

The safety targets and results for FY2022 and safety targets for FY2023 are as listed below.

Item	Priority Issues (Target)	Implementation Status for FY2022	Evaluation	Planned Implementation Items for FY2023
Management System	1. Legal compliance	<ul style="list-style-type: none"> Strengthening the Legal Checking System Proper operation management based on relevant laws and regulations 	◎	<ul style="list-style-type: none"> Strengthening the Legal Checking (ongoing) Proper operation management based on relevant laws and regulations (ongoing)
	2. Development and revision of Plant Environment Control and Safety Regulations and Standards	<ul style="list-style-type: none"> Development and revision of Plant Environment Control and Safety Regulations and Standards 	○	<ul style="list-style-type: none"> Development and revision of Plant Environment Control and Safety Regulations and Standards (ongoing)
	3. Continuous improvement of the safety and health management system and improvement of the effectiveness of activities	<ul style="list-style-type: none"> Communication by the president, the plant manager and division heads of their commitment and active involvement Development of good PDCA¹ cycles for the health and safety management system and promotion of effective activities 	◎	
	4. Qualitative improvement of environmental safety audits	<ul style="list-style-type: none"> Implementation of appropriate follow-up to the findings of the head office's environmental safety audits Effective and proper implementation of environmental safety audits at affiliated companies in the plant area 	○	<ul style="list-style-type: none"> Implementation of appropriate follow-up to the findings of the head office's environmental safety audits (ongoing) Effective and proper implementation of environmental safety audits at affiliated companies in the plant area (ongoing)
	5. Thorough change management	<ul style="list-style-type: none"> Establishment of regulations and standards for MOC² rules. Strict application of MOC² rules at the plants and thorough compliance with them 	○	<ul style="list-style-type: none"> Establishment of regulations and standards for MOC² rules. (ongoing) Strict application of MOC² rules at the plants and thorough compliance with them (ongoing)
	6. Establishment of management infrastructure and fostering of a culture of safety	<ul style="list-style-type: none"> Understanding of the Safety Competency Evaluation System (evaluation table and explanatory notes) Formulate and implement a plant utilization plan based on the Safety Competency Evaluation System 	○	<ul style="list-style-type: none"> Understanding of the Safety Competency Evaluation System (evaluation table and explanatory notes) (ongoing) Formulate and implement a plant utilization plan based on the Safety Competency Evaluation System (ongoing)
Process Safety and Prevention Plan	1. Zero serious accident	<ul style="list-style-type: none"> Achieved target of zero serious accident 	◎	<ul style="list-style-type: none"> Zero serious accident
	2. Facility and process safety improvement	<ul style="list-style-type: none"> Continue the process risk assessment (Targeting to operations, facilities and chemical plants where accidents due to explosion fires, or chemical reactions are anticipated) Review of safety measures for non-routine work and unsafe operations Safety general inspections of open-system operations that may lead to serious accidents such as fires in operations that handle flammable liquids and flammable powder Reviewing and utilization of safety basic information 	○	<ul style="list-style-type: none"> Continue the process risk assessment (ongoing) (Targeting to operations, facilities and chemical plants where accidents due to explosion fires, or chemical reactions are anticipated) Review of safety measures for non-routine work and unsafe operations (ongoing) Safety general inspections of open-system operations that may lead to serious accidents such as fires in operations that handle flammable liquids and flammable powder (ongoing) Reviewing and utilization of safety basic information(ongoing)
	3. Improvement of facilities and maintenance management	<ul style="list-style-type: none"> Thorough investigation of equipment trouble causes, recurrence prevention and design technology improvement Improvement of equipment maintenance 	○	<ul style="list-style-type: none"> Thorough investigation of equipment trouble causes, recurrence prevention and design technology improvement (ongoing) Improvement of equipment maintenance (ongoing)
