

2023 Performance

In 2023, the Company successfully achieved its safety objectives within the manufacturing process as outlined, with no incidents of significant leaks of hazardous substances from primary containment vessels or manufacturing processes resulting in severe consequences (Tier1 and 2) as per API 754 requirements.

Oil Spill Management and Prevention

The Company acknowledges the impact of leaks of raw materials and products in the petroleum refining industry, which can have economic, social, and environmental implications. These include the financial cost of damage to raw materials and products, the impact on the health and safety of employees and the surrounding community, as well as the contamination of soil and water sources in the affected area. Therefore, the Company is committed to reducing the risk of leaks and implementing effective emergency response measures covering the entire value chain of the Company, from the transportation of crude oil, refining, and transportation of petroleum products to storage in oil depots and gas stations as follows:

- Selecting oil transportation vessels that have inspection and assessment systems meeting the requirements and standards equivalent to those of the oil industry.
- Implementing safety measures for maritime transportation begin with the vessel receiving process where tug boats are utilized to tow ships in and out of the dock in line with the dock, mooring lines are secured to the vessel according to standards before oil transfer operations and boom barriers surround the vessel to prevent oil spills into the water, containing the oil within a limited area for rapid containment and recovery. Moreover, hoses are securely connected to the vessel, and constant vigilance is maintained during pumping operations.
- The Company has a comprehensive plan for preventing and mitigating oil spills, including regular emergency response drills conducted annually. Additionally, opportunities are provided for the community to participate in observation activities. This year,

the Company supported the Department of Port Authority, Ministry of Transport, in organizing the 12th annual training exercise for oil and chemical spill response. This exercise involved collaboration among multiple agencies with roles in spill response planning, operations, data support, and providing training facilities. The Company also contributed the “Sritarak 8” vessel stationed at Bangchak Pier along the Chao Phraya River for this exercise.

- Emergency response equipment and training in oil spill removal are provided, along with opportunities for the community to participate in observation activities.
- The Company has developed the capabilities of its employees to respond to incidents by participating in training and practical exercises alongside relevant government agencies and companies within the oil industry on a continuous basis.
- The Company has continuously developed and improved safety technology for equipment, systems, and tools in line with the guidelines set by the Oil Company International Marine Forum (OCIMF) which includes upgrading fire suppression systems at the docks to modern standards and installing additional closed-circuit camera systems.
- The Company has designed oil tanks and pipelines and installed equipment according to international standards, including Automatic Tank Gauge (ATG) systems and overflow alarm systems to measure oil levels and prevent tank overflows. Additionally, areas are designed for oil containment in the event of spills, such as containment dikes and gas detector systems are also installed for hazardous gas monitoring. Furthermore, preventive measures and monitoring are implemented to guard against emergencies during operations. These include Closed-Circuit Television (CCTV) surveillance, shift area patrols, and monitoring of oil transportation and storage through stock and oil transfer monitoring systems.
- Operational procedures and training programs are provided for relevant personnel involved in the process.
- Systems, plans, and equipment inspections (PM) are conducted at appropriate intervals.
- Risk assessments and evaluations are conducted to identify potential points of leakage (LOPC) in each area, along with control and prevention measures and continuous monitoring of the effectiveness of these

measures is performed. Moreover, safety checks in the manufacturing process are conducted, and analysis is carried out to propose corrective and preventive measures to prevent recurrence.

- The vessel “Sritarak 8” stationed at the Bangchak refinery is equipped to store up to 10,000 liters of oil residue collected from the side collecting boom system alongside the vessel, complemented by a belt skimmer kit onboard. It is equipped with fire suppression systems to enhance safety during emergency situations and features an onboard meeting room for facilitating operational planning by employees. In addition to managing oil spill incidents within the Chao Phraya River area, which falls under the refinery’s jurisdiction, it also supports oil residue collection efforts for government agencies and environmental conservation associations such as the Oil Industry Environmental Safety Group Association (IESG), of which Bangchak is a member. Furthermore, it extends support for disaster relief efforts or other requests for assistance. In 2023, it participated

in oil spill mitigation missions in the offshore single point mooring (SPM) area in Rayong province, where personnel and cleanup operators collaborated in executing the tasks.

- The Company has conducted EMS Hazmat training in collaboration with the Thailand Rescue group for external individuals such as medical personnel in the EMS1669 system, rescue teams, and emergency response teams (ERT) in industries interested in the course. The Company regularly reports the results of its operations to the task force monitoring and continuously evaluates risks to report to the organizational risk management committee every month which ensures confidence that the Company is committed to quality and safety management. Through the Company’s efforts in preventing and managing oil and chemical spills in operational areas, there have been no significant oil or chemical leaks, fostering community trust in safety and environmental quality near the refinery and port facilities.

Oil and Chemical Leakages	2019	2020	2021	2022	2023
- Number of significant oil and chemical spills exceeding 100 barrels per time (Case)	0	0	0	0	0
- Amount of oil and chemical spills exceeding 100 barrels per time (Barrels)	0	0	0	0	0
- Number of significant oil and chemical spills exceeding 1 barrels per time (Case)	2	3	0	0	0
- Total amount of oil and chemical spills exceeding 1 barrel per time (Barrels)	4	11	0	0	0
- Data coverage (as percentage of: Annual Production (MMBOE))	100	100	100	100	100