

Occupational Health & Safety

Security, safety and occupational health are important issues in the petroleum industry. This is because accidents in work and/or production processes, transportation or distribution can impact a wide variety of stakeholders, such as by leading to injuries and loss of life or property of operators and surrounding communities; causing business impacts in the form of business disruption to correct remedy situations and compensate related persons; and environmental impacts such as spills of pollutants. Thus, the company has set its security and occupational safety and health policy for employees and contractors to have the duties and responsibilities in safety for themselves and colleagues according to local laws and international standards such as ISO 45001 and to operate consistently with the Process Safety Management (PSM) system under the safety, security, occupational health, environment and energy (SHEE) management structure. Accordingly, work committees are

responsible for setting SHEE policies, conducting reviews, making proposals and providing resource support, as well as to appoint work communities to support SHEE work to develop SHEE management standards and systems effectively, efficiently and continuously and sustainably (Disclosure 403-1). The safety management system includes work-related Hazards Identification, risk assessment, and Incident investigation and improvements. Accordingly, the company stipulates for inspection of operations inside the organization such as safety patrol and meetings to announce inspection results and monitoring and correction of results by the Safety Committee by at least once monthly according to legal specification, along with inspection from external audit such as audits to assess compliance to the ISO 45001 standard, etc. to ensure that the safety management system and inspection and monitoring systems cover all employees and contractors (100%) operating in the refineries and the headquarters.

Targets:



Zero Occupational Illness Frequency Rate (OIFR).



Zero Lost Time Injury Frequency Rate (LTIFR).



Zero Fatality Rate.



No significant oil and chemical spills in the environment.



Zero spills of flammable chemicals or chemicals from primary containers or production processes leading to serious impacts (Tier 1) according to API 754 specifications.

Occupational Safety and Health Management Guidelines

The company is determined to improve and develop its safety, security, occupational health, environment and energy (SHEE) management system continuously in line with the safety management and administration system according to ISO 45001 along with the Process Safety Management system (PSM). The company continuously facilitates activities that promote safety both inside and outside the work area, which is known as Safety 24 hours. The Safety 24 hours programs encourages employees in all levels, including contractors to increase safety awareness and knowledge on safety practices and develop personal accountability.



Activities to promote safety culture in operations include the following:

- Promotion of safety culture transformation such as through Line Walks by work site executives to give importance of safety awareness for workers and to conduct Field Risk Assessments (FRA) which assigns employees to seek for hazards and risks to conduct proactive prevention.
- Regular monthly meeting and safety patrol with safety officers and contractors.
- Giving of Contractor Safety Management Recognition Awards to contractors who correctly follow procedures and serve as good role models for their colleagues.



- Safety promotion activities organized by the Safety Committee and from meetings and exchanges of opinions between executives and employees.
- Promote prevention and self-care to reduce the spread of COVID-19.

Activities to promote safety outside the work area include the following:

- Campaign for employees to drive safely and to wear safety helmets every time when driving motorcycles and wearing of seatbelts before travel.

The company's continuous effort in safety and safety activities led the company's employee safe work hours to reach 6,000,000 manhours without lost time accidents. In addition, in 2022, the company received an honorary award for being the Outstanding Model Enterprise Award in Safety, Occupational Health and Working Environment (National Level) for the 6th consecutive year from the Ministry of Labor.

Work-related Hazards Identification, Risk Assessment, and Incident Investigation

(Disclosure 403-2)

The company has procedures to identify hazard identification and risk assessment include improvement opportunity identification through What If method and HAZOP, among others, and these cover the work activities of employees and contractors, with important processes including the following:

1. These measures determined hazard, risk, and improvement opportunity identifications and assessments for all procedures to eliminate hazard and minimize risks by using "The hierarchy of control" method at acceptable levels and to review this process at least one time a year or any changes occur and to review this process at least one time a year or any changes occur.
2. The company has a process to conduct Job Safety Analysis (JSA) for non-routine activities to identify hazard and surveillance of work environment and worker health including exposure monitoring hazardous situation and comprehensive risk assessment, in addition to having an Online Work Permit system.
3. Covered in the control and preventive measures are compliance on work permit, requirement to have a regular Safety Talk among employees before the start of a workday and the compliance checks on safety rules at work to enhance effectiveness of the process Employee- or contractor-conducted risk assessments on the engineer or trained supervisory level on risk assessment and submission of risk assessment reports and control measures to section managers for review and approval.
4. Engineers and supervisor and above of employee or contractor go through development courses on risk assessment procedures relevant to their work. After assessing risks and controlling measures, level up all results and recommendation must be compiled for the management team to review and sign off to. Everyone always has a duty to review and monitor implementation of the recommendations to control risks.

The risk assessment results in 2022 showed that risk activities for work-related hazards that might lead to high-consequence injuries include fires, chemical spills, falling materials, or impacts with materials, etc., and appropriate hazard control measures have been implemented appropriately according to the hierarchy of controls such as safe production process design, risk and procedure review, safety management system review and procurement of personal protective equipment for employees and contractors.

In addition, Bangchak encourage employees to write Safety Observation Reports about unsafe acts and unsafe conditions to prevent potential incidents that employees or contractors might observe or encounter as being unsafe in work and that might impact operators. Anyone has the authority to stop work if he or she finds unsafe conditions or unsafe acts. Unsafe conditions and unsafe acts must be reported to manager and area supervisor in order to resolve the issues and ensure safe conditions before proceeding with the work. Furthermore, employees are encouraged to identify work hazards and risks through work groups such as Field Risk Assessments (FRA), Safe Work Practices (SWP), Contractor Safety Management, Operation Audit Team (OAT), PSM Daily Audit and SHE Committee, and work plans are specified for conducting joint inspections and making recommendations with operators to raise awareness and increase knowledge and understanding in operators regarding potential hazards in order to lead to appropriate early prevention.

