

Safety Management

Safety Initiatives

The INPEX Group has implemented a wide range of precautionary measures to ensure safe operations in various Project Divisions at the headquarters and Operational Organizations around the world.

As in the previous year, in fiscal 2010 members of senior management visited project sites in Japan to hold HSE Talks and confirmed that office staff and site workers are becoming more aware of safety issues. We also set numerical targets for the INPEX Group with reference to safety data collected by the International Association of Oil & Gas Producers (OGP), and met those targets in fiscal 2010. In response to the Deepwater Horizon drilling rig explosion in the Gulf of Mexico in April 2010, we started reviewing our guidelines and conducted HSE reviews for all projects currently at the design stage.

Operational Organizations conduct their own safety activities according to the country in which they are operating and other circumstances surrounding their operations. Operational Organizations in Japan dramatically reduced the number of accidents and injuries in contractor operations by conducting on-site monitoring and inspections, ensuring that safety is managed according to the HSE plans, and making other efforts related to contractor HSE management. Overseas Operational Organizations promote safety in ways that match each type of operation—geological surveys and drilling operations, for example.

Sharing Accident Information

When an incident, injury or near miss occurs at any of our Operational Organizations, the Organization creates an incident report in accordance with our Corporate HSE Management System Procedure, "Incident Reporting and Investigation," that includes a summary of the incident, causes, and measures to prevent recurrences. Reports are promptly submitted to headquarters and from there reported to other Operational Organizations with the goal of preventing the same accident at other sites.

We also strive to establish an HSE culture among our many employees by issuing *Safety Highlights*, a monthly publication featuring the latest HSE activities and topics.



Accident Prevention

The INPEX Group has been collecting HSE-related data since fiscal 2008 in accordance with the Corporate HSE Procedure for HSE Performance Data, and defines accident data based on the safety performance indicators of the OGP, of which we are a member.

We have engaged in ongoing efforts to promote safety by developing HSE management systems and by ensuring their implementation throughout the Group.

In fiscal 2010, both lost time injuries and medical treatment injuries decreased from fiscal 2009. As a result, the number of all accidents also decreased significantly. We believe this to be the result of determined efforts made by our Operational Organizations in Japan to prevent accidents. Specific activities we undertook to enhance HSE management in collaboration with contractors included strengthening contractor management by, for instance, conducting on-site monitoring and inspections and making sure that check sheets were filled out, and also asking contractors to create HSE plans and perform construction management based on those plans.

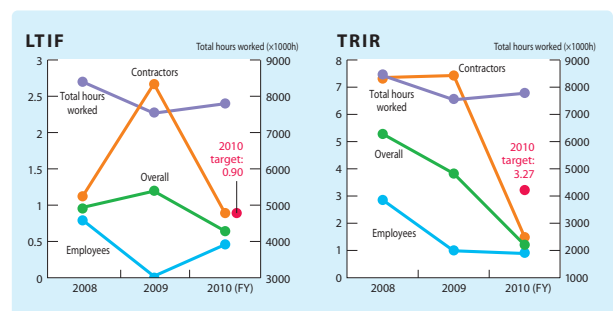
The INPEX Group will continue to implement various activities to prevent accidents.

Number of Work-related Accidents per Fiscal Year

		Fatalities	Lost time injury ¹	Restricted workday injury ²	Medical treatment injury ³
FY2008	Employees	0	3	1	7
	Contractors	2	4	5	23
	Overall	2	7	6	30
FY2009	Employees	0	0	1	3
	Contractors	0	9	3	13
	Overall	0	9	4	16
FY2010	Employees	0	2	0	2
	Contractors	0	3	0	2
	Overall	0	5	0	4

1. Incident involving a non-fatal injury that results in at least one day off work (LWDC)
2. Incident involving a non-fatal injury that results in restricted duties (RWDC)
3. Incident involving a non-fatal injury that requires treatment by a medical professional (MTC)

Accident Frequency by Fiscal Year



1. Lost time injury frequency (LTIF): Rate of injuries resulting in fatalities or lost time per million hours worked
2. Total recordable injury rate (TRIR): Rate of recordable injuries (fatalities, lost time, restricted workdays, and medical treatment) per million hours worked
3. LTIF and TRIR targets are calculated each fiscal year based on a targeted percent reduction from the previous year.

Contractors' Safety Management

The INPEX Group makes sure all contractors involved in its operations fully understand the HSE Policy and works together with contractors to prevent accidents and reduce environmental impact. Operational Organizations in Japan and overseas conduct safety management through their own systems developed to reflect the unique circumstances posed by their projects and the countries in which they operate and based on the Corporate Procedure for Contractors' HSE Management, which stipulates HSE management methods for contractors.

