

Occupational Safety and Health

Preventing Occupational Accidents

Fostering a Safety-Driven Corporate Culture

To make existing safety activities more comprehensive and effective, in fiscal 2016 we launched initiatives aimed at fostering a safety-driven corporate culture, encompassing eight elements. These are organizational governance, positive involvement, resource management, work management, motivation, learning and knowledge transmission, risk perception, and mutual understanding. In keeping with findings from assessments based on headquarters' evaluation standards, business sites identify issues and formulate and execute plans to cultivate a safety culture as part of ongoing improvement efforts.

Eliminating Major Disasters

We have undertaken a range of activities to prevent occupational accidents. In fiscal 2018, we initiated efforts that centered on eliminating major incidents. We conduct risk assessments of work that is highly susceptible to serious accidents. We implement systematic risk reduction measures and endeavor to make operations inherently safe. From fiscal 2020, we undertook safety activities with partner companies*, adding safety education and training from fiscal 2021 as a priority item.

We investigate the causes of all incidents regardless of whether they result in lost work time, striving to prevent similar incidents by assessing and rolling out measures.

Occupational Safety and Health Council

This is a forum in which representatives of the Companywide union and UBE's occupational safety and health officers gather to review annual occupational safety and health results and plans for the new fiscal year and discuss requests from both sides. Participants share prevailing issues and discuss ways to address them. We reflect forum results in the following year's plans. Many major accidents have occurred among subcontractors. Labor representatives and management recognize the importance of coordinating better with those firms. Our annual plans accordingly include measures to foster safety activities with subcontractors.

Labor-Management Councils

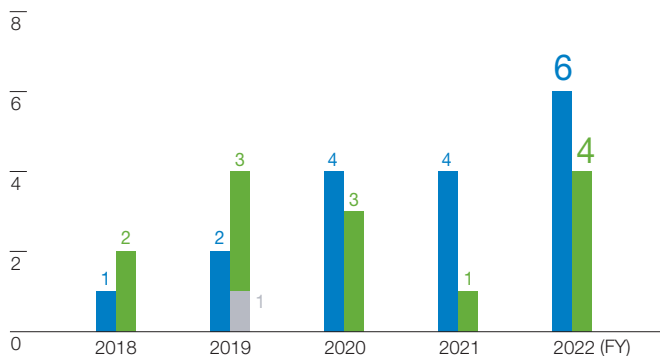
Following Occupational Health and Safety Council discussions with Companywide union representatives, regional business sites convene gatherings to discuss local union and management requests.

Number of Fatal and Lost Work Time Incidents among Domestic Operations

Number of Lost Work Time Incidents

■ UBE Group employees
■ Employees of partner companies of the UBE Group* (■ Number of fatal incidents)

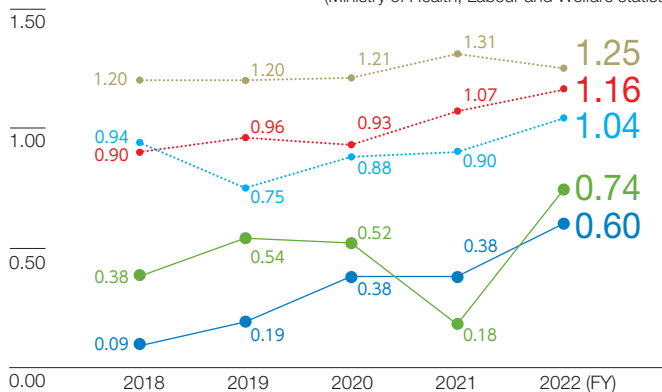
(Incidents)



Note: Data excludes former Construction Materials Company.

Lost Work Time Injury Frequency Rate

● UBE Group employees
● Employees of partner companies of the UBE Group*
● Manufacture of production machinery
● Chemical industry
● Manufacturing industry (Ministry of Health, Labour and Welfare statistics)



Note: Data excludes former Construction Materials Company.

