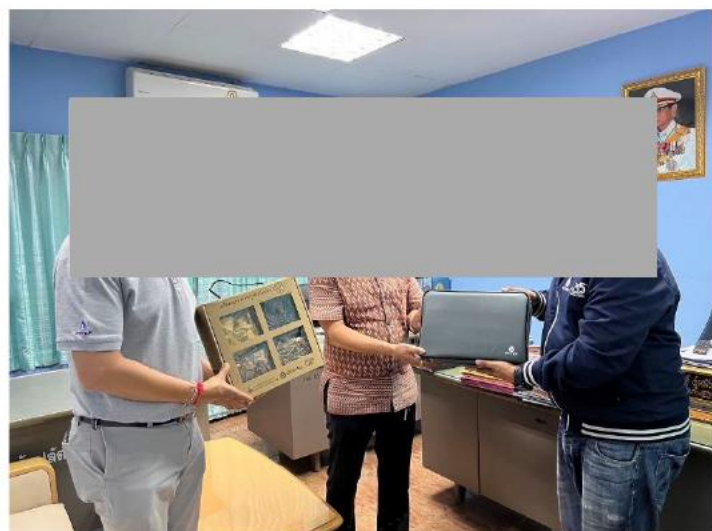


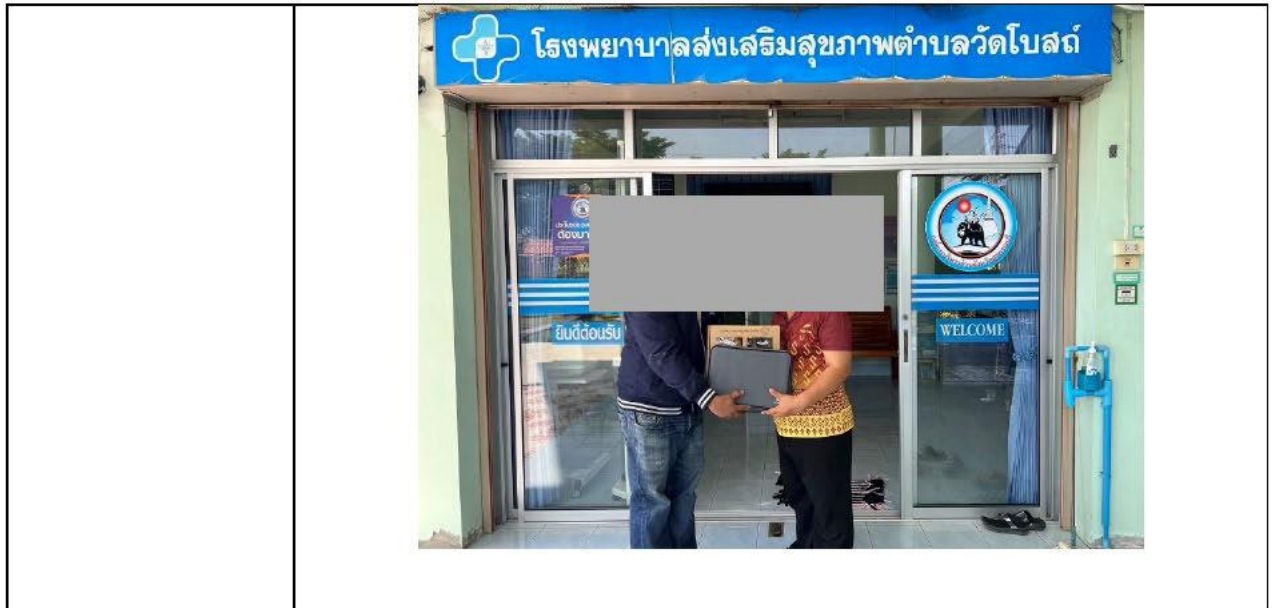
Social Development Projects			
Asset:	Suphanburi		
Theme:	Choose an item.		
Activity:	ปตท.สผ.โครงการสุพรรณบุรี ได้เข้ามาอบกระเช้าสวัสดิ์ปีใหม่เนื่องในโอกาสวันขึ้นปีใหม่ 2567 ผู้ว่าราชการจังหวัดสุพรรณบุรี และผู้ว่าราชการจังหวัดนครปฐม หน่วยงานราชการระดับสูง ส่วนราชการ และผู้นำท้องถิ่นในพื้นที่ปฏิบัติงาน		
Owner:	PTN & PSP & PTN/A team		
Location:	จังหวัดสุพรรณบุรี , จังหวัดนครปฐม	Date:	17-18 มกราคม 2567
Stakeholder Group:	1. Government agencies, Regulators 7. Communities		
Stakeholder:	Name / Position		Attitude
			Before After
	1. นายณัฐภัทร สุวรรณประทีป ผู้ว่าราชการจังหวัดสุพรรณบุรี		Positive Positive
	2. นายสุรศักดิ์ เจริญศิริโชติ ผู้ว่าราชการจังหวัดนครปฐม		Positive Positive
	3. หน่วยงานราชการระดับสูง ส่วนราชการ และผู้นำท้องถิ่น ท้องถิ่น ชุมชน		Positive Positive

	4. นายอนันต์ อมรประภาวัฒน์ ผู้ช่วยกรรมการผู้จัดการใหญ่ โครงการผลิตบมฝั - ประเทศไทย	Positive	Positive
	5. นายคมสัน เลิศวิริยะประภา ผู้จัดการอาวุโสฝ่ายปฏิบัติการ ผลิตโครงการสินภู่ออมและสุพรรณบุรี	Positive	Positive
	6. นายชาญยุทธ์ นันทสุทธิวารี หัวหน้างานปฏิบัติการโครงการ สุพรรณบุรี	Positive	Positive
	7. แผนกองค์กรสัมพันธ์ ปตท.สผ.โครงการสุพรรณบุรี	Positive	Positive
No. of Participation	No. of Stakeholder: 50		
	No. of PTTEP staff as volunteer (if any): 7		
No. of Beneficiaries	50		
Actual Expense:	USD 0.00 or THB 0.00		
Activity Detail:	ปตท.สผ.โครงการสุพรรณบุรี นำโดย นายอนันต์ อมรประภาวัฒน์ ผู้ช่วยกรรมการ ผู้จัดการใหญ่ โครงการผลิตบมฝั - ประเทศไทย นายคมสัน เลิศวิริยะประภา ผู้จัดการอาวุโสฝ่ายปฏิบัติการผลิตโครงการสินภู่ออมและสุพรรณบุรี นายชาญยุทธ์ นันทสุทธิวารี หัวหน้างานปฏิบัติการโครงการสุพรรณบุรี และ แผนกองค์กรสัมพันธ์ ได้เข้ามอบกระเช้าสวัสดิ์ปีใหม่เนื่องในโอกาสวันขึ้นปีใหม่ 2567 ให้กับ นายณัฐภัทร สุวรรณประทีป ผู้ว่าราชการจังหวัดสุพรรณบุรี นายสุรศักดิ์ เจริญศิริโชติ ผู้ว่าราชการ จังหวัดนครปฐม รองผู้ว่าราชการจังหวัดสุพรรณบุรี และจังหวัดนครปฐม พลังงาน จังหวัดสุพรรณบุรีและจังหวัดนครปฐม ประชาสัมพันธ์จังหวัด สำนักงานจังหวัด และผู้อำนวยการโรงพยาบาลส่งเสริมสุขภาพตำบล องค์การ บริหารส่วนตำบล และผู้นำชุมชน ในพื้นที่ปฏิบัติงาน		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) Report	
Photo:			





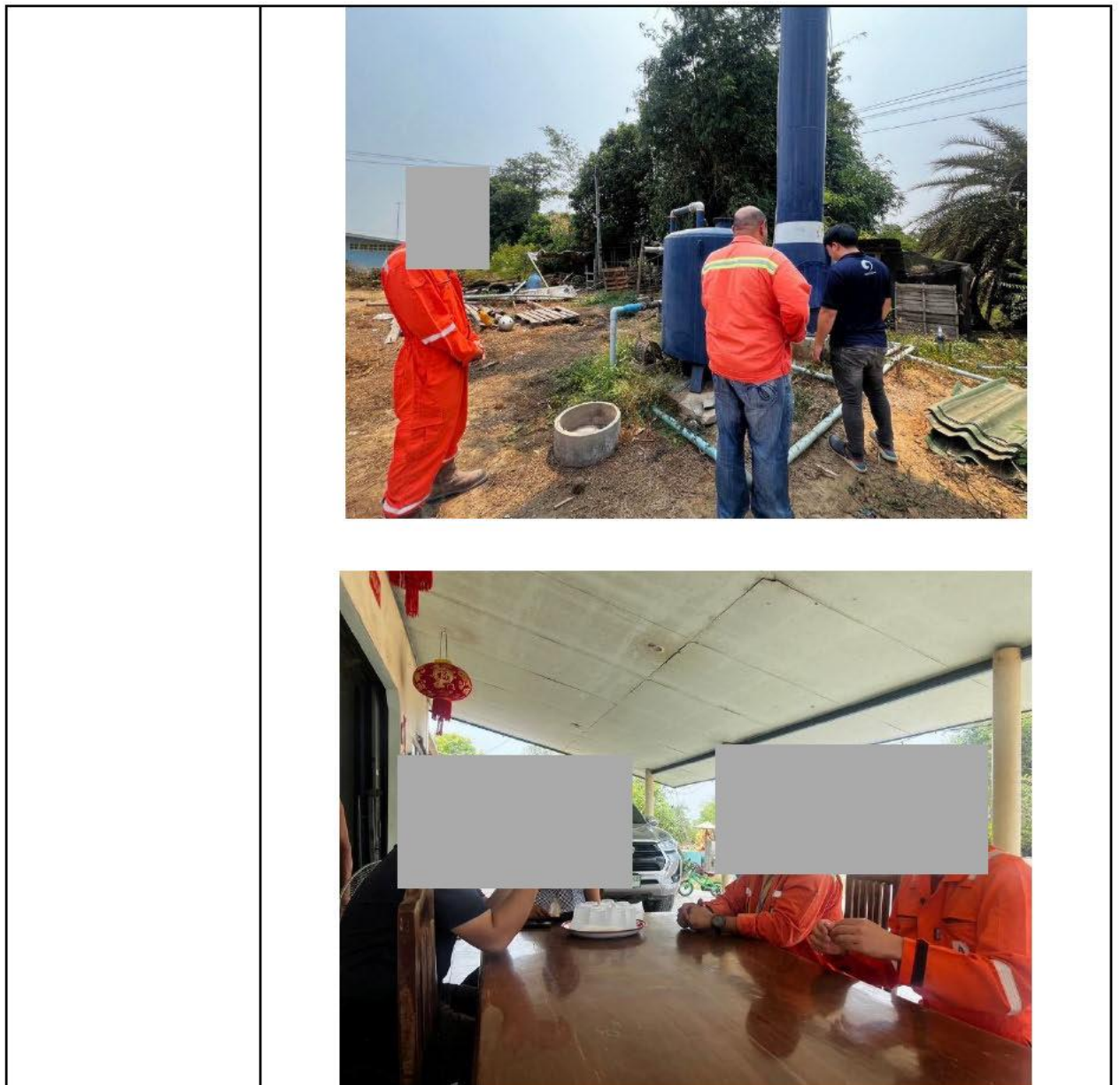




Social Development Projects			
Asset:	Suphanburi		
Theme:	3. Environment		
Activity:	ปตท.สผ.โครงการสุพรรณบุรี นำโดย แผนกองค์กรสัมพันธ์ จัดโครงการรักแหล่งน้ำ ปตท.สผ. สนับสนุน ซ่อมแซมท่อประปาหมู่บ้าน ให้แก่ หมู่ที่ 4 ตำบลทุ่งลูกนก จำนวน 10,000 บาท		
Owner:	PTN/A Team		
Location:	หมู่ที่ 4 ตำบลทุ่งลูกนก	Date:	02 พฤษภาคม 2567
Stakeholder Group:	1. Government agencies, Regulators 7. Communities		
Stakeholder:	Name / Position		Attitude
			Before After
	1. แผนกองค์กรสัมพันธ์ ปตท.สผ.โครงการสุพรรณบุรี		Positive Positive
	2. แผนก OPR และ Maid		Positive Positive
	3. ผู้ใหญ่บ้าน หมู่ที่ 4 ตำบลทุ่งลูกนก		Positive Positive
No. of Participation	No. of Stakeholder: 1		
	No. of PTTEP staff as volunteer (if any): 6		
No. of Beneficiaries	300		
Actual Expense:	USD 0.00 or THB [REDACTED]		
Activity Detail:	ปตท.สผ.โครงการสุพรรณบุรี นำโดย แผนกองค์กรสัมพันธ์ จัดโครงการรักแหล่งน้ำ ปตท.สผ. สนับสนุน ซ่อมแซมท่อประปาหมู่บ้าน ให้แก่ หมู่ที่ 4 ตำบลทุ่งลูกนก จำนวน [REDACTED] โดยมีผู้ใหญ่บ้านเข้าร่วมรับมอบในครั้งนี้		




Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) Report
Photo:	 	



Social Development Projects			
Asset:	Suphanburi		
Theme:	Choose an item.		
Activity:	ปตท.สำรวจและผลิตปิโตรเลียม จำกัด (มหาชน) โครงการสุพรรณบุรี นำโดย นายชยพล เสงฤทธิ์ เจ้าหน้าที่ปฏิบัติการผลิต มอบสนับสนุนงบประมาณ [redacted] บาท เพื่อช่วยเหลือในการซ่อมแซมถนนรูกังทางเข้าแหล่งผลิตน้ำมันดิบ กำแพงแสน		
Owner:	PTN/A Team		
Location:	แหล่งผลิตน้ำมันดิบกำแพงแสน	Date:	12 กันยายน 2567
Stakeholder Group:	1. Government agencies, Regulators		



	7. Communities		
Stakeholder:	Name / Position	Attitude	
		Before	After
	1. นายชยพล เสลาฤทธิ์ เจ้าหน้าที่ปฏิบัติการผลิต	Positive	Positive
	2. ผู้ใหญ่บ้านหมู่ที่ 4 ตำบลทุ่งลูกนก	Positive	Positive
No. of Participation	No. of Stakeholder: 1		
	No. of PTTEP staff as volunteer (if any): 1		
No. of Beneficiaries	300		
Actual Expense:	USD 0.00 or THB ██████████		
Activity Detail:	<p>ปตท.สำรวจและผลิตปิโตรเลียม จำกัด (มหาชน) โครงการสุพรรณบุรี นำโดย นายชยพล เสลาฤทธิ์ เจ้าหน้าที่ปฏิบัติการผลิต มอบสนับสนุนงบประมาณ : ██████████ บาท เพื่อช่วยเหลือในการซ่อมแซมถนนรูกวังทางเข้าแหล่งผลิตน้ำมันดิบ กำแพงแสน โดยผู้ใหญ่บ้านหมู่ที่ 4 ตำบลทุ่งลูกนก รับมอบในครั้งนี้</p>		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) Report	
Photo:			



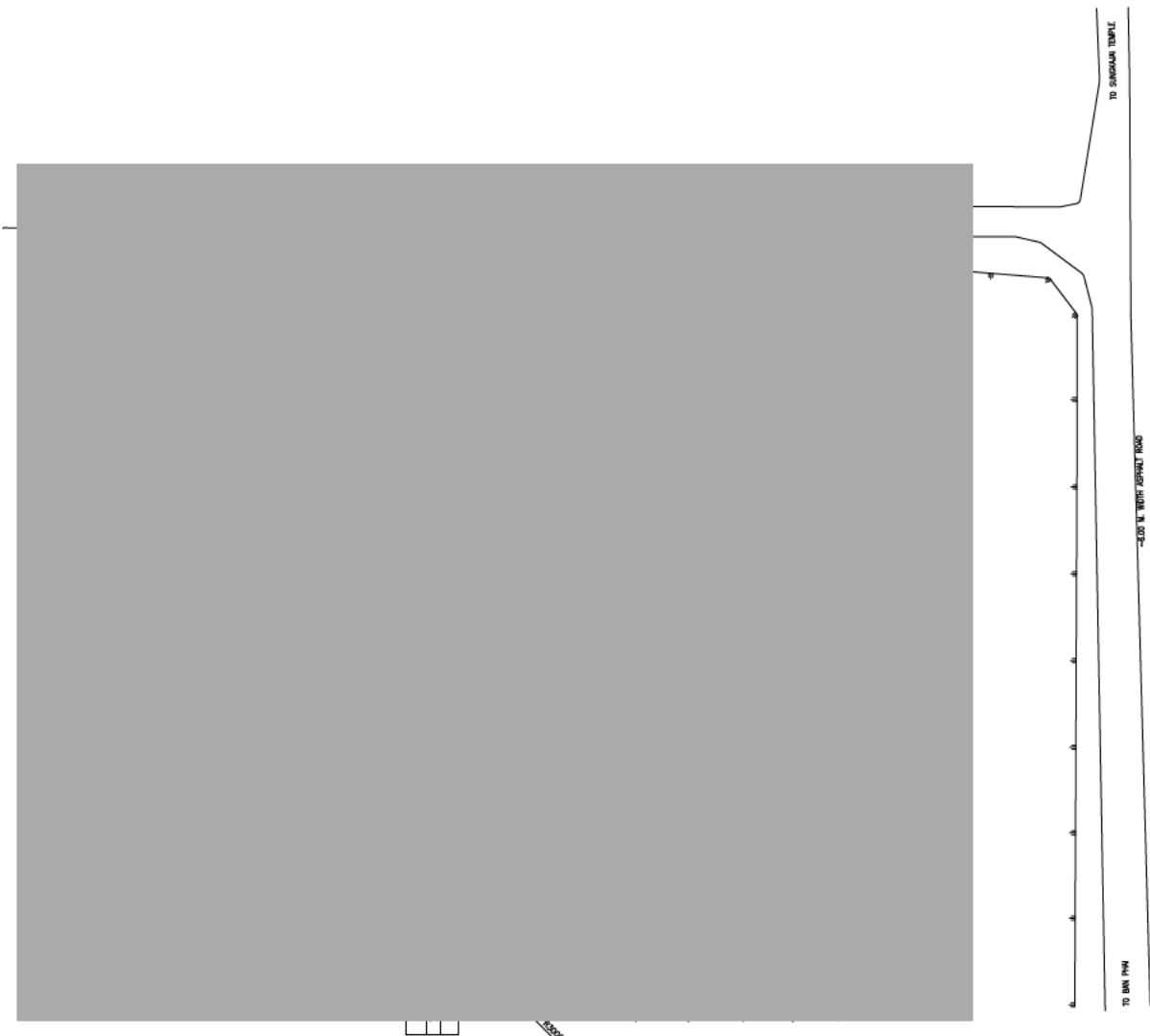
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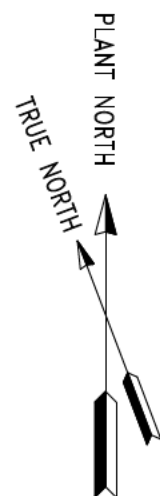
## เอกสารแนบที่ 12

Hazardous Area Classification

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ROAD

USED SAND AND GRAVEL BORROW PIT

## GENERAL NOTES

### LEGENDS



ZONE 0



ZONE 1



 ZONE 2



NON-HAZARDOUS / UNCLASSIFIED

[illegible][illegible]

PTTEP International Ltd.

KAMPHAENG SAEN , SUPHANBURI

DRAWING  
TITLE

HAZARDOUS-ARFA CLASSIFICATION

VENDOR DRAWING No.		SCALE 1:500		DWG. SIZE A1		R.Y. 1/8/62	
DRAWN XXX		DATE XXX		ENTER CONTRACT No.		THIS DRAWING No.	
CHECKED XXX		XXX					
APPROVED						KS1-1-4-04-001	

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## เอกสารแนบที่ 13

เอกสารการตรวจประเมินด้านความปลอดภัยฯ

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## SSHE Site inspection form

Location kg Month July 2024

### 1. Emergency preparedness

No.	Description	Yes	No	N/A	Remark
1	Radio communication (Conditions and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Mobile phone (Conditions and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Emergency light (Conditions and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Emergency searchlight (Conditions and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	Smoke detector (Function test)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	First aid kit (Quantity, Expire date and content)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	Emergency eye washer (Containment condition, Change water every 1 month)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	Fire Fighting System (Fire extinguisher, Foam mixture, Foam drums, Fire hose, Nozzle, Piping, Fire water pump)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	Emergency siren (Condition and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	Spinal board (Condition and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	Gas detector (Condition and readiness)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Safety harness are in good condition and readiness e.g. - Lanyard - D-ring and snap hooks - Back, Chest, Leg, Shoulder straps - Any other point	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	Emergency spill kit (Condition, Quantity and readiness)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	The gangways are free from obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 2. Process safety

No.	Description	Yes	No	N/A	Remark
1	Drawings (Onsite and up to date)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Area classification (Onsite and up to date)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Work log book (Up to date to recording)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 2. Process safety (Cont.)

No.	Description	Yes	No	N/A	Remark
4	Safety Data Sheet (Posted at containment)	/			
5	Pipe, Valve, Wellhead, Storage tank (No rust)	/			
6	Flexible hose and pipe (Conditions and connections)	/			
7	Electrical equipment properly secured	/			
8	No any leakage from process equipment (Pipe, Valve, Wellhead, Storage tank, Connection)	/			
9	All support are properly	/			
10	Storage tank bund area (Clean and no any leak)	/			
11	No oil and any leak to well cellar and oil interceptor	/			
12	All moving part of machinery adequately guarded	/			
13	Lock out / Tag out are implemented and log book recording	/			
14	Lock close / Lock open are implemented	/			
15	Pipe insulation (Weatherproofing)	/			
16	All SCE has been tag identified	/			

## 3. Waste management

No.	Description	Yes	No	N/A	Remark
1	Waste containment condition (No rust and no leak)	/			
2	Waste labels are correctly	/			
3	Waste segregation are correctly	/			

## 4. Security system

No.	Description	Yes	No	N/A	Remark
1	Security hand over sheet (Up to date to recording)	/			
2	Road pits (Conditions)	/			
3	Security fences (Conditions and color)	/			
4	General light are adequate	/			

## 2. Notice boards

No.	Description	Yes	No	N/A	Remark
1	Company name and asset name	/			
2	PTTEP SSHE Policy	/			



### 3. Notice boards (Cont.)

No.	Description	Yes	No	N/A	Remark
3	SSHE Statistic (LTI, HPI, LOPC, Man-hours and Days)	✓			
4	Recent SSHE Alerts	✓			
5	MoM of SSHE Meeting	✓			

Note: 1. การบันทึก บันทึก (Helper)

Inspected by: \_\_\_\_\_

Position: Tech, 4488 Date: \_\_\_\_\_

Position: OPR Date: 29/1/24

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## เอกสารแนบที่ 14

เอกสารใบรับแจ้งให้

บริษัท มั่นคง บี.อาร์.เค. กรุ๊ป จำกัด

เป็นผู้ขนส่งน้ำมันเชื้อเพลิง

จากกรมการขนส่งทางบกและกรมธุรกิจพลังงาน

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ใบรับแจ้งเลขที่ พอ ๓๘/๐๓/๒๕๕๕



แบบ นพ.๑๑๐

## กรมทรัพยากรพลังงาน

ใบรับแจ้งเป็นผู้ขนส่งน้ำมันเชื้อเพลิง  
ตามมาตรา ๑๒

ใบรับแจ้งนี้ออกให้เพื่อแสดงว่า  
บริษัท มั่นคง บี.อาร์.เค.กรุ๊ป จำกัด



ได้แจ้งเป็นผู้ขนส่งน้ำมันเชื้อเพลิง ตามมาตรา ๑๒

แห่งพระราชบัญญัติการก้ำน้ำมันเชื้อเพลิง พ.ศ. ๒๕๔๓

เมื่อวันที่ ๑๘ เดือน เมษายน พ.ศ. ๒๕๕๕

ออกให้ ณ วันที่ ๑๗ เดือน พฤษภาคม พ.ศ. ๒๕๕๕

(นายสมศักดิ์ ชื่นพงษ์)

