

RC Activity Results for FY2021 and Plan for FY2022

☆☆☆ : Achieved, ☆☆ : Mostly achieved, ☆ : Further efforts required

	RC Medium-term Plan 2023 (2021-2023) (◆Grow UP 2023 KPI; Other: RC target)	FY2021 RC Activity Plan	FY2021 RC Activity Results	Self-assessment	FY2022 RC Activity Plan
Occupational Health and Safety	<p>Aim to eliminate occupational injuries at the worksites of MGC and its partner companies. Visualize the factors that directly and indirectly affect occupational safety through various evaluation methods and build foundations for improvement.</p> <p>Quantitative occupational health and safety targets until 2023 ◆Serious occupational injuries*1: 0 Lost time injuries and non-lost time injuries requiring three or more doctor visits at MGC: 0 Cooperating company frequency rate: 0.3 or lower; Severity rate: 0.003 or lower</p>	<p>(1) Enhance day-to-day safety activities unique to each business site and make reliable responses.</p> <p>(2) Eliminate similar occupational injuries (respond to falling down, falling from a height, and falling down stairs etc.).</p> <p>(3) Implement measures to prevent human error (unsafe conduct).</p> <p>(4) Use the MGC Group Process Safety and Disaster Prevention Guidelines (culture of safety).</p> <p>(5) Implement safety activities through LINK activities.</p> <p>(6) Provide support to partner companies to eliminate occupational injuries.</p> <p>(7) Evaluate and improve workplace environments.</p>	<p>(1) Conducted day-to-day safety activities unique to each business site including 5S, near-miss incident identification activities, KY, workplace safety meetings, monthly campaigns with different themes, and training on past examples.</p> <p>(2) Created lists of sites with risk of falling down, falling from a height, and falling down stairs etc., improved facilities, posted signs, and implemented other safety measures.</p> <p>(3) Used training courses taught by outside instructors and measures to instill the pointing-and-calling occupational safety method to prevent human error.</p> <p>(4) Used the MGC Group Process Safety and Disaster Prevention Guidelines in RC audits, investigated the status of safety culture, and made improvements.</p> <p>(5) Held LINK Leaders Conferences in production, engineering, and research departments to share information on safety management procedures and best practices and promote safety.</p> <p>(6) Held accident-prevention and other conferences at partner companies to exchange information and made educational facilities available so that employees of partner companies can also undergo training.</p> <p>(7) Conducted health and sanitation evaluations and took measures to improve work environments.</p> <p>Results compared to quantitative targets through 2023</p> <ul style="list-style-type: none"> • Grow UP 2023 KPI (April 2021 - March 2022) Serious occupational injuries*1: 1 • Results compared to RC targets (January - December 2021) MGC Lost time injuries: 1 Non-lost time injuries: 1 Cooperating companies Frequency rate: 1.62 Severity rate: 0.027 	☆	<p>To achieve occupational health and safety and process safety and accident prevention targets, implement effective measures according to issues at each business site with the aims of safe work and stable operations, taking the following into consideration.</p> <p>(1) Self-initiated safety activities (2) Prevention of similar occupational injuries and human error (3) Support for reducing occupational injuries at partner companies (4) Voluntary safety measures (5) Improvement measures using the MGC Group Process Safety and Disaster Prevention Guidelines and evaluation tools such as MOSMS diagnoses (6) Achieve MGC smart factories and introduce new technologies. (7) Identify sources of safety and accident hazards and take measures to ensure safety (including natural disasters). (8) Education and training</p> <p>RC priority audit items</p> <ul style="list-style-type: none"> • Business site issues concerning occupational safety and accident prevention and status of measures for improvement • Status of responses to progressive natural disasters • Status of implementation of LINK activities at business sites • Status of measures to address occupational safety and accident prevention during loading and unloading work