Measures to Prevent Occupational Accidents

| | Goals | Activities | Status and History of Initiatives |
|---|--|---|---|
| 1. Setting occupational accident-related benchmarks | Prevent occupational accidents | Establish numerical goals | Fiscal 2022 goal: 0 incidents with lost work time and 14 without, for a total of 14 Fiscal 2022 result: 10 incidents with lost work time and 18 without, for a total of 28 |
| 2. Use of occupational accident information | Prevent similar accidents | Create occupational accident information database and publish it on intranet | We are using information on occupational accidents at each business site as important data sources for facilities and operational risk assessments. |
| 3. Audits and inspections | Drive ongoing improvements at business sites <ul style="list-style-type: none"> Improve weak areas Enhance safety levels | (1) Audits <ul style="list-style-type: none"> Audits conducted by the Head Office and business site environmental safety personnel Quantitative evaluation of offices in line with checklists and feedback <ul style="list-style-type: none"> Chemical substance management audits Audit three management areas (work, work environments, and health) as covered by the Occupational Safety and Health Act (2) Inspections <ul style="list-style-type: none"> Members of the president-chaired inspection committee visit business sites Confirming results of audit and activity achievements and conveying reviews | History of improvement activities inspired by audits and inspections <ul style="list-style-type: none"> Fiscal 2013: Summarize outstanding activities in Best Practices and Safety and Health Guidelines and publish these on intranet Fiscal 2016: Begin assessments according to eight culture of safety components, which are organizational governance, positive involvement, resource management, work management, motivation, learning and knowledge transmission, risk perception, and mutual understanding Fiscal 2017: Start disclosing evaluation criteria and verifying gaps between these and self-evaluations Fiscal 2018: Publish evaluation criteria on intranet and integrate UBE Group evaluation criteria in a culture of safety Fiscal 2018: Audit all Chemicals business sites Fiscal 2019: Audit Research and Development Department Fiscal 2019: Establish Companywide criteria in three management areas, build database for substances handled in-house and related regulations, formulate quantitative risk assessment techniques for chemical substances, and sequentially and continuously improve Fiscal 2017: Launch small safety team reports and group discussions |
| 4. Safety and health rallies | Share information Encourage activities | Annual UBE Group health and safety rallies Participants: Approximately 300 people (Group executives and employees, including online) participating | Zero accident efforts and resolutions to enhance workplace environments <ul style="list-style-type: none"> Recognition by the president (to entities and individuals for outstanding contributions to health and safety) Small safety team presentations on experiences Special lectures from outside instructors on safety and health management Reciting safety goals after rallies |

Process Safety and Disaster Prevention

We endeavor to eliminate process accidents through initiatives that ensure our facilities are safe and secure. We also undertake activities to minimize damage in the event of major natural disasters. Our focuses in fiscal 2022 were on eliminating facilities and environmental accidents, improving safety at high-pressure gas facilities, and preparing for natural disasters.

Efforts to eliminate facilities accidents entail sharing information about incidents through accident information liaison meetings and business sites rolling out measures to prevent similar recurrences. We are also stepping up facilities maintenance and management through safety management liaison meetings. We endeavor to eliminate environmental accidents by identifying environmental risks and deploying measures to reduce those risks. For certified high-pressure gas sites, we set up an improvement agenda in line with assessment findings from the Japan Industrial Safety Competency Center and engage in systematic improvement initiatives. We push ahead with measures to address natural disasters by having each business site conduct self-assessments in line with self-assessment criteria for such measures, and pursue ongoing improvements. We also respond to the Industrial Process Safety Action Plan of the Japan Petrochemical Industry Association.

Industrial Process Safety Action Plans

See page 5 for progress with the Industrial Process Safety Action Plans.

Initiatives for Process Safety and Disaster Prevention

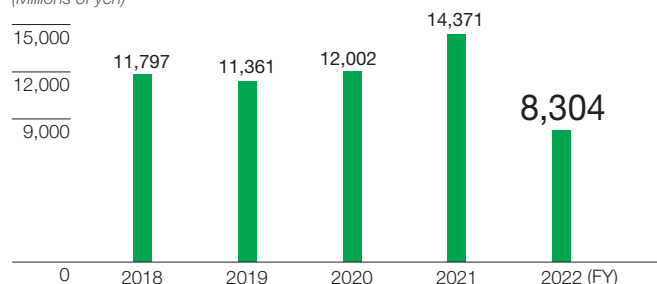
UBE Group Facility-Related Accidents

| | Number of Accidents | | | | | |
|-----------------|---------------------|------|------|------|------|------|
| | (FY) | 2018 | 2019 | 2020 | 2021 | 2022 |
| UBE | | 4 | 4 | 13 | 5 | 5 |
| Group companies | | 0 | 3 | 2 | 3 | 5 |

In fiscal 2022, the UBE Group recorded 10 accidents, investigated their causes, and implemented recurrence prevention measures.