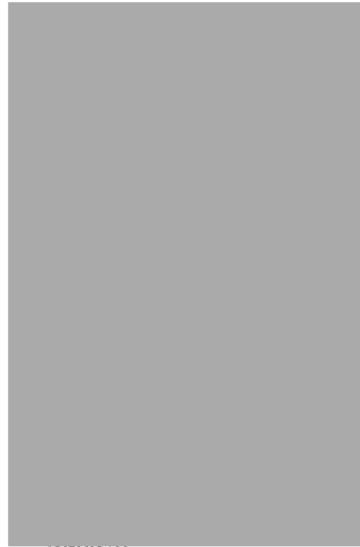
ผู้อำนวยการบริหารแผน  
ผู้ว่าการตรวจตราพิเศษ



บันทึก วันที่ 18 เมษายน พ.ศ. 2549 ได้รับแจ้งจากบริษัทฯ เป็นผู้ขนส่งน้ำมันเชื้อเพลิง โดยมี ยานพาหนะ ดังนี้ จำนวน 28 คัน

พิษณุโลก

ทะเบียนเลขที่



70-0074

บันทึก วันที่ 14 มิถุนายน 2549 ได้รับแจ้งจากบริษัทฯ ขอเพิ่มรถยนต์ จำนวน 16 คัน ดังนี้

พิษณุโลก

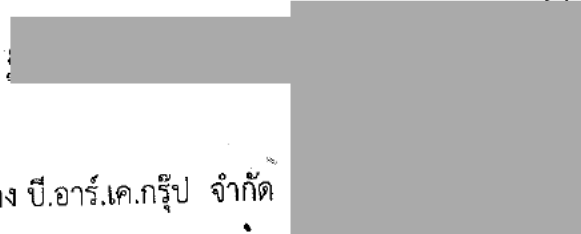
ทะเบียนเลขที่



บันทึก วันที่ 19 มิถุนายน 2549 ได้รับแจ้งจากบริษัทฯ ขอเพิ่มรถยนต์ จำนวน 3 คัน ดังนี้

พิษณุโลก

ทะเบียนเลขที่



บันทึก วันที่ ๒๗ มีนาคม ๒๕๕๖ ได้รับแจ้งจากบริษัท มั่นคง ปิ.อาร์.เค.กรุ๊ป จำกัด ขอเพิ่มรถยนต์ จำนวน ๕ คัน

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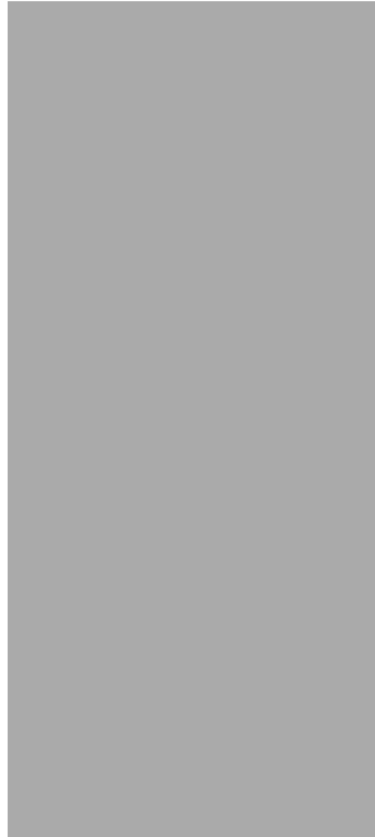
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พนักงานจังหวัดพิษณุโลก

ใบประจำต่อ  
ทะเบียนเลขที่ พล ๗๘/๗/๒๕๔๙  
บริษัท มั่นคง พี.อาร์.เค.กรุ๊ป จำกัด

บันทึก วันที่ ๒๐ พฤษภาคม ๒๕๕๘ ได้รับแจ้งจากบริษัทฯ ขอเพิ่มยานพาหนะ จำนวน ๒๘ คัน

พิษณุโลก

ทะเบียนเลขที่



รวมเป็น ๑๑๑ คัน

และลดยานพาหนะ จำนวน ๒ คัน

พิษณุโลก

ทะเบียนเลขที่



จึงเหลือ ๑๐๙ คัน

(นายตามเฉลิมพ จันทนาคร)

พนักงานจังหวัดพิษณุโลก

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พนักงานจังหวัดพิษณุโลก



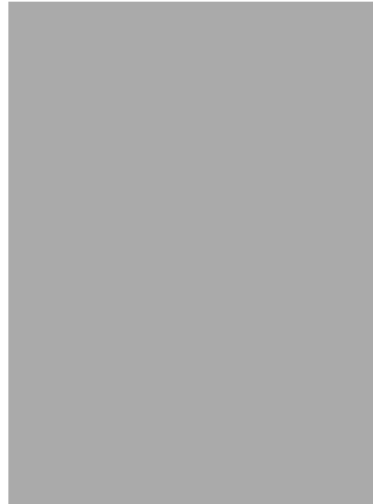


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คงเหลือ ๖๐ คัน

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พลังงานจังหวัดพิษณุโลก

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(นายธนัทโชค แก้วกันยา)  
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รวม

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ปลัดจังหวัดพิษณุโลก



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## เอกสารแนบที่ 15

Suphanburi Emergency Response Plan

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**PTTEP**

PTT Exploration and Production Public Company Limited

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## **SUPHANBURI EMERGENCY RESPONSE PLAN**

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**Document Code: 13250-PDR-SSHE-501/08-R03**

**November 2021**

**Approval Register**

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**Review and Approve**

	<b>Name</b>	<b>Signature</b>	<b>Date</b>
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	SVP, Thai Onshore Asset		

THIS DOCUMENT WILL BE REVIEWED EVERY 5 YEARS FROM DATE OF APPROVAL OR  
REVISED EARLIER IF NECESSARY.

## TABLE OF CONTENTS

<b>1. PURPOSE.....</b>	<b>1</b>
<b>2. SCOPE.....</b>	<b>1</b>
<b>3. EMERGENCY MANAGEMENT.....</b>	<b>2</b>
3.1 EMERGENCY CLASSIFICATION .....	2
3.2 FIRE AND EMERGENCY RESPONSE .....	3
3.3 EMERGENCY NOTIFICATIONS AND COMMUNICATION .....	11
3.4 ROLES AND RESPONSIBILITIES .....	13
3.5 MEDICAL EVACUATION DEFINITION .....	16
3.6 PREVENTING PLAN .....	17
3.7 MONITORING PLAN .....	20
3.8 FIRE EVACUATION PLAN .....	21
3.9 EMERGENCY CAMPAIGN.....	23
3.10 TRAINING & EXERCISES PLAN .....	23
ROLES AND RESPONSIBILITIES.....	24
DEFINITION AND ACRONYMS.....	24
REFERENCES .....	27
REVISION HISTORY .....	28

## INTRODUCTION

### 1. PURPOSE

The purpose of this plan is to establish procedures to deal with any emergency event that may occur during Suphanburi Asset oil production operations.

- To define the overall emergency organization with roles & responsibilities.
- To define the actions to be taken by the Suphanburi Asset's Emergency Response Team (ERT).
- To define the actions to be taken by Suphanburi Asset Support Team to support the ERT.
- To define interface between Suphanburi Asset's teams and PTTEP Corporate.

Objectives of the Emergency Response in the following order of priority:

- Protection of People
- Protection of Environment
- Protection of Property
- Protection of the Business and Reputation

### 2. SCOPE

The scope of this EMP is to cover the roles, responsibilities and process that the EMT will follow when responding to an actual or potential incident. Suphanburi Asset that may become of significant concern to the company business.

This plan covers all operations and activities Suphanburi Asset including incidents of (but not limited to) the following nature:

- Suphanburi Asset Operational Incidents
- Environmental incidents
- Security Incidents
- Logistics Incidents
- Health Incidents
- Suphanburi Asset Personnel Incidents
- Drilling Locations (where Suphanburi Asset team provides support to Drilling)



## REQUIREMENTS

### 3. EMERGENCY MANAGEMENT

#### 3.1 EMERGENCY CLASSIFICATION

During Emergency case will effects of different depend on the severity of the emergency, Potential of equipment, Emergency management, knowledge and skill by impact level Refer to 11038-STD-SSHE-501-R05: Emergency and Crisis Management Standard.

Impact Rating	Project Cost + Schedule	Legal / Compliance	Property Damage **	Financial	People*	Environment***	Image/Reputation	Rare (A)	Unlikely (B)	Possible (C)	Likely (D)	Almost Certain (E)
								Event occurrence is remote and/or never heard of in the EP industry	Event has occurred a few times in the EP industry or is unlikely to occur in PTTEP	Event has occurred several times in the EP industry or occurred once in PTTEP or may occur in PTTEP	Event has occurred several times per year in the EP industry or more than once per year in PTTEP or occurred in the same location or is likely to occur in PTTEP	Event has occurred frequently in the EP industry or occurred more than once per year at the same location or is expected to occur in PTTEP
<b>Critical (5)</b>	Impact on cost or schedule > 10%	Shutdown of Board + Management Revocation of any licenses or permits Imprisonment > 12 months Fines/Compensation: Thailand > 1.6M THB; Foreign laws > 1M USD	Loss > \$50M	> 10% of NPV/EMV	Multiple fatalities	Spill > 100K bbl Tier 3 International assistance, major financial consequences, persistent severe environmental damage	International media coverage Formal complaint from international authority	Note 1	Note 1			
<b>Serious (4)</b>	Impact on cost or schedule 5-10%	Suspension of stock trading Suspension of licenses or permits Imprisonment 6-12 months Fines/Compensation: Thailand 1M-5M THB; Foreign laws 200K-5M USD	Loss between \$5-50M	> 10% of NPV/EMV	Multiple LWOC One permanent disability One fatality	Spill > 10K bbl Tier 2 Regional assistance, severe environmental damage, take extensive measures to resolve	National media coverage Local community protest with national influence					
<b>Significant (3)</b>	Impact on cost or schedule 2.5-5%	Imprisonment 2-6 months Fines/Compensation: Thailand < 500K THB; Foreign laws 30K-200K USD	Loss between \$100K-5M	0.1-1% of NPV/EMV	Single LWOC Multiple RWOC	Spill < 1,000 bbl Tier 1 Localised effect, limited effect, repeat breaches of statutory	Regional media coverage Online media spread Local community protest with provincial/state influence					
<b>Moderate (2)</b>	Impact on cost or schedule 1.25-2.5%	Fines/Compensation: Thailand < 100K THB; Foreign laws < 5K USD	Loss between \$10K-100K	0.01-0.1% of NPV/EMV	MFC Single RWOC	Spill < 1 bbl No lasting effect, single breach of statutory	Local media interest Influenced online media post Local community aggregation					
<b>Minor (1)</b>	Impact on cost or schedule < 1.25%	No penalty Breach but can be resolved without any actual enforcement	Loss < \$10K	< 0.01% of NPV/EMV	Minor injury with first aid	Spill < 1 bbl Single effect within legal, negligible financial consequences	No news coverage Non-influenced online media post Local community complaint				Note 2	Note 2

\*, \*\*, \*\*\* Refer to qualitative explanation on next page.

(1) If residual risk is in A, 1 or A, 2 have to focus on reducing consequences.

(2) If residual risk is in E, 4 or E, 5 focus on reducing frequency of occurrence

Consequences Line 5, are Major Accident Events (MAE's).

Consequences Line 4 and 5 are High Potential Incidents (HPI's) for purposes of incident reporting and investigations.