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Process Safety and Accident Prevention	<p>Aim to eliminate accidents in the workplace. Visualize the factors that directly and indirectly affect process safety and accident prevention through various evaluation methods and build foundations for improvement.</p> <p>Quantitative process safety and accident prevention targets until 2023 ◆Serious accidents*2: 0 ICCA annual score: 0 (for both MGC and cooperating companies)</p>	<p>(1) Enhance facility management (specifically, comply with the Production Technology Division action plan).</p> <p>(2) Eliminate similar irregular events (respond to fire and leak incidents).</p> <p>(3) Systematically implement HAZOP for all manufacturing facilities as process risk assessment.</p> <p>(4) Use the MGC Group Process Safety and Disaster Prevention Guidelines (safety foundations).</p> <p>(5) Implement process safety and accident prevention measures through LINK activities.</p> <p>(6) Enhance safety training and learning.</p> <p>(7) Respond reliably to sudden natural disasters such as earthquakes, tsunamis, and ash fall and to ongoing disasters such as wind and flood damage based on the latest information.</p>	<p>(1) To create smart factories, held conferences with relevant parties and worked to improve safety management systems using the IoT.</p> <p>(2) Reconfirmed fire and leak countermeasures and prevented reoccurrence.</p> <p>(3) Invited outside instructors to conduct HAZOP training and trained HAZOP practitioners.</p> <p>(4) Used the MGC Group Process Safety and Disaster Prevention Guidelines in RC audits, and evaluated safety and accident prevention measures.</p> <p>(5) Held LINK Leaders Conferences in production, engineering, and research departments to share information on safety management procedures and best practices and promote safety and accident prevention measures.</p> <p>(6) Introduced e-learning and used online seminars to continue training during the COVID-19 pandemic.</p> <p>(7) Obtained the latest hazard maps and started preparing timelines corresponding to ongoing disasters such as wind and flood damage.</p> <p>Results compared to quantitative targets through 2023</p> <ul style="list-style-type: none"> • Grow UP 2023 KPI (April 2021 - March 2022) • Serious accidents*2: 0 • Results compared to RC targets (January - December 2021) • ICCA score MGC: 1; cooperating companies: 3 	☆	* In fiscal 2022, we organized safety and accident prevention as well as occupational health and safety and prepared a plan. Consequently, the safety and accident prevention plan is included in the occupational health and safety mentioned above.

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Environmental Conservation	<p>Aim to protect the natural environment and contribute to communities through business activities. From those results, improve MGC's reputation in society.</p> <p>Qualitative and quantitative environmental conservation targets until 2023*</p> <p>(1) ◆Reduce greenhouse gas (GHG) emissions* by 28% compared to fiscal 2013 ◆Reduce GHG emissions intensity* by 19.9% compared to fiscal 2013 ① Continuously reduce emissions by 4,000 t-CO₂e/year ② Completely eliminate heavy oil used for in-house power generation and in boilers, etc. (Mizushima Plant, Yokkaichi Plant) ③ Reduce the GHG emissions coefficient for purchased electric power (0.45; Mizushima Plant) ◆④ Introduce 10% renewable energy to purchased electric power (all business sites)</p> <p>(2) Zero emissions of waste ◆*Waste zero emissions rate*³: 0.3% or less</p> <p>(3) Reduce releases of chemical substances subject to the Pollutant Release and Transfer Register system* by 10% compared to 2020</p> <p>(4) Water resource conservation *Water reuse rate: 95% or higher Identify water risk (domestic manufacturing sites)</p> <p>(5) Biodiversity conservation *“Bookcase for Biodiversity” donation program: Total of 10 instances *Establishment of “actual sites” of biodiversity: 1 installation</p>	<p>(1) Improve GHG emissions intensity and reduce emissions. (2) Reduce the final disposal of waste by encouraging recycling of waste, efficiently using waste as a resource, and taking other measures. (3) Promote reductions in chemical substances subject to the Pollutant Release and Transfer Register system. (4) Promote efficient use of water resources. (5) Promote identification of water risks at each business site. (6) Undertake biodiversity conservation. (7) Promote eco-friendly products. (8) Continuously improve environmental management system (EMS).</p>	<p>(1) Continuously implemented measures to reduce GHG emissions including introduction of high-efficiency equipment and review of production equipment operating conditions. (2) Reduced waste by sorting and collecting, recycling and selling waste, converting waste to fuel, and taking other measures. (3) Curtailed releases of chemical substances subject to the Pollutant Release and Transfer Register system by improving facilities and taking other measures. (4) Made efforts to efficiently use water resources by stable operations and reuse of water. (5) Investigated examples of water-related risks and opportunities and reflected the results in CDP water security questionnaires. (6) Donated “Bookcases for Biodiversity.” (7) Added MIRAFOAM[™] Λ (lambda) high heat insulation foamed plastic and DESLIME as certified eco-friendly products. (8) Checked environmental management systems through RC audits and confirmed that there are no problems.</p> <p>Results compared to quantitative targets through 2023</p> <ul style="list-style-type: none"> • Grow UP 2023 KPI (April 2021 – March 2022) Reduced greenhouse gas (GHG) emissions by 27% Reduced GHG emissions intensity by 13.1% Waste zero emissions rate: 0.27% • Results compared to RC targets (January – December 2021) Reduced releases of chemical substances subject to the Pollutant Release and Transfer Register Act by 10% Water reuse rate: 94% “Bookcase for Biodiversity” donation program: 2 instances Establishment of “actual sites” of biodiversity: 0 installations 	☆☆	<p>Implement various measures to achieve the Grow UP 2023 KPI and the environmental preservation targets for the following items.</p> <p>(1) Measures to address global environmental issues GHG emissions reduction (including introduction of electric power with a low GHG emissions coefficient and renewable energy) Waste reduction Water resource conservation Biodiversity conservation</p> <p>(2) Measures to address local environmental issues Continuous improvement of factors that have an impact on the environment (air, water, noise, vibration, odors, PRTR, etc.)</p> <p>RC priority audit items</p> <ul style="list-style-type: none"> • Plan for achieving Grow UP 2023 KPI and targets relating to environmental conservation and status of improvement