Work-related risk and incident investigation process (Disclosure 403-2)

The report and investigation process of work-related risk situations and accidents are vital in safety management. The objective of such the process is to identification of the root causes and set up control and prevention measures to prevent reoccurrence. Bangchak has put in place a systematic reporting system to record unsafe actions, unsafe conditions, and near-miss incidents. \ Whenever an incident happens, the people present in the situation or people who encounter the situation must write a report to the person involved of the area and related persons to inform them within 24 hours. A working team will be formed to investigate the accident or incident that occurred in order to determine the root causes through the “Why Tree analysis” and to specify measures for preventing recurrence along with recommendations for improvements (opportunities for improvements: OFI) with monitoring of corrective and improvement actions according to investigation results and preparation of lesson-learned from the incident are shared with the employees and contractors through various communication channels.

Work-related health services (Disclosure 403-3)

The company uses a proactive occupational health process to conduct health risk assessments covering all refinery areas to specify risk control measures with regular monitoring and inspection of the work environment such as by measuring lights, noise, heat level and chemicals in work areas to ensure safety to the health of operators. In addition, corrective actions are taken in work sites and/or work procedures with follow-ups on corrective actions in cases where measurement results show values exceeding the

safety standards, and for the office area, air quality measurements are monitored inside the building according to the recommendations of the Singapore Standard 554:2016 with the measurement parameters including temperature, relative humidity, wind speed, carbon dioxide and carbon monoxide, particular matter smaller than 10 microns, particulate matter smaller than 2.5 microns (PM 2.5), total VOCs) and formaldehyde, not to mention total bacteria count (airborne) and total fungi count (airborne). Accordingly, no value exceeded the standard value in the period from 2018 to 2022.

Furthermore, the company assigned safety officers and occupational medical practitioners to supervise and advise employees and contractors in matters related to occupational health and to monitor the health of employees and contractors as follows:

- Employees receive health examinations at the start of employment, during employment and at termination of employment.
- Employees receive annual health examinations covering general health examinations and health examinations according to occupational risks factors, with the company’s occupational health experts and occupational physician specifying the list of health examinations based on risk factors. The team analyzes the test results based on internal and external factors in the workplace. If employees are found to be ill, they are advised to visit a doctor and receive ongoing health care. In addition, there are additional check-up items based on risks specific to each age group such as check-ups for prostate cancer, pancreatic cancer and gastrointestinal cancer as part of the employee’s health examination program covering diseases from daily living, and employees are instructed to continuously monitor their health.
- Conducting medical emergency training provided by the Bangchak and contracted hospital rescue teams to ensure coordination flexibility and increase rescue effectiveness.
- Hiring occupational medical experts to assess and improve the general and risk-factor-based health examination program.
- Bangchak required all contractors to undergo risk-factor-based health check. This includes analysis follow-up and consultation. In cases where employees have abnormal health results, are required to be submitted all of health checkup reports to supervisors of Bangchak and a representative of the Safety Section.

Under the Personal Data Protection Act, the company considers all employees’ and contractors’ health information to be personal data, and the company intends to use such

data only to promote health and prevent hazards from employees and contractors that are hazardous to their health. Accordingly, employees and contractors can file complaints in cases where such data is used inappropriately, and they can do so through various channels, including the labor union or the employee committee of the company, whistleblower channels, and the 1651 hotline.

Participation, Consultation and Communication on Occupational Health and Safety (Disclosure 403-4)

Bangchak has appointed the Safety, Occupational Health, and Work Environment Committee the official working group in accordance with the regulation to ensure the safety, occupational health and work environment to ensure continuous improvements in the area. The working committee is a collaboration between management and employee representatives. At least 50% of the committee members must come from representatives of operations staff where each function elects their own representative. In addition, a meeting is to be held at least once per month to announce news, updates on progress and operation, present future plans, review safety performance, and report result to management.

The company communicates and provides opportunities for employees and contractors to participate in occupational health and safety issues through various activities such as the SHEE Excellence Day with communication through Outlook, announcement boards, loudspeakers (safety radio channel) to provide news, knowledge, warning signs, and life-saving rules promotion to apply IOGP's life-saving rules through the use of media that is easy to understand.



Occupational Health and Safety Training (Disclosure 403-5)

Bangchak provides safety, occupation health, and fire suppression training for all employees and contractors prior to starting work based on job positions, job types, and work risk. In addition, the company prepares training plans, provides training, assesses outcomes and records, and keep training history information to develop knowledge, capabilities and understanding in what might cause hazards or accidents along with hazard prevention and control during operation to ensure safe performance of duties.

The company trains and issues electronic passes to contractors (express safety passes) by recording data about contractors who will access areas and sending information via an electronic system with the ability to view safety videos online for convenience and to reduce training time.

Promoting employees' health (Disclosure 403-6)

Bangchak promotes the health of employees and contractors outside of work-related activities as follows:

- Medical staff are available during working hours in the company's medical room to provide first-aid and emergency assistance without charge.
- The company provides annual health check-up, flu, and COVID-19 vaccinations for employees.
- The company has a project to promote employees health with aim of preventing non-communicable diseases (NCDs) including monthly exercise activities such as by accumulating walking steps, running and doing simple cardio exercises and participating in e-sport competitions such as dancing and boxing competitions, etc. The company also has an activity to encourage the employee to consume foods that contain vitamins by announcing it through media to transform adequately "good" people to see the value of Vitamin D and to reduce sugar intake by eating more vegetables, etc.
- World Heart Day activities for employees to recognize the importance of heart disease and to review basic first-aid techniques such as CPR and how to use automated external defibrillators or AED.