Figure 1 - PTTEP Risk Assessment Matrix

#### Tier 1.

- Involves a serious problem which has limited impact and minimal potential for escalating, poses a serious threat to safety and the environment, poses no threat to the general public
- Can be handled by Emergency Response Team (ERT) within a reasonable time frame

#### Tier 2.

- Involves an emergency with greater magnitude and major severity in nature or has the potential to escalate and continue for a significant period of time and raise concern among public.
- May involve damage to PTTEP Facilities/ Assets/Project and/ or impact to third parties and may pose a significant threat to safety, the environment and its Facilities/ Assets/Project

- May request an external assistant from local authorities in the impact area, i.e. Oil Industry Environment Safety Group Association of Thailand (IESG), Royal Thai Navy (RTN) for Thailand operations, local fire brigade or the nearby oil and gas operating asset, and etc.
- Results in activation of Emergency Management Team (EMT)

### **Tier 3.**

- Involves a catastrophic scenario resulted in the multiple injuries, fatalities, major fires, environmental damage, toxic gas release, significant business interruption and poses a significant threat to the environment or damage to PTTEP Assets and finally bring in significant media attention
- Requests an external assistant from abroad or international resources i.e., the Oil Spill Response Limited (OSRL), etc.
- Activates Crisis Response Team (CRT) and assigns CRT Leader to prepare/review a CRP and monitor situations for Crisis Management Team (CMT)'s decision.
- Results in activation of the Corporate CMT and Asset CMT if it occurs in an International Asset.

## **3.2 FIRE AND EMERGENCY RESPONSE**

**The risks for small fires to develop into major destructive fires are:**

- **Fires occurring from Process area**
  - Fires occurring during loading operations
  - Fires occurring gas fire
  - Fires occurring in the well-head area
  - Fires resulting from leaks near the heaters/pumps
  - Fires occurring from Chemicals leak.
- **Fires occurring from the tank bund area**
  - Fires resulting from leaks and spills inside the tank bund area
  - Fires on the tank vents.
- **Fires occurring from warehouse, workshop, office.**
  - Fires occurring the warehouse
  - Fires occurring in maintenance workshop.
  - Fires occurring the office.
  - Fires occurring from Electrical.
  - Fires occurring in chemical storage & Hazardous waste storage.
- **Fire occurring during crude transportation External**
  - Fires occurring during transportation operations.

- **Fire occurring during transportation Internal**
  - Fires on the loading arm
  - Hit by vehicle
- **Pre fire plan reference to [PRE FIRE PLAN](#)**
- **Other:**
  - Search and Rescue.
  - Generated Waste Handling.
  - Site Re-entry
  - Emergency Contact Number reference to Support Documents : Contact Number [PSR/E, Contractor](#) , [Suphanburi asset emergency flow chart](#)
  - Site layout reference to : [Drawing and site layout](#)

**Guide-lines for dealing with the above categories of fire as below**

**3.2.1 FIRES OCCURRING FROM PROCESS AREA**

**a. Fires occurring during loading operations**

- Fires in the tank

Fires in the tank should be extinguished by pouring in foam mix through the loading hatch.

It is possible that if a fire is started at the start of loading when the tank is empty, it could be accompanied by a soft explosion, which may lead to an injury to the operator on the tank top. The first priority is to ensure the safety of the operator. If the fire is still alight when the Brigade arrives they should use foam mix into the tank to extinguish the fire, or let it burn out. Water should not be allowed to enter the tank.

- Fires as a result of spills

If practicable and provided there is no risk of personnel injury the tanker should be driven out of the spill. The spill fire should be extinguished with foam extinguisher, mobile fire pump and fire pump with foam mixer (or a small one with Dry Powder). If the extinguishers do not extinguish the fire it may be allowed to burn out, while ensuring that adjacent equipment does not become involved, if possible.

The ERT and Fire Brigade should concentrate on ensuring that adjacent equipment does not become involved by the use of foam initially to extinguish the fire, and subsequently water to cool nearby equipment taking care that the water run-off does not escalate the spill and fire.

**b. Fires occurring gas fire**

If Gas leaks during operation (leaks from pipeline, flange leaks, separators or other) gas detector will sound an alarm. The operator must be isolate equipment gas leakage systems from other devices. To minimize the impact on other devices and reduce the severity of GAS LEAKS. Then Check equipment that was damaged and inform by the Follow the Emergency & Crisis Response and Management Standard.

If isolate equipment gas leakage systems from other devices completed but Unable to stop gas leakage. Operator must to press ESD and inform by the Follow the Emergency & Crisis Response and Management Standard.

Fires occurring gas fire Operator must to press ESC and. Consider ability to fire fighting. And fight fire if cannot fight fire Operator must inform by the Follow the Emergency & Crisis Response and Management Standard.

**c. Fires occurring in the wellhead area**

Flange fires occurring on the well-head or flowlines will immediately be reduced when the ESD is activated or the well is manually isolated and can be tackled with the available extinguishers.

Housekeeping in this area is particularly important because accumulated oil in the cellar or generally in the well-bay, if ignited, could cause a major loss because of damage to the well-head or beam pump. If a fire should occur as a result of a spill, it should be tackled with foam extinguisher or/and mobile fire pump, fire pump and fire truck with foam mixer as effectively as possible. The Brigade should be asked to deploy foam mix over the spill.

**d. Fires resulting from leaks near the heaters/pumps**

The ESD will immediately reduce the size of the fire and operators should then deal with the fire using foam, dry powder extinguisher or fire pump any spill should be dealt with as in 2 above

**e. Fires occurring from Chemicals leak.**

Refer to [12146-PDR-SSHE-501/03-R02: Spill Management Plan](#) and [13250-PDR-SSHE-501/03-R02: CHEMICAL SPILL PLAN FOR PRODUCTION SITE.](#)

**3.2.2 FIRES OCCURRING FROM THE TANK BUND AREA**

**a. Fires resulting from leaks and spills inside the tank bund area**

If housekeeping is good the potential for this type of spill is small. Operators should attempt to extinguish pressure fed fires by first shutting down the operation which should immediately reduce the flame size and then attack the fire with Dry Powder extinguisher. For pool fires in the bund, foam extinguishers, mobile fire pump, fire truck and fire pump with foam mixer should be used.

If the operator is unable to extinguish the fire, the Site Emergency Response Team (ERT) and Local Brigade will attend in 30-40 minutes after being called. The operator should brief the Suphanburi Asset Fire chief or Senior Officer on arrival and advise him on how to deal with the situation.

If a tank is breached and there is a major fire, the ERT and Fire Brigade may not be able to extinguish it with the resources available. The ERT and Fire Brigade should therefore concentrate on the use of sprayed water or fog to keep adjacent plant cool, until the fire subsides as a result of lack of fuel.

If the fire is prolonged and the bund contains burning crude oil, care is needed to ensure that the bund does not get filled with fire water. If water spray is being used to keep tanks cool, the bund should be drained, if practicable, to maintain as little water in the bund as possible. However, care is needed to

ensure that the draining do not contain oil which can escalate the size of the fire by transferring it to a pit.

If the adjacent tanks are low level, there is a danger they could catastrophically rupture if overheated in a fire. This danger must be pointed out to the ERT and Fire Brigade to ensure the firemen are not put into positions of undue risk, particularly if cooling effectiveness is low.

If there is a water level below the oil in any tank, and there is a major bund fire this is the most hazardous situation because of the risk of boil-over when the water reaches boiling point. Water levels should always be minimized in normal operations, but if this situation occurs then firemen should be aware of the danger that a sudden and potentially massive escalation could occur.

If there is any doubt about the ability of the ERT and Fire Brigade to deploy sufficient resources to deal with a tank fire, then the tanks should be allowed to burn out.

#### **b. Fires on the tank vents**

Tank vent fires may be common during electric storms. The size of the fire will be reduced soon after the ESD has been activated but attempts to extinguish the flame should be made with a 'snuffer' device, e.g. a cone on a pole, which can be put over the vent thus extinguishing the flame. If unsuccessful, the vent fire can be allowed to burn itself out.

### **3.2.3 FIRES OCCURRING FROM WORKSHOP, WEARHOUSE AND OFFICE.**

#### **a. Fires occurring in maintenance workshop.**

Storage, equipment, classification of chemicals and planning to do a good job this reduces Accidents from fire, can control the situation and the fire properly will Reduced damage

If a fire caused by OXYGEN used in activities such as welding, cutting steel. It should be tackled by Dry Powder extinguisher. Do not let the water clearance by liquid Oxygen It will make a serious blow. Stop leak if you can do it. OXYGEN Store in an area with adequate ventilation, away from flammable materials such as oil, grease, asphalt, Hydrocarbon, alcohol, acetone, ether and aldehyde at least 20 feet.

If a fire caused by ACETYLENE used in activities such as welding, cutting steel. It should be tackled by Dry Powder extinguisher, Carbon dioxide, Water spray, cooling container at fires, Store ACETYLENE in a well-ventilated, distance from the source of heat and ignition should matter in a cool and dry.

If a fire caused by API-MODIFIED It should be tackled by Dry Powder extinguisher, Carbon dioxide, water and don't store API- MODIFIED in an area with a high temperature. If a fire caused by Dynamic Ultra Plus: SAE 15W-40 It should be tackled by Dry Powder extinguisher, Foam extinguisher and spray water used to maintain the temperature of the container. Store Dynamic Ultra Plus: SAE 15W-40 in a well-ventilated don't store in a place near to the flame.



If a fire caused by THINNER it should be tackled by Foam extinguisher and Dry Powder extinguisher, Store THINNER in a well-ventilated don't store in a place near to the flame. it in a cool, dry place.

If a fire caused by Philips Degreaser Cleaner Spray It should be tackled by Dry Powder extinguisher, Carbon dioxide and spray water. Store Philips Degreaser Cleaner Spray in a well-ventilated don't store in a place near to the flame.

If a fire caused by GREASE It should be tackled by Foam extinguisher and Dry Powder extinguisher, Sand or sawdust to extinguisher. Store GREASE With lid

If a fire caused by CONTACT CLEANER It should be tackled by Foam extinguisher and Dry Powder extinguisher, Carbon dioxide, water, Store CONTACT CLEANER in a well-ventilated don't store in a place near to the flame

If a fire caused by Organic Mixture WD-40 It should be tackled by dry chemical, carbon dioxide or foam; use water fog, don't use water jet or flooding amounts of water. Burning product will float on the surface and spread fire. Store Organic Mixture WD-40 in a cool, well-ventilated area, away from incompatible materials Do not store in direct sunlight.

If a fire caused by CO CONTACT CLEANER (AEROSOL) It should be tackled by Dry Powder extinguisher, Carbon dioxide and Foam extinguisher. Store Organic Mixture CO CONTACT CLEANER (AEROSOL) in a well-ventilated don't store in a place near to the flame and food store.

In case of large fires or unable to control the situation. Refer to Emergency & Crisis Response and Management Structure

#### **b. Fires occurring in warehouse**

If a fire caused by equipment it should be tackled by Dry Powder extinguisher preliminary.

In case of fire, the warehouse can't be controlled will be use pull handle fuse Out of electricity Main for shutting electric current

#### **c. Fires occurring the office.**

If a fire caused by Electronics equipment or documents, it should be tackled by Carbon dioxide preliminary.

In case of fire, the container can't be controlled. Will be cut off the power at the Control room.

In case of Control room was on fire Will be use pull handle fuse Out of electricity Main for shutting electric current.

#### **d. Fires occurring from Electrical.**

Electricity is one of the most common sources of ignition to create a fire. There are two primary electrical conditions that start fires, overloaded and short circuits.

- Overloaded Circuits

Overloaded circuits (wires) result from connecting larger or more loads than the circuit is sized for. A dangerous situation is created and overloaded wires will occur if circuit breakers or fuses with a larger rating are substituted for those properly sized originally. This substitution allows wires and devices to slowly build up heat inside the electrical equipment. The build-up of heat eventually causes the flammable material to burst into flame.

- Short Circuits

A short circuit causes a high energy spark and occurs when poor or damaged insulation touches another circuit, wire or grounded metal surface. Working on live electrical equipment and having a screwdriver touch the metal box is a good example of a short circuit. A defective or worn switch or wire is an example of where a short circuit can start a fire when no one is present.

If the fire is confined to electrical equipment, shutting the power off and using CO<sub>2</sub> to put the fire. But if other materials are involved, then an alternative extinguishing agent may be necessary after the power is switched off.

Since most electrical equipment is located in enclosed spaces, the use of fireman's equipment and breathing apparatus must always be considered when responding fires.