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Chemical and Product Safety	<p>Clarify the properties and handling methods of chemicals and products to protect the safety and health of all handlers and the environment.</p> <p>Quantitative chemical and product safety targets until 2023**</p> <p>(1) Conduct phased safety evaluations in product development (ongoing) **Review new product launches and market development: 100% (percentage of products)</p> <p>(2) Promote risk assessment and risk management of handled products (ongoing) **Product safety training: 100% (percentage of members of the MGC Group Environment and Safety Council)</p> <p>(3) Ensure that applications and registrations are carried out in accordance with the chemical substance management laws and regulations of each country **Chemical substance registrations under the systems for management of chemical substances in each country: 100% (percentage of products)</p> <p>(4) Operation and deployment of automated SDS production system **Preparation and delivery of safety information (SDS): 100% (percentage of products)</p>	<p>(1)-1. Evaluate the safety of developed substances and products (new substance application, classification of hazardousness, preparation of safety information, risk assessment).</p> <p>(1)-2. Review new product launches and market development.</p> <p>(2)-1. Respond to priority assessment chemical substances under the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.</p> <p>(2)-2. Conduct training on laws and regulations applicable to products handled and safety.</p> <p>(3)-1. Japan, U.S., and China: Submit chemical substance applications and notifications.</p> <p>(3)-2. Europe, U.K., South Korea, Turkey: Register chemical substances, importers, etc. and organize and update registration information.</p> <p>(3)-3. Taiwan, Thailand, and Vietnam: Investigate chemical substances to be registered, importers, etc.</p> <p>(3)-4. Gather information on the chemical substance management laws and regulations of each country and perform procedures under registration systems.</p> <p>(4)-1. Optimize statements in major foreign language versions of SDS.</p> <p>(4)-2. Build mechanisms that enable affiliated companies to use SDS production systems.</p>	<p>(1) Evaluated the safety of developed substances and products and reviewed product launches and market development.</p> <p>(2) Provided information on substances that are under assessment under the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Prepared materials for e-learning about laws and regulations applicable to handled chemical products and safety and trained employees.</p> <p>(3) Filed notifications in Japan under the Industrial Safety and Health Act and made notifications pursuant to overseas chemical substance registration systems.</p> <p>(4) Reviewed foreign language versions of SDS and started preparation of SDS for affiliated companies.</p>	☆☆☆	<p>To achieve chemical and product safety targets, perform voluntary chemical management while responding appropriately to international management mechanisms.</p> <p>(1) Evaluate the safety of developed substances and products through various investigations.</p> <p>(2) Respond appropriately to amendments of laws applicable to handled products.</p> <p>(3) Conduct safety training on handled chemical substances.</p> <p>(4) Gather information on the chemical substance management laws and regulations of each country and perform procedures under registration systems.</p> <p>(5) Use SDS production systems adapted to the laws and regulations of Japan and other countries and properly deliver SDS to customers.</p>