Occupational Safety, Health, and Disaster Prevention Expenditures of the UBE Group

(Millions of yen)



Plant Safety Assessment

Plant safety assessments of new, additional, or modified offices and facilities are carried out following the methods stipulated in the plant safety assessment standards. In fiscal 2022, the UBE Group carried out 129 such safety assessments.

Response to the Japan Petrochemical Industry Association's Industrial Process Safety Action Plans

| | Initiatives that Member Companies Should Take | UBE's Initiatives |
|--|---|--|
| 1. Commitment of corporate management to industrial process safety | (1) Commitment to basic principles and policies related to process safety and other aspects of safety | Establishing and maintaining the UBE Corporate Philosophy, UBE Management Principles, and UBE Group Environmental and Safety Guidelines Messaging from top management to employees and partner companies about industrial process safety On-site roundtable meetings with top management held at facilities, facilitating direct communication between the president and employees |
| | (2) Commitment to policy on resource allocation for industrial process safety | Building an educational structure and using educational and training facilities to develop human resources Providing explanations to facilities regarding budgets and staffing for production plans, maintenance plans, and capital investment plans prepared by process safety divisions |
| 2. Setting goals for industrial process safety | (1) Set numerical targets for process safety | Numerical target: Zero major facility accidents |
| 3. Formulating action plans to implement industrial process safety measures | (1) Risk assessment | Conducting risk assessments with the participation of several departments from comprehensive and diverse perspectives for normal and unstable circumstances and when deploying new facilities and processes |
| | (2) Education and training to develop human resources | Participating in classes, on-the-job training, and risk assessment and educating about operational principles and know-how through experiential education and providing plant simulator education |
| | (3) Utilize information about accidents | Horizontally sharing information on accidents inside and outside the Company and their countermeasures through the Accident Information Liaison Group |
| | (4) Organizational operations | Implementing change management with operational management, facility management, process safety management, and design divisions when facilities are newly established or renovated and when procedures change |
| | (5) Facility maintenance and deterioration countermeasures | Update based on results of assessments of remaining service lives and formulate repair plans Harness the IoT, including for tablets |
| | (6) Maintain and enhance earthquake resistance of high-pressure gas facilities and conduct voluntary seismic assessments of existing piping | Assessing compliance with seismic resistance standards for high-pressure gas facilities, undertaking measures, and conducting seismic diagnoses of existing piping systems |
| | (7) Incorporate new methods and technologies to enhance safety | Incorporating operational data to analyze operational patterns, deploying future change prediction system, utilizing driving training simulators, smart devices, and electronic reporting system |
| | (8) Safety management that encompasses partner companies | Group companies and related partner companies hold joint safety management meetings Staff in charge of operational management, facility management, and staff from partner companies meet before construction begins to confirm safety |
| 4. Surveying and evaluating achievement of goals and implementation of measures | (1) Structure and operations relating to attainment surveys and assessments | Progress is checked and evaluated through annual audits Strategic Management Meeting considers the results of the year's activities when discussing measures for the next year |
| | (2) Respond to results of above survey and assessments | Based on assessment results, act on key priorities, which are to eliminate facilities and environmental accidents, improve the safety of certified high-pressure gas sites, and undertake measures to tackle natural disasters |
| 5. Initiatives to advance each company's own process safety activities (cultivating a culture of safety) | (1) Approaches to developing a culture of safety | Institute safety awards within the Group and at business sites Each business site formulated goals and plans to improve the safety culture and undertook improvement initiatives |
| 6. Leveraging external knowledge | (1) Harnessing third-party institutions | Have the Japan Industrial Safety Competency Center assess business site safety Set improvement goals based on assessment results and acted |
| | (2) Disseminating information externally | Provide safety and security information to local industry associations |
| 7. Communicating about risks with communities | (1) Risk communications tools and frequency | Hold regular dialogue with local residents Hold events for local citizens |
| 8. Efforts to prevent industrial accidents from earthquakes, tsunamis, and other natural disasters | (1) Evacuating employees in event of major earthquakes and tsunamis and approaches to facility setups | Formulating responses for earthquakes and tsunamis and conducting evacuation training, and assessing and reinforcing seismic resistance of facilities and piping Creating and implementing earthquake and tsunami countermeasure plans and formulating business continuity plans |