#### **e. Fires occurring in chemical storage & Hazardous waste storage.**

The incompatibility of chemicals may be posing a fire if not correctly stored / classification, it allows extinguisher rapidly and cause reduction damage, reduction loss.

If a fire caused by PHASETREAT It should be tackled by Foam extinguisher Dry Powder extinguisher, Carbon dioxide and water spray. Store PHASETREAT in a well-ventilated

If a fire caused by Corrosion inhibitor (EC1304A) It should be tackled by Foam extinguisher, Dry Powder extinguisher, Carbon dioxide and If a large fire occurs, use a water spray to lower the temperature of the container

If a fire caused by CHEMets Ampoules for Filming Amines CHEMets Kit&Refill (R-1001 and for Detegents CHEMets Kit&Refill (R-9401) It should be tackled by Dry Powder extinguisher, Carbon dioxide and water spray

If a fire caused by Double-Tipped Ampoules It should be tackled by Foam extinguisher, Dry Powder extinguisher, Carbon dioxide and water spray. Store Double-Tipped Ampoules in a well-ventilated

If a fire caused by Methanol It should be tackled by Foam extinguisher, Dry Powder extinguisher, Carbon dioxide and use water spray to cool the container. Store Methanol in a well-ventilated don't store in a place near to the flame.

If a fire caused by OR-10 It should be tackled by Dry Powder extinguisher. Store OR-10 in a well-ventilated, keep in a sealed container, dry and cool place.

If a fire caused by OILER-1 It should be tackled by Dry Powder extinguisher. Store OILER-1 in a well-ventilated

If a fire caused by Hazardous Waste such as Oil-soaked rags, Gloves contaminated with oil, Paint cans, etc. It should be tackled by Dry Powder extinguisher, Water spray and Foam extinguisher.

### **3.2.4 FIRE OCCURRING DURING CRUDE TRANSPORTATION EXTERNAL**

#### **a. Fires occurring during transportation operations**

Fires occurring to the tanker during transportation to Bang-chak Refinery are the responsibility of the Fire Brigades along the route. Suphanburi asset must ensure that the Transportation Contractor and Suphanburi asset emergency plans cover the liaison needed to control these emergencies. The Brigades should use foam mix to deal with all hydrocarbon fires.

In the event of a road tanker emergency Suphanburi assets will be advised by the contractor as soon as possible. Suphanburi Asset representative immediately will be sent to the scene of the emergency to

- assess the situation
- coordinate support with the Suphanburi assets Emergency Response Team in the office and the contractor
- liaison with the local authority.

The contractor has a set of transportation emergency procedures which define his immediate action and emergency procedure at Emergency Control Centre

### **3.2.5 FIRE OCCURRING DURING TRANSPORTATION INTERNAL**

#### **a. Fires on the loading arm**

Fires on the loading arm and pipe work will be extinguished when the ESD is activated.

#### **b. Hit by vehicle**

Comply with 11017-PDR-LOG-4301-R00 Land Transport Management Procedure for Vehicle users. If an accident must follow Emergency & Crisis Response and Management Structure

### **3.2.6 OTHER**

#### **a. Search and Rescue**

After all personnel evacuated to the muster point, The Team Leader or Production Operator must check for missing personnel from Visitor Record and Contractor Entry Permit logs to ensure there is no personnel missing in the site. Upon discovery of missing personnel, follow as guideline:

1. Inform VP, Suphanburi assets (PSR/F)
2. Request assistance if necessary.
3. At least two persons in a team for search and rescue with radio and mobile first aid kit.
4. One site staff standby at the muster point with radio and keep on communication to search and rescue team to ensure search and rescue team still safe.
5. Never search after dark unless searching by the professional team
6. Notify people who standbys at the muster point for help or ambulance if required when the missing personnel are discovered.

**b. Generated Waste Handling.**

Waste from Emergency situation or response shall be managed regarding to SSHE-106-PDR-521 Waste Management Procedure and Waste Management plan Suphanburi asset.

**c. Site Re-entry**

In case of the site condition has been in unsafe condition to operate; for example, the plant is caught on fire and all personnel are evacuated off the site. Until the site has been declared by the VP, Suphanburi assets (PSR/F) after thoroughly investigated inspected that the site is safe to enter and operate, no one will enter the site for any reason except being justified and permitted by the VP, Suphanburi assets (PSR/F) to enter the site.

**d. Recover Plan**

In case of can be controlled or Tier 1, which the incident affect the people, environment and social practice in short term as follows.

- People: Victim helping and injury person helping program.
- Environment (cover: air, water, soil, waste): Decontamination and Monitoring.
- Community: investigate of damage, Preliminary support and compensatory damages,

OSC inform to ERT, Support team in ERT by each team is responsible for the following.

**Recover Team during emergency:**

Responsibility	Executor
Coordinate with government	Mutual Aid Coordinators
Damage Surveying	Operation Supervisor / Site Duty Roster Maintenance / Isolation Team
Helping and searching victim and dead people.	Intervention Team / Fire Fighting Team
Victim or injury person transportation and estate transportation of dead people.	Medical Team

Damage estimation and reporting of fire situation	Operation Supervisor / Site Duty Roster/ Maintenance
Immediate correction of fire situation to safe company and able to run company operation.	Maintenance / Isolation Team
Help for Emergency Relief and Includes the monitoring Assistance to Fire Victims.	Suphanburi asset / CSR
Waste Management, all of which occur in the event of an emergency.	Support Team

In case of long term, cannot be controlled or Tier 2,3 Emergency events Affect Environmental and Social such as Multiple LWDC or one more Permanent Disability or 1 Fatality, Loss between \$5M-\$50M, Spill >10,000 bbl. or Regional assistance etc. Activate Crisis Management Team (CMT) by EVP will report the CEO and consider activating

### 3.3 EMERGENCY NOTIFICATIONS AND COMMUNICATION

The communication channels

During an emergency, communications in Suphanburi asset shall be by following methods.

- Radio communication
- Telephone
- Mobile Phone
- E-mail
- Online application

#### 3.3.1 TIER1.

Can be handled by onsite Emergency Response Team (ERT) within a reasonable time frame

**Observer** informs OPR on-duty.

- Site / Asset.
- Area in site.
- What events?
- Controlled / uncontrolled.
- The name and condition of the injured and need your help Direction wind.
- Used Extinguishing equipment?

**OPR on-duty** informs Supervisor.

- Site / Asset
- Area in site



- What events?
- Controlled / uncontrolled
- The name and condition of the injured and need your help Direction wind
- Preliminary damage

**In case of can be response or Tier 1 Supervisor** Informs 2 way as

**Frist way: Supervisor.** Informs ERT team

- Mutual Aid
- Event logger
- Fire Fighting Team.
- Logistic / Transport Team.
- Medical Team.
- Maintenance / Isolation Team.
- Mass communication.
- Supporting Team.

**Second way: Supervisor.**

- Site / Asset
  - Area in site
  - What events?
  - Worth of damage covers People, Environment, Property and the Business and Reputation
  - VP or Person authorized acknowledged and command to incident investigation
- Diagram the emergency respond plan In case of can be response or Tier 1 reference to [Suphanburi asset emergency flow chart](#)

### 3.3.2 TIER2,3

Involves a catastrophic scenario resulted in the multiple injuries, fatalities, major fires, environmental damage, toxic gas release, significant business interruption and poses a significant threat to the environment or damage to PTTEP Assets and finally bring in significant media attention

The emergency situation may not be significant initially and may expand to require the additional resources.

The structure also establishes, coordination and communication from Asset and finally to the Corporate Head Office Level.

In case of can't be response or Tier 2, 3 [Refer to 5.1 Emergency /crisis notification and team activation](#)

**Supervisor** Informs VP or Person authorized for acknowledge for evaluation situation and command

- Site / Asset
- Area in site
- What events?
- Controlled / uncontrolled
- Who Injured? If there, inform describe injuries, number of Injured.
- The reporter numbers
- Number of equipment (Water, Foam extinguisher, Fire hose, Fire Truck etc.), for support firefighting
- Number of External Intervention Team
- Worth of damage covers People, Environment, Property and the Business and Reputation

**VP Informs SVP-PTN**

- Site / Asset
- Area in site
- What events?
- Worth of damage covers People, Environment, Property and the Business and Reputation
- Who Injured? If there, inform describe injuries, number of Injured.
- Number of External Intervention Team
- Request Activate Crisis Management Team (CMT) for Prepare support.

**SVP** Informs Crisis Management Team (CMT) shall be Activate Crisis Management Team  
Refer to 11038-STD-SSHE-501-R05: Emergency and Crisis Management Standard.

**3.4 ROLES AND RESPONSIBILITIES****3.4.1 ASSET VP OR AUTHORIZED PERSON AT SITE/FIELD**

Asset VP or authorized person at site/field are responsible for acting as a Leader of Onsite Emergency Response Team (ERT), so called Incident Commander (IC) whenever emergency occurs of their respective divisions (PSR/F) / Asset. Is the Emergency Controller has full delegated financial authority, calls in staff as required

**3.4.2 OPERATION SUPERVISOR / SITE DUTY ROSTER**

Operation Supervisor is assigned by the Asset VP to be in charge of the response to the emergency/crisis at the site or so called On Scene Commander (OSC). He will lead the on-site Emergency Response Team(s), coordinate with all support teams at the site, communicate the emergency/crisis situation and coordinate with the IC for additional supports as required.

- Site Duty Roster is the site incident controller when Operation Supervisor is absent.

- Site Duty Roster sees the safety board and Email.

#### **3.4.3 EVENT LOGGER / OSC ASSISTANCE**

- Record all events accurately and clearly including incident type, location, date and times.
- Ensure that all events are accurately recorded in the logbook / whiteboard as they occur.
- Liaise with the radio operator to ensure that all information is recorded.
- Keep the Duty Team informed of any significant events or changes in the status of the emergency.
- Inform the OSC of significant events or changes in the status of the emergency

#### **3.4.4 MUTUAL AID COORDINATORS**

- To provide advice to OSC on all Emergency Response aspects.
- Assist OSC on control activities at the scene.
- Provide messengers as required by Incident Commander / On scene Commander.
- Provide guides for outside agencies arriving at the plant.
- Assist with traffic control at the main gate and approach roads, as requested by security.
- Advise on using all firefighting equipment.
- Takes care of the injured until medical support arrives.
- Coordinate with Mutual Aid Teams.
- Inform local fire brigade to support for fighting of fire.

#### **3.4.5 INTERVENTION TEAM / FIRE FIGHTING TEAM**

Intervention Team Leader is assigned by the OSC to be in charge of the response to the emergency/crisis at the site. He will lead the on-site Emergency Response Team(s), coordinate with all support teams at the site, communicate the emergency/crisis situation and coordinate with the OSC for additional supports as required, Implement tactical incident plan as directed response to the incident directly with OSC.

#### **3.4.6 LOGISTIC / TRANSPORT TEAM**

- Provide support on all logistics related.
- Co-ordinate all transport movements.
- Control person to pass in – out wellsite and prevent person who are not participate entrance to wellsite. Operate manual silent to inform all staff when fire occurred.
- Stand by at gate of wellsite and control traffic system in gate area and roadway which entrance to production area or fire location.
- Provide and organize vehicles and transportation.

- Arrange transport for personnel and equipment to go to the incident scene.
- Provide transport assistance.
- Keep the incident area free of all non-emergency vehicles and personnel.
- Close the road, which related to the incident and take care of traffic.

#### **3.4.7 MAINTENANCE / ISOLATION TEAM**

- Provide personnel to the Emergency maintenance team in every field such as mechanical, electrical, civil, as requested by OSC.
- Online fire pumps and stands by to control fire pump engine.
- To coordinate and direct mechanical / I&E maintenance to support operations in event of emergency.

#### **3.4.8 MEDICAL TEAM**

- Evacuate injured personnel to safety area.
- Provide first aid as requested by the OSC.
- Perform first aid for victim or injury person and inform hospital to support

#### **3.4.9 CSR**

- Provide Emergency information for journalist, locals, etc.