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Safe Transport and Storage of Chemicals	Aim to develop an improved reputation among stakeholders and build trust.	<ul style="list-style-type: none"> (1) Regularly analyze problems that occur when transporting and storing chemicals, and distribute results to all relevant workplaces. (2) Share information on the safe transport and storage of chemicals with the logistics departments of group companies. (3) Promote the conclusion security agreements relating to handling work at final destinations. 	<ul style="list-style-type: none"> (1) Gathered and analyzed information on problems and distributed the results. (2) Provided information to the logistics departments of group companies and shared information. (3) Promoted the conclusion of security agreements. 	☆☆☆	<p>To achieve logistics safety targets, take the following items into consideration and establish safety management systems without omissions.</p> <ul style="list-style-type: none"> (1) Analysis of logistics accidents, occupational injuries, etc. (2) Occupational safety and accident prevention during loading and unloading (3) Reinforcement of dialogue with Group logistics companies through audits and questionnaires (4) Increasing the rate of security agreement conclusion
Stakeholder Relations	Aim to promote environmental and safety activities across the entire MGC Group. Reinforce communications within the Group and promote security, process safety and disaster prevention, and environmental management.	<ul style="list-style-type: none"> (1) Expand and improve corporate reports and websites. (2) Encourage the issuance of business site environmental and safety reports. (3) Undergo external evaluations. (4) Expand opportunities for dialogue including RC regional dialogues and tours. 	<ul style="list-style-type: none"> (1) Issued the Corporate Report 2021. (2) Issued business site environmental and safety reports. (3) Underwent external ISO 14001 evaluation and received third-party GHG verification. (4) Expanded opportunities for dialogue by conducting RC regional dialogue meetings and plant tours and participating in regional events. 	☆☆☆	<p>To achieve targets for dialogue with society, implement the following items.</p> <ul style="list-style-type: none"> (1) Expand and improve integrated reports, business site environmental and safety reports, and website. (2) Expand opportunities for dialogue including RC regional dialogues and tours. (3) Undergo external evaluations.

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Responsible Care Initiatives and Management	Aim to promote environmental and safety activities across the entire MGC Group. Reinforce communications within the Group and promote security, process safety and disaster prevention, and environmental management.	(1) Reinforce communications through the MGC Group Environment and Safety Council, liaison committees, and other bodies. (2) Enhance systems for sharing information on Group accidents and injuries and distribute information to Group companies. (3) Perform evaluations and make improvements in accordance with the MGC Group Process Safety and Disaster Prevention Guidelines. (4) Implement Group environmental conservation measures.	(1) Shared information through the MGC Group Environment and Safety Council, audits, and liaison committees of relevant personnel. (2) Revised procedures for sharing information with Group companies concerning accidents and occupational injuries. (3) Performed evaluations in accordance with the MGC Group Process Safety and Disaster Prevention Guidelines. (4) Supported environmental conservation measures by individual Group companies through the MGC Group Environment and Safety Council, audits, and liaison committees of relevant personnel.	☆☆☆	Conduct environmental, safety, and disaster preparedness measures with a sense of unity by sharing information on MGC Group accidents and injuries and through the MGC Group Environment and Safety Council and MGC Group environmental and safety audits.
	Make continuous improvements to responsible care management systems.	(1) Continuously improve RC management systems through collaboration among company and business site organizations.	(1) Reached out to each MGC business site through Environment and Safety Office Managers Meetings, LINK activities, and other means.		Continuously improve RC management systems through environment and safety meetings, Environment and Safety Office Managers Meetings, RC audits, and other means and develop human resources through RC activities.

*1 Disability eligible for, or possibly eligible for disability compensation involving lost work accidents, fatal accidents and accidents resulting in permanent inability to work, and