	4. Predictions and reliable responses to emergencies	<ul style="list-style-type: none"> Consider estimating and minimizing damage if the worst situations such as serious accidents and massive earthquakes occur Preparation of plant emergency-response standards and on-site manuals for major accidents and disasters, and implementation of anticipated drills 	○	<ul style="list-style-type: none"> Consider estimating and minimizing damage if the worst situations such as serious accidents, flood, and massive earthquakes occur(ongoing) Preparation of plant emergency-response standards and on-site manuals for major accidents and disasters, and implementation of anticipated drills (ongoing)
	5. Safe and stable operation management	<ul style="list-style-type: none"> Appropriate daily, monthly, and annual inspections, implementation of operation management, and effective use of data Reviewing and strengthen of response to process abnormal conditions Make sure safety assurance and implementation of reviews during startups (SU) and shutdowns (SD) 	○	<ul style="list-style-type: none"> Appropriate daily, monthly, and annual inspections, implementation of operation management, and effective use of data (ongoing) Reviewing and strengthen of response to process abnormal conditions (ongoing) Make sure safety assurance and implementation of reviews during startups (SU) and shutdowns (SD) (ongoing)
Occupational Safety	1. Achieve zero labor accidents requiring an absence of a day or more	<ul style="list-style-type: none"> Consolidated in Japan: 0 people Shin-Etsu Chemical: 0 people 	◎	<ul style="list-style-type: none"> Achieve zero labor accidents requiring an absence of a day or more
	2. Rate of labor accidents not accompanied by an absence of a day or more: 0.5 or less	<ul style="list-style-type: none"> Consolidated in Japan: 0.37 Shin-Etsu Chemical: 0.16 	○	<ul style="list-style-type: none"> Rate of labor accidents not accompanied by an absence of a day or more: 0.5 or less
	3. Human error reduction	<ul style="list-style-type: none"> Prevention of accidents and disasters due to human errors 	○	<ul style="list-style-type: none"> Prevention of accidents and disasters due to human errors (ongoing)
	4. Improve work safety	<ul style="list-style-type: none"> Promoting of safety activities (practiced Hazard prediction activities, pointing and calling, and 5S³ activities) Active improvement of work methods and work environment Implement application of similar process and examination of accident in the Group and other companies Preventing Accidents and Disasters among Middle-Aged and Elderly People Measures to prevent accidents by contacting dangerous areas, equipment etc. Review of factory standards for protective equipment and protective clothing for dangerous or harmful work 	○	<ul style="list-style-type: none"> Promoting of safety activities (practiced Hazard prediction activities, pointing and calling, and 5S³ activities) (ongoing) Active improvement of work methods and work environment (ongoing) Implement application of similar process and examination of accident in the Group and other companies (ongoing) Preventing Accidents and Disasters among Middle-Aged and Elderly People (ongoing) Promote measures to prevent dangerous area of equipment, contacting dangerous areas and equipment, exposure, falling, etc. Review of factory standards for protective equipment and protective clothing for dangerous or harmful work (ongoing) Improvement of risk sensitivity of managers in the workplace and their active involvement and awareness in "work safety improvement" activities.
	5. Review and reorganize work manuals and ensure strict compliance	<ul style="list-style-type: none"> Implement of planned review and content enhancement of work manual maintenance Confirm the compliance of work manuals Creation of a safe culture that complies with rules and manuals 	○	<ul style="list-style-type: none"> Implement of planned review and content enhancement of work manual maintenance (ongoing) Confirm the compliance of work manuals (ongoing) Creation of a safe culture that complies with rules and manuals (ongoing)
	6. Work risk assessment	<ul style="list-style-type: none"> Implement work risk assessment based on plans / Review of past risk assessments (Central Labor Accident Prevention Association⁴ method or procedure HAZOP⁵) Risk assessment as stipulated in the Industrial Safety and Health Act Risk assessment for dangerous and non-routine work at one's workplace 	○	<ul style="list-style-type: none"> Implement work risk assessment based on plans / Review of past risk assessments (ongoing) (Central Labor Accident Prevention Association⁴ method or procedure HAZOP⁵) (ongoing) Risk assessment as stipulated in the Industrial Safety and Health Act (ongoing) Risk assessment for dangerous and non-routine work at one's workplace (ongoing)