#### **3.4.10 SUPPORTING TEAM**

- Inform local fire bridge to support for fighting of fire.
- Firefighting team.
- Clean up area when firefighting was completed.
- Pump used water in tank's bund for injection to water injection well.
- Takes care of the injured until medical support arrives
- Raise the alarm 5 minute inform all staff, contractor and visitor
- Provide food and drinks for Fire Extinguishing Personnel and Personnel at the Assembly point
- Stand by at gate of wellsite and control traffic system in gate area and roadway which entrance to production area or fire location.
- Control person to pass in – out wellsite and prevent person who are not participate entrance to wellsite.

## Responsibility

Team	Responsibility
Incident Commander	VP, Suphanburi asset
Operation Supervisor / Site Duty Roster (OSC)	Supervisor Operation / Site Duty Roster
Mutual Aid Coordinator Event logger/Fire command Assistance	SSHE Team
Intervention / Fire Fighting Team	Team 1, 2 and 3
Team 1	<ul style="list-style-type: none"> <li>Day Shift</li> </ul>
Team 2	<ul style="list-style-type: none"> <li>Night Shift + Day Off</li> </ul>
Team 3	<ul style="list-style-type: none"> <li>Night Shift + Day Off</li> </ul>
Maintenance / Isolation Team	Maintenance
Logistic / Transport Team	Driver and Supporting
Medical Team	Office / Maid / Gardener
Supporting Team	Helper well site & Other staff
CSR	CSR

### 3.5 MEDICAL EVACUATION DEFINITION

A MEDIVAC procedure is initiated when an employee's (either Suphanburi Asset staff or Contractor) medical, conditions require immediate evacuation to hospital, due to accident or serious illness.

**Procedure (Well Site);** If Site Staff (Production Operator) think that patient cannot be treated on site and should be sent urgently to hospital by site pick up or call out the nearest ambulance. Supervisor will make decision to evacuate the patient by site pick up or to call out the ambulance. In case of serious injury or illness, the patient must be evacuated to the hospital immediately then Supervisor report to (PSR/F) VP, Suphanburi Asset later. Relative of the patient (state in next of kin contact) will be contacted by Suphanburi Asset Assistance Admin Officer.



The patient normally sent to Air Force Hospital (Chantarubegsa) and Thonburi U-thong Hospital for Kampangsean and U-thong Location respectively. Decided by Supervisor and Assigned for Mutual Aid Coordinators contact the hospital in Bangkok for evacuation the patient to Bangkok due to the local hospital cannot treat the patient. And report to (PNJ) VP, Suphanburi Asset later.

### **MEDICAL EMERGENCY**

- Comply with 13250-PDR-MAIN-WIS-200-003-R01 Work at high If an accident must follow Emergency & Crisis Response and Management Standard.
- Confined space Comply with 12148-PDR-SSHE-505/42-R00 Permit to work Procedure if an accident must follow Emergency & Crisis Response and Management Standard.

Snake snatch. If remember snake style and call Operator on duty to inform what's happening and a took all poisonous snake serum in office go to the hospital.

### **3.6 PREVENTING PLAN**

Incident may be occurred by natural or people error, but fire case may be occurred every time if lacking of maintenance or inspection for firefighting equipment or system. So those fact are important may be fire occurred.

For life and all company estates have safety without fire that should be prepared preventing fire plan

#### **3.6.1 VP**

- When notified of an emergency tier 2 or 3, proceed to the EMR.

#### **3.6.2 SUPERVISOR OPERATIONS**

- When establishment or work system were installed and improved that should be concerned of fire
- Control production area, operation, tool and facility may be conducted of fire.
- Specification of working standard to safe from fire.
- Controlling and inspecting of activities to conducted ignition, heating and electrical static such as welding, cutting and heating who is approval person is supervisor or authorizer.
- Assignment for safety committee and safety officer to prepare preventing system and suspending fire plan such as training plan, inspection and improvement of work.
- Follow up and monitor other activities as involve preventing of fire.
- Prepare fire preventing plan as long term such as flammable material installation, emergency alarm system.

### **3.6.3 PROVIDE SSHE STANDARD AND CONTROL WORK SYSTEM OF CONTRACTOR FOR WORKING.**

#### **3.6.4 EMPLOYEE**

All employees must follow up safety rule.

- Do not ignition in restricted area or establishment area before approval from responsible person.
- No smoking in flammable material area or the location is not provided.
- Do not repair machine or equipment in flammable are before approval or Issued repair card by maintenance and safety officer
- In necessary case to use fire or ignition in flammable area must be worked under safety practice and monitored with close up by safety officer.
- To safe workplace and working practice with fire
  - Prevent fuel leakage or nearly leakage status may be occurred of high hazard that should be immediately improved by responsible person
  - Waste deposited or flammable waste management should be controlled by responsible person
  - Preventing electrical hazard, cable, fluorescent lamp, switch, machine with electrical system which was continuously monitored to prevent short circuit of electrical system. Preventing fire from welding operation
  - Repairing is to immediately action which found tool or facilities were damaged.
- Continuously monitor of pipe and valve leaking.
- Gas container and fuel container should be kept away from heat source minimum 7 meter.
- Do not forget off switch of welding machine after stopped uses.
- Welding operation must beware the scale of fire may be blown to flammable material area.

#### **3.6.1 PROFESSIONAL SAFETY**

- Inspection at high risk area for hazard of fire. Prepare details of preventing and Suspending fire plan and continuously provide training course of firefighting.
- Providing, maintenance and inspection of fire firefighting equipment is good Condition.
- Control contractor when they work in establishment for preventing fire.
- Issued permit to work about working of fire.

### **3.6.2 SECURITY GUARD**

- Control visitor who are pass in – out of wellsite.
- Be careful of casualty in wellsite area.
- When emergency fire was occurred that immediately inform to responsible person.
- Raise the alarm 5 minute inform all staff, contractor and visitor

### **3.6.3 PREVENTING SYSTEM AND SUSPENDING FIRE PLAN OF SUPHANBURI ASSET**

For life and all company estate have safety without fire. There are plans and control system as follow;

1. Provide preventing system and suspending system of fire such as providing of firefighting equipment , controlling of explosive materials or flammable materials, Disposal of flammable waste ,lightning protection , Installation of fire alarm system , creating a fire escape and building construction with fire protection system, etc.
2. Provide preventing and suspending plan of fire. Including with training, fire preventing promotion, firefighting, fire suspending, relief and recovery plan.
3. Provide route line to exit way as standard requirement.
4. For operation area or obstruction area should be provided route line to exit way as standard requirement.
5. Provide route line to exit way minimum 2 points to able moving out for all staff from working area within 5 minutes.
6. The fire exit is route line to safety area such as road, yard, etc.
7. The fire exit is to provide and visible seeing without obstruction.
8. The fire exit is to open – close as one or two way.
9. The fire exit is route line to outside without locking.
10. Separated material can be able ignition.
11. Provide mobile firefighting equipment and water supply.
12. Provide reserve water supply.
13. The hydrant or water supply pipe as standard requirement.
14. Fire hose is to provide enough supporting.
15. Water supply system, water reserved area and pumping should be checked and certified by civil engineer. Preventing damage system is to prepare for decreasing of fire
16. Provide mobile CO2, dry power or chemical foam are used for fire as type A, B, C and D.
17. Provide maintenance system and chemical for firefighting as standard requirement.
18. Provide checking and maintenance system for firefighting equipment and facilities minimum 1 time per month

19. Provide firefighting equipment at visible seeing and convenience using without obstruction.
20. Provide firefighting training course for staff.
21. Provide fire man or ERT to stand by all working time.
22. Provide PPE for firefighting emission enough such as uniform, shoe, sock , hat , mask , etc.
23. Prevent radiation, conduction or convection of heat from heat source to Flammable materials such as provides insulation material.
24. Separation flammable material and levy in safety area.
25. Prevention of leaking or vaporization of flammable material or explosive material are fact of ignition.
26. Provide no smoking sign in smoking area.
27. Provide earthing and grounding system at office building and process facilities.
28. Provide silent of fire alarm.
29. Monitor and test performance of fire alarm system minimum 1 time per month
30. Prepare emergency response team to prevent and response when emergency fire was occurred.
31. Provide emergency fire drill minimum 1 time per year

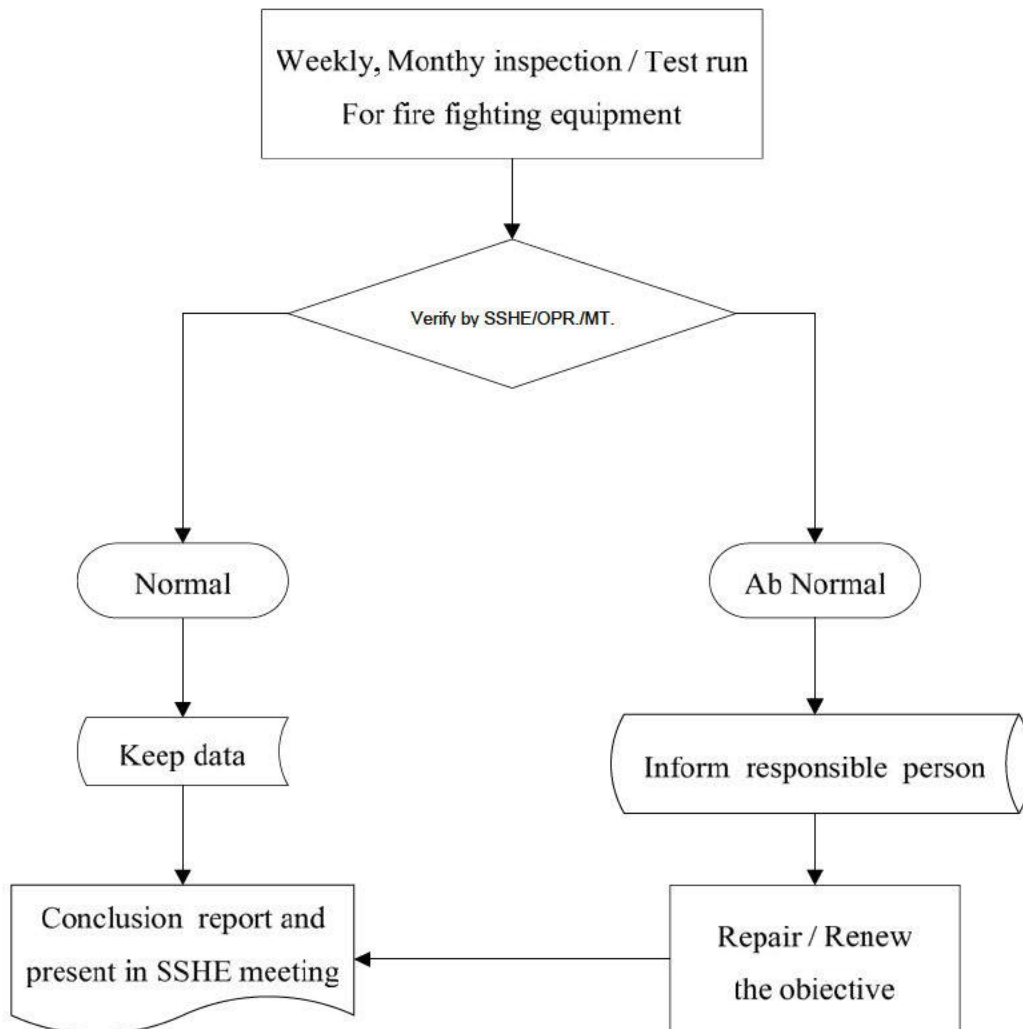
### **3.7 MONITORING PLAN**

Monitoring plans have objective to prevent fire with inspection for high risk area, firefighting equipment reviewing of emergency response plan for preventing fire emergency case.

#### **Preparation**

1. Assign person to continuously monitor and maintain firefighting equipment for good condition
2. Specification objective to monitor such as high risk area, tool or equipment to prevent Fire and firefighting equipment. There is inspection report or monitoring report to easy and convenience for reporting.
3. Specification monitoring and inspection and presentation for management.
4. Monitoring and inspection of firefighting equipment or facilities relation at all area to Confirm that preventing fire system is good condition minimum 1 time per month

## INSPECTION PLAN



**Figure 3 - INSPECTION PLAN**

### 3.8 FIRE EVACUATION PLAN

Fire Evacuation Plan is prepared to safe staff life and all company estate while fire occurring and conclude many factors such as evacuation leader, muster point, first aid team, vehicle,etc. and should be prepared as responsibility person under commanding of fire command.