We are strengthening HSE-related communication with our contractors to make construction safer by holding process meetings, meetings to explain operational procedures, and pre-work meetings on site.

Contractors' safety management is one part of our HSE objectives, and we will strive to improve our performance in this area.

Contractor Management in a Platform Removal Project

From May to early July 2010, Offshore Iwaki Petroleum Co., Ltd. successfully completed the removal of its platform, some 40 kilometers off the coast of Fukushima Prefecture at a depth of 154 meters, without a single lost time injury.

We believe this to be the result of various HSE activities, including a thorough risk assessment conducted with contractors before deploying a crane barge and pre-work safety checks performed by workers and managers on the platform.

Blessed also by favorable weather, we were able to finish the removal operation—which is said to be more difficult than construction—without incident.



Removing above-water structures of the platform

Employee Voice Reducing Risk in Pipeline Construction

Toru Ohashi
Coordinator
Gunma Construction Office
Pipeline Construction Division



Pipeline construction work involves different construction jobs taking place at multiple locations across a long segment of land. Accidents sometimes occur because HSE management cannot reach every work site. To address this problem, as soon as we decide on a contractor, we require the contractor to submit an HSE plan that fulfills our HSE requirements. Part of this process involves holding a meeting to discuss with the contractor our HSE procedures for each task, identify risks, and devise measures to reduce risk before starting construction. An INPEX employee in charge of HSE and the contractor jointly conduct patrols to confirm whether HSE training and management is being implemented according to plan.

In these ways, we strive on a daily basis to eliminate hazards and improve installations at work sites to achieve completion of the project without accident or injury.

Employee Voice Contractor Management at the LNG Construction Division

Shigeru Serada
Coordinator
Naoestu LNG Receiving Terminal Construction Office
LNG Receiving Terminal Construction Division



At the Naoestu LNG Receiving Terminal, we have to simultaneously manage multiple contractors for different construction jobs, including the LNG tanks, plant facilities, pier facilities, and pipelines. For instance, building the LNG tanks involves a civil engineering contractor constructing a 40-meter-high concrete containment wall and a mechanical engineering contractor constructing the inner tank body, both working in the same area at the same time. With other plant facilities contractors also working around the LNG tank, we make sure to coordinate work between contractors to ensure their jobs are performed safely.

Because this project will employ as many as 1,000 workers at its busiest stage, managing the safety of all workers, including those of subcontractors, is also critical. To do so, we practice a comprehensive safety management program that employs the A-PCDA cycle, with steps that include conducting risk assessment using HSE management systems, installing safety systems, creating operational procedures, communicating work instructions to subcontractors, performing on-site safety patrols, and correcting technical problems. As a result, we have had zero accidents and zero injuries in the more than two years since we began construction.

Employee Voice Managing Contractors and Raising HSE Awareness at the Nagaoka Field Office

Keijiro Kawano
Production Unit
Domestic Project Division



At the Nagaoka Field Office, numerous contractors undertake over 100 construction projects every year. Managing contractors is important for safe operations, so our efforts have focused on conducting thorough safety management by publishing management manuals to be used at the office, creating HSE plans, safe work guidelines, and other documents, and introducing a work authorization system. We have also introduced an HSE point registration system to raise employees' awareness of HSE at the office. As a result, individuals have been active and continually working on their HSE activities. "Zero Incidents" and "Safety" are not end goals: Persistence is the key. All of us at the Nagaoka Field Office will continue to work together on contractor management.

Safety Management

Safety Management Activities at Operational Organizations

Operational Organizations in Japan and overseas conduct their own safety management activities to promote safety in their operations.

Our Operational Organization in Venezuela has applied the near-miss prevention activities* that have taken root in Japan to its own safety management. At our Geological Survey Project in Indonesia, the Project created a preliminary HSE plan and carried out survey activities based on the plan. Operational Organizations in Japan have also striven to ensure road safety and reduce work-related traffic accidents by installing event data recorders (EDR) in company vehicles. Going forward, we plan to spread safety management activities between Operational Organizations to conduct them on a Group-wide level.

* Employees are encouraged to record small accidents that do not involve human or material damage, but scare or startle employees at project sites and share their experiences with fellow workers in order to prevent a small accident from becoming a serious one

Safety Management at the Abadi Project

Our Operational Organization in Jakarta, Indonesia, is partnering with the Masela Project Division and the Technical Division at the headquarters to make preparations for front-end design work for developing the Abadi Gas Field. The development plan is based on the unprecedented concept of placing a floating LNG production facility on the ocean, which, given its remote location from land and the necessity of engineering its hydrocarbon processing facilities to fit and operate within the confined space of a floating structure, requires being prepared for the risks posed by such unique conditions. Our aim is to come up with design specifications that make sure the design includes measures to control these risks.