	7. Safety measures of construction and non-routine work	<ul style="list-style-type: none"> Clarification and solid performance of implementation matters such as construction start permission, safety management during construction, delivery, completion confirmation, etc. Providing hazard information of chemical substances in writing to construction contractors, thorough education of plant rules, etc. Establish factory rules and regulations for directly ordered construction work, and ensure that the ordering party fulfills its responsibility for construction management Clarify work instructions and procedures and implement hazard prediction activities for non-routine work 	○	<ul style="list-style-type: none"> Clarification of implementation matters such as construction start permission, safety management during construction, delivery, completion confirmation, etc., and reliable fulfillment of roles and responsibilities of construction orderers and construction contractors Thorough compliance with laws and regulations by the construction orderer and the construction contractor, and ensuring construction safety Clarify work instructions and procedures and implement hazard prediction activities for non-routine work (ongoing)
8. Training and drill promotion	<ul style="list-style-type: none"> Plan promotion of education and training Active participation in various safety seminars Promote acquisition of qualifications Active introduction of awards and prize systems for voluntary safety activities Implementation of planned training to acquire and improve important safety skills 	○	<ul style="list-style-type: none"> Plan promotion of education and training (ongoing) Active participation in various safety seminars (ongoing) Promote acquisition of qualifications (ongoing) Active introduction of awards and prize systems for voluntary safety activities (ongoing) Implementation of planned training to acquire and improve important safety skills(ongoing) 	
9. Ensuring subcontracting safety	<ul style="list-style-type: none"> Active involvement in safety management at companies to which, as a manufacturer, the Company outsources its operations Implementation of sufficient safety education 	○	<ul style="list-style-type: none"> Active involvement in safety management at companies to which, as a manufacturer, the Company outsources its operations (ongoing) Implementation of sufficient safety education for temporary and contract employees (ongoing) 	
Occupational health	1. Create and maintain a comfortable workplace environment	<ul style="list-style-type: none"> Realization of comfortable working environment Ensuring an appropriate and safe working environment Implementation of appropriate health management Appropriate reporting, communication, and consultation, as well as promotion of good communication 	○	<ul style="list-style-type: none"> Realization of comfortable working environment (ongoing) Ensuring an appropriate and safe working environment (ongoing) Implementation of appropriate health management (ongoing) Appropriate reporting, communication, and consultation, as well as promotion of good communication(ongoing)
	2. Promote physical and mental health wellbeing	<ul style="list-style-type: none"> Implement concrete guidance, etc. and effective utilization of health check results Appropriate compliance with additional inspection criteria due to regulatory amendments Promotion of specific activities to build mental and physical health Aggressive promotion and thorough implementation of preventive measures for COVID-19, etc. 	○	<ul style="list-style-type: none"> Implement concrete guidance, etc. and effective utilization of health check results (ongoing) Appropriate compliance with additional inspection criteria due to regulatory amendments of Industrial Safety and Health Law, etc. (ongoing) Promotion of specific activities to build mental and physical health (ongoing) Aggressive promotion and thorough implementation of preventive measures for COVID-19, etc.(ongoing)

1 PDCA cycle

One of the method to smoothly carry out management tasks such as production control and quality control in business activities. To improve business operating continually by repeating the four steps such as Plan (P) → Do (D) → Check (C) → Act (A).

2 MOC

Management of change

3 5S activities

It is the first letter "S" of five Japanese words for seiri seiton (organize and order things), seiso (cleaning), seiketsu (cleanliness), and shitsuke (bringing-up).

4 Central Labor Accident Prevention Association

A corporation for the purpose of public interest established in 1979 with the approval of the Minister of Labor (currently: Minister of Health, Labor and Welfare) under the Labor Accident Prevention Group Act. It aims to improve safety and health and to eliminate occupational accidents through promotion of voluntary occupational accident prevention activities by business owners.

5 HAZOP

Hazard and Operability Study. Standard process hazard analysis methods in the chemical process industry.

* Evaluation standards

○: Goal achieved ○: Goal basically achieved △: 50% achieved ×: Far from achieved