Fire commander is Operation Supervisor

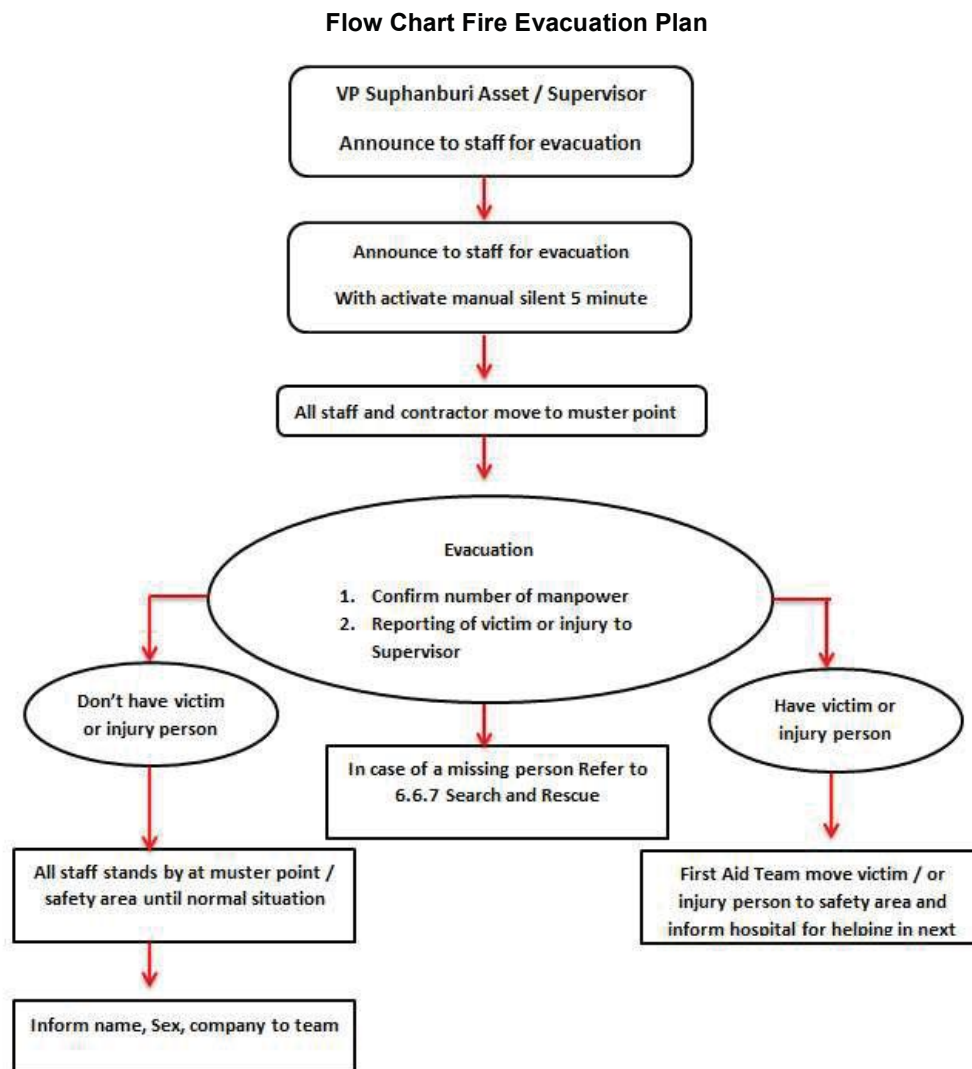
Fire commander assistance is Skilled Operator

For this plan will specific about

1. Manpower recorder is to check amount of staff and contractor.



2. Manual Alarm Siren activator (Security guard) is to activate manual Alarm Siren to inform all Manpower 5 Minutes, or until All employee turns out to Muster Point.
3. Muster Point is safety area or evacuation point to stand by, prepare supporting of fire Fighting.
1. First aid and vehicle is to help victim or injury person and contract hospital for supporting.
2. In the case of a missing person Refer to 6.6.7 Search and Rescue



**Figure 4 - Fire Evacuation Plan**

### **3.9 EMERGENCY CAMPAIGN**

Emergency campaign is prepared document from hazard report, lesson learn, Pre- fire plan and other objective would be improved and providing of project to support reorganization plan such as

1. Promotion of fire prevention
  - Fire elements
  - Flammable material storage
  - No smoking campaigns
  - Big Cleaning Day Campaigns
  - First aid training
  - SSHE awareness: Competition, Poster/board and Exhibition
  - Training
2. Victim helping and injury person helping program

Improvement firefighting system and firefighting facility

### **3.10 TRAINING & EXERCISES PLAN**

#### **3.10.1 TRAINING**

Training plan is prepared for prevent fire in establishment and required for staff to attend such as basic firefighting, advance firefighting and evacuation, etc.

Providing of training course follow 6.0 Training Programs and Training needs in 11038-STD-SSHE-305-R06 SSHE Training and Competency Standard

#### **3.10.2 EXERCISES**

1. Bimonthly Drill / Exercises
  - Fires occurring from Process area
  - Fires occurring from the tank bund area
  - Fires occurring from workshop, office.
  - Fire occurring during crude transportation External
  - Fire occurring during transportation Internal
  - Medical Emergency (Casualty Evacuation, Rescue with SCBA, etc.)
2. Annual Fire Drill Tier 1/2/3.

Records of drills, exercises, inspection and all documents etc. in Procedure follow as Control of 13250-SPD-SSHE-330-002-R02 Document Control Which will details: Storage Method, Storage, Retention Time and Responsible.

## ROLES AND RESPONSIBILITIES

### ROLES AND RESPONSIBILITIES

Roles	Responsibilities
OWNERSHIP OF THE DOCUMENT	<p>The owner of this document is VP, Suphanburi asset with responsibilities for:</p> <ul style="list-style-type: none"> <li>■ Issuing this document and its revisions</li> <li>■ Ensuring effective implementation of the document</li> </ul>
CUSTODIAN OF THE DOCUMENT	<p>The custodian of SUPHANBURI EMERGENCY RESPONSE PLAN is Supervisor, SSHE, with responsibilities for:</p> <ul style="list-style-type: none"> <li>■ Identifying deficiencies or potential improvements</li> <li>■ Initiating periodic revision</li> <li>■ Maintaining revision history and document status register</li> </ul>

## DEFINITION AND ACRONYMS

### DEFINITION AND ACRONYMS

Set out below are common specific terms presented in alphabetical order:

Terminology	Description
Normal Operation:	All activities of Suphanburi asset cover construction phase, drilling phase, well test phase, operation phase for example, Unloading crude and water for Re-processing, Preventive Maintenance, Overrides control, site inspection etc. which all activities are not an accident, incident, near miss or unusual events happen.
Abnormal operation:	All activities of abnormal events cover construction phase, drilling phase, well test phase, operation phase but can be evaluated and treated, can be prevented Emergency case for example; operator observe Leaks at flange area but Inform the maintenance department for Stop leak repair reduce the impact and prevent cause emergency situations and back to Normal Operation .
Emergency:	Is an occurrence or event, natural or human caused, that requires an emergency response under determination of affected Vice President (VP) to protect life, property and environment The external assistance may or may not be needed to supplement the company efforts and capabilities to save lives and to protect property

Terminology	Description
	<p>and public health and safety, or to lessen or avert the threat of a major or catastrophe in any part of the Suphanburi Asset premises. Emergency situations can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, fires, floods, oil and hazardous material spills, earthquakes, tropical storms, war-related disasters, outbreak of diseases and medical emergencies, and etc.</p> <p>In Suphanburi Asset emergency situations can be evaluated and treated and Can be handled by Emergency Response Team (ERT) within a reasonable time frame by using a tier 1 – 2 response level.</p>
Incident Commander (IC):	Affected Asset's authorized person, who has overall authority and responsibility for supporting and providing tactical activities and action plans to the On Scene Commander (OSC), including the development of strategic objectives. Incident Commander also sets priorities and defines organization of the EMT and the overall action plans for the particular response. He/she has to work closely with Asset EMT.
On Scene Commander (OSC):	An individual responsible for all onsite responses, especially providing direction and onsite tactical operations and always retains the authority to determine the appropriate course of response actions. Suphanburi asset shall be a Supervisor the top authorized person at that site and authority to activate the onsite Emergency Response Team (ERT)

In this document, the words may, should, and shall have the following meanings:

Terminology	Description
May	Indicates a possible course of action
Should	Indicates a preferred course of action
Shall	Indicates a course of action with a mandatory status

In this document, the organization terms have the following meanings:

Terminology	Description
Corporate	Refers to the PTTEP Business Groups hierarchically above Asset level, and located in the PTTEP headquarters, Bangkok.
Group	Refers to a corporate level Business Group. These may have associated Divisions, Departments, or operational Assets within their hierarchy.

Terminology	Description
Division	A Business Group may have one or more distinct groups within its hierarchy. These are referred to as Divisions, for example; within the POS Group, there is the International Asset Division (PIN) which also has associated Departments within their hierarchy.
Asset	Refers to an operational Asset, site, or location within a respective Business Group

Set out below are common specific terms presented in alphabetical order:

Acronyms	Description
CEO	President & Chief Executive Officer
CMT	Crisis Management Team
CRT	Crisis Response Team
EMP	Emergency Management Plan
ERT	Emergency Response Team
EMT	Emergency Management Team
ESD	Emergency shut down
EVP	Executive Vice President
IC	Incident Commander
IESG	Oil Industrial Environmental Safety Group Association (Thailand)
OPR	Operator
OSC	On Scene Commander
OSRL	Oil Spill Response Limited
PSR/F	Suphanburi Asset) PTTEP1, L53/43 and L54/43)
PTTEP	PTT Exploration and Production Public Company Limited
RTN	Royal Thai Navy
SSHE	Safety, Security, Health and Environment
SVP	Senior Vice President
VP	Vice President



## REFERENCES

### REFERENCES

Document Code	Document Title
<b>PTTEP SSHE Controlling Documents</b>	
11038-STD-SSHE-501-R05	Emergency and Crisis Management Standard
13250-GDL-PROD-100-001-R00	Suphanburi Asset Fire Fighting Philosophy Guideline
12146-PDR-SSHE-501/03-R02	Spill Management Plan
SSHE-106-PDR-521	Waste Management Procedure
13250-PDR-SSHE-501/03-R02	Chemical spill plan for production site
12148-PDR-SSHE-505/42-R00	Permit to Work procedure
13250-PDR-MAIN-WIS-200-003-R01	Work at high
-	Waste management plan
11017-PDR-LOG-4301-R00:	Land Transport Management
11038-STD-SSHE-305-R06	SSHE Training and Competency Standard
13250-STD-SSHE-SPD-330-002-R02	Document Control

## REVISION HISTORY

### REVISION HISTORY

Rev.	Description of Revision
0	<b>Authorized by: PSR/F, Date: July 2014</b> <ul style="list-style-type: none"><li>• New issue.</li></ul>
1	<b>Authorized by: PSR/F, Date: July 2016</b> <p>Changes from previous version are as follows:</p> <ul style="list-style-type: none"><li>• Change the title Suphanburi emergency responses plan</li><li>• Revised Sequence.</li><li>• Revised 4.0 Definition</li><li>• Revised 5.0 Emergency Management</li><li>• Revised Appendix</li></ul>
2	<b>Authorized by: PSR/F, Date: November 2021</b> <p>Changes from previous version are as follows:</p> <ul style="list-style-type: none"><li>• Revised formed every 5 years for Suphanburi emergency responses plan.</li></ul>

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## เอกสารแนบที่ 16

Suphanburi Asset Emergency Flow Chart

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# Suphanburi asset Emergency Flow Chart

การรายงานอุบัติเหตุเบื้องต้นในพื้นที่ของ ปตท.สผ .อินเตอร์เนชั่นแนล จำกัด โครงการสุพรรณบุรี

Approve By :