One example of the steps involved in this process was a peer review meeting we set up in Jakarta where not only staff from our Technical Division in Tokyo but also external experts on structure, facilities, HSE, and other areas could exchange ideas. This helped us confirm whether sufficient precaution is being taken for the front-end design process.



Peer review for the Abadi Project

HSE Activities in the Tanimbar Islands Geological Survey

As part of its exploration activities in the Asian region, the INPEX Group's Asia, Oceania & Offshore Japan Project Unit conducted a terrestrial geological survey of the Tanimbar Islands in eastern Indonesia from June to July 2010. The Tanimbar Islands are a group of islands covered in lush vegetation and surrounded by exquisite coral reefs, but the villages that dot the islands have their own customs and cultural practices and lack adequate medical services. Responding to concerns over the risks of contracting an endemic disease, we painstakingly discussed safety measures beforehand, hired medical staff to accompany employees during the survey, and had the person in charge of safety management take records of risk factors during work and caution workers on those risks every morning. Consequently, besides bug bites and other minor calamities, we were able to complete the survey without incident while also establishing a positive relationship with local residents.



A safe working outfit



Taking geological samples

Near-Miss Prevention in Venezuela

Near-miss prevention activities are commonly practiced by our Operational Organizations in Japan, but were not widely implemented at overseas operational sites.

A production site in Venezuela, under constant encouragement from our Japanese engineers, created a system by which site workers take the initiative and submit near-miss reports. Each near-miss report features photographs, illustrations drawn by the reporter, and other creative methods for making its content clear to anyone. Discussion of the reports between employees enhances their awareness of on-site safety.

Offshore Oil Spill and Response

On April 20, 2010, an offshore drilling rig off the Gulf of Mexico operated by another company in our industry exploded and burst into flames, killing 11 workers and starting an oil spill that spread throughout the Gulf. The leaking well was completely sealed some three months later, but US regulatory authorities are still investigating the causes of the accident.

As we monitor the progress of this investigation, the INPEX Group is learning how major oil companies are responding to the spill working through the International Association of Oil & Gas Producers' (OGP) activities, while also trying to make sure no other offshore oil spills occur by discussing and revising selection methods for drilling contractors—who serve a central role in well drilling operations—contractor HSE management, well drilling design standards, well drilling control guidelines, and the details of our oil pollution prevention and response plan.

Emergency Response Systems

In the event of a Level 3 emergency (any situation caused by a serious event, accident, or disaster the effects of which are expected to negatively impact our business continuity and greatly hinder fulfillment of our social responsibility), the INPEX Group sets up a Corporate Crisis Management Team and respond to the emergency in accordance with corporate- and operational-level emergency response manuals.

The Corporate Crisis Management Team works together with the Operational Organization's Emergency Response Team established at the operational site experiencing the emergency to collect external information, communicate to stakeholders in and outside the company, respond to events, obtain the resources needed to arrange medical treatment and shelter, ensure security, and take care of employees' families. During the recent social unrest in Egypt and Libya, and also during the Great East Japan Earthquake, we implemented emergency management based on a policy that places the utmost priority on human lives.

Employee Voice Applying the Oil Spill Response Guidelines at the Suriname Drilling Site

Kazuto Yoshimoto
Houston Office

"Safety First" is an obvious but also the most important policy for drilling engineers. One of the activities the Suriname Team has conducted to achieve safety first is "Drilling the Well On Paper" (DWOP). DWOP is a process by which engineers with different expertise come together to verify whether the planned well design is optimal from a safety perspective and to identify hidden sources of risk. The results of the meeting were incorporated into our drilling procedure.



A DWOP workshop

Emergency Response Training at the Nagaoka Field Office

In Japan, Operational Organizations conduct regular emergency response training on their own and jointly with headquarters in accordance with annual plans.

Nagaoka Field Office conducts training to demonstrate whether, in the event of a major accident (oil tank explosion and fire) at the Koshijihara Plant, it can deploy an initial response to the disaster quickly and smoothly, quickly set up an on-site emergency response team, and execute procedures to communicate and collaborate with the Domestic Project Division's Crisis Management Team, Corporate Crisis Management Team, and other units, and restore systems. Following training, assessments and improvements are made to prepare for the next training drill in a meeting of all training participants to reflect on mistakes and exchange opinions on ways to improve the response.



Oil tank fire response training at the Nagaoka Field Office