Position : Supervisor, Operations

Date : March 2024

Emergency event  
เกิดเหตุการณ์ฉุกเฉิน

Observer evaluation for response  
ผู้พบเห็นประเมินสถานการณ์

Can be response  
สามารถเข้าระงับเหตุได้

Not successfully  
ไม่สำเร็จ

Can't be response  
ไม่สามารถเข้าระงับเหตุได้

Notify to OPR on-duty via telephone or radio  
แจ้งเจ้าหน้าที่ฝ่ายผลิตผ่านโทรศัพท์หรือวิทยุ

Inform / แจ้ง

Notify to OPR on-duty via telephone or radio  
แจ้งเจ้าหน้าที่ฝ่ายผลิตผ่านโทรศัพท์หรือวิทยุ

Inform / แจ้ง

OPR on-duty inform to Supervisor or Duty Roster  
เจ้าหน้าที่ฝ่ายผลิตแจ้งหัวหน้างานฝ่ายผลิตหรือเจ้าหน้าที่รักษาการแทน

Inform / แจ้ง

OPR on-duty inform to Supervisor or Duty roster  
เจ้าหน้าที่ฝ่ายผลิตแจ้งหัวหน้างานฝ่ายผลิตหรือเจ้าหน้าที่รักษาการแทน

Inform / แจ้ง

Supervisor or Duty roster inform to VP or Person authorized for acknowledge  
หัวหน้างานฝ่ายผลิตหรือเจ้าหน้าที่รักษาการแทน แจ้งผู้จัดการอาวุโส สังกัดโครงการผลิตบนฝั่ง - ประเทศไทย หรือเจ้าหน้าที่ที่ได้รับมอบหมาย เพื่อรับทราบสถานการณ์

Inform / แจ้ง

Supervisor or Duty roster inform to VP or Person authorized for evaluation situation and command  
หัวหน้างานฝ่ายผลิตหรือเจ้าหน้าที่รักษาการแทน แจ้งผู้จัดการอาวุโส สังกัดโครงการผลิตบนฝั่ง - ประเทศไทย หรือเจ้าหน้าที่ที่ได้รับมอบหมาย เพื่อประเมินสถานการณ์และสั่งการ

VP or Person authorized acknowledged and command to incident investigation  
ผู้จัดการอาวุโส สังกัดโครงการผลิตบนฝั่ง - ประเทศไทย หรือเจ้าหน้าที่ที่ได้รับมอบหมาย รับทราบและสั่งการ

Command

Severity evaluation  
Tier 1, 2 or 3

Command

Tier 1

Tier 2, 3

On Scene Commander (OSC)  
บัญชาการเหตุการณ์ สั่งการทีมฉุกเฉิน

Mutual Aid  
(Coordinate external agencies)  
ติดต่อประสานงานหน่วยงานภายนอก (รถดับเพลิง, รถพยาบาล, ตำรวจ)

Event Logger  
(Event logging and reporting to OSC)  
บันทึกเหตุการณ์และรายงานสถานการณ์

Maintenance  
(Control the electrical and mechanical system)ควบคุมระบบไฟฟ้าและเครื่องจักร

Logistics  
(Facilitate transportation and third party control) อำนวยความสะดวกเกี่ยวกับการขนส่ง ควบคุมบุคคลเข้า-ออก

Intervention Team  
ทีมระงับเหตุ

T1

T3

T2

Support  
(Support and services)  
สนับสนุนอาหาร เครื่องดื่ม อุปกรณ์

Mass Communication  
(Stakeholder engagement)  
ติดต่อประสานงานกับผู้นำชุมชนในพื้นที่ และการให้ข้อมูลสถานการณ์

Medical  
(First aid to injury)  
ปฐมพยาบาลเบื้องต้นให้กับผู้ได้รับบาดเจ็บ

Information must notify/ข้อมูลการแจ้ง

1. Locale /สถานที่
2. The name and condition of the injured and need your help/ ชื่อและรายละเอียดการเจ็บป่วย ที่ต้องการความช่วยเหลือ
3. The emergency event detail /รายละเอียดเหตุการณ์
4. The persons are related detail/รายละเอียดบุคคลที่เกี่ยวข้อง
5. The reporter name and phone number/ชื่อผู้รายงานและหมายเลขโทรศัพท์

Phone number/เบอร์โทรศัพท์

1. Operator on-duty at UT1-7 /เจ้าหน้าที่ฝ่ายผลิต แหล่งอุทก 1-7 : 081-931-3804
2. Supervisor/หัวหน้างานฝ่ายผลิต : K [REDACTED]
3. Telephone government agencies as per attachment/เบอร์ติดต่อหน่วยงานราชการตามเอกสารแนบ

Rev.2, March 2024

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## เอกสารแนบที่ 17

เอกสารแสดงเบอร์ตติดต่อสถานพยาบาล  
และหน่วยงานที่เกี่ยวข้อง

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เบอร์โทรศัพท์ติดต่อหน่วยงานราชการ					
No.	ชื่อสำนักงาน	ตำแหน่ง/ฝ่าย	เบอร์ติดต่อสำนักงาน	รายชื่อ	เบอร์มือถือ
1	กฟภ.อำเภอ กำแพงแสน	เบอร์กลาง/ห้องเวรแก่ไฟ			
2	กฟภ.อำเภอกำแพงแสน	ห้องผู้จัดการ			
3	กฟภ.อำเภอกำแพงแสน	ห้องการเงินและบัญชี			
4	กฟภ.อำเภอกำแพงแสน	แผนกบริการ			
5	กฟภ.อำเภอกำแพงแสน	เบอร์แฟกซ์			
6	สถานีดับเพลิงกำแพงแสน	เบอร์กลาง		คุณ อำนวย	
7	กฟภ.อำเภออุททอง	แจ้งไฟฟ้าขัดข้อง			
8	กฟภ.อำเภออุททอง	ผู้จัดการ กฟภ.อ.อุททอง		คุณ สุระ บัวโต	
9	กฟภ.อำเภออุททอง	เบอร์กลาง/หัวหน้าแผนกบริการผู้ใช้ไฟ		คุณ สุรพล ผิดศิริ	
10	กฟภ.อำเภออุททอง	แผนกธุรการ(เบอร์กลาง)			
11	กฟภ.อำเภออุททอง	แผนกบัญชีและการเงิน(เบอร์กลาง)			
12	กฟภ.ตำบลสวนแตง	เบอร์กลาง			
13	กฟภ.ตำบลสวนแตง	หัวหน้า กฟภ.ต.สวนแตง		คุณ สาริณี แซ่ม้อย	
14	กฟภ.ตำบลสวนแตง	เบอร์แฟกซ์			
15	กฟภ.ตำบลมะขามล้ม	Hotline 1129		คุณ ประวิทย์(หน.ไฟฟ้า)	
16	กฟภ.อำเภอบางปลาม้า	เบอร์กลาง			
17	สถานีดับเพลิงสวนแตง	เบอร์กลาง		คุณ จินดา	
18	สถานีตำรวจภูธรเมืองสุพรรณบุรี	ผกก.สภ.เมืองสุพรรณบุรี		พตอ.ชัยรัตน์ ทัพยจันทร์	
19	สถานีตำรวจภูธรอุททอง	ผกก.สภ.อุททอง		พตอ.คำรณ บุญเลิศ	
20	สภ. สระแก้ว	เบอร์กลาง			
21	สภ. บางปลาม้า	เบอร์กลาง			
22	สถานีตำรวจภูธรบางปลาม้า	เบอร์กลาง			
23	สถานีตำรวจชุมชน อุททอง	เบอร์กลาง		คุณ วสันต์	
24	สถานีตำรวจชุมชน สังขยาเถร	คุณอภิชัย			
25	ศูนย์บริการประชาชน ต.บางกุ้ง	เบอร์กลาง			
26	ศูนย์บริการประชาชน ต.ดอนโพธิ์ทอง	คุณประเสริฐ รัตนจันทร์		คุณ ประดิษฐ์ กล้าหาญ	
27	ศูนย์บริการประชาชน ต.วังน้ำเย็น	คุณนิสสรณ์ สายนุช		คุณ ไพบุล ชุมทอง	
28	ผู้ใหญ่บ้านหมู่ 8 ต.ศาลาขาว			คุณ ปราณี บุญศรีวงศ์	
29	องค์การบริหารส่วน มะขามล้ม	คุณหนุ่ม			
30	องค์การบริหารส่วน ต.ทุ่งลูกนก	เบอร์กลาง		คุณ ณัฏชา	
31	เทศบาล ต.กำแพงแสน	หัวหน้า บัณฑิตและบรรเทาสาธารณภัย		คุณ อำนวย	
32	องค์การบริหารส่วน ต.กำแพงแสน	เบอร์กลาง			
33	เทศบาล ต.เจดีย์	สำนักปลัด คุณมอส (นายก)		คุณ วรชัย (ชะลอ)	
34	องค์การบริหารส่วน ต.สวนแตง	เบอร์กลาง		คุณ สุเมธ	
35	เทศบาลสวนแตง	คุณวสันต์		สำนักงาน	
36	เทศบาล ต.บางกุ้ง	ห้องป้องกันภัย		คุณ มอส	
37	เทศบาล ต.ท่าเสด็จ	สำนักงาน		035-597 444	
38	องค์การบริหารส่วน ต.ศาลาขาว	นายก อบต.ศาลาขาว		คุณ ไก่	
39	องค์การบริหารส่วน ต.วังน้ำเย็น	เบอร์กลาง			
40	องค์การบริหารส่วน ต.ดอนโพธิ์ทอง	เบอร์กลาง		คุณ ประสิทธิ์	
41	ศูนย์กู้ภัยนครแก้ว	เบอร์กลาง			
42	ศูนย์กู้ภัยร่วมใจสวนแตง	เบอร์กลาง			
43	กสท.สุพรรณบุรี			คุณ อรุณย์	
44	กสท.สุพรรณบุรี			คุณ สมศักดิ์	
45	กสท.สุพรรณบุรี			คุณ ถนอม	
46	พลังงานจังหวัดสุพรรณบุรี	เบอร์กลาง		คุณ ปรัชญา ขวัญเมือง	
47	หน้าห้องนายอำเภอเมืองสุพรรณบุรี			คุณ อำนาจ	
48	สำนักงานป้องกันและบรรเทาสาธารณภัยจ.สุพรรณบุรี				

เบอร์โทรศัพท์ติดต่อโรงพยาบาล			
No.	ชื่อโรงพยาบาล	รายชื่อ	เบอร์ติดต่อสำนักงาน
1	คลินิก กำแพงแสน	เบอร์กลาง	
2	รพ.จันทบุรีเบกษา	เบอร์กลาง	
3	รพ.ธนบุรีอุทอง	เบอร์กลาง	
		แจ้งอุบัติเหตุ กต 1	
		คุณ เสาวพา	
4	รพ.กำแพงแสน	เบอร์กลาง 1669	
		แจ้งอุบัติเหตุ กต 114	
5	รพ.บางปلام้า	เบอร์กลาง	
6	รพ.สต.สังฆายเถร	เบอร์กลาง	
7	รพ.สต.ดอนโพธิ์ทอง	เบอร์กลาง	
8	รพ.สต.วังน้ำเย็น	เบอร์กลาง	
		คุณ นรินทร์	
9	รพ.เจ้าพระยายมราช	เบอร์กลาง	
เบอร์โทรศัพท์ติดต่อพนักงานบริษัท SBP (Helper wellsite KS)			
No	รายชื่อ	เบอร์ติดต่อสำนักงาน	เบอร์ติดต่อ
1	คุณ ณรงค์ สังข์ทุ่งขวาง		
2	คุณ หัสดง บุญเทียน		
3	คุณ บุญยืน นักกีฬา		
เบอร์โทรศัพท์ติดต่อพนักงานบริษัท BRK INTERTRANSPORT			
No.	รายชื่อ	ตำแหน่ง	เบอร์ติดต่อ
1	คุณ เกษ อินเลียง	ผู้จัดการ	
2	คุณ อุทัย แสงอรุณ	Safety	
3	คุณ ภาธนวิทย์ โคกบุญชู	ธุรการขนส่ง	

Update 25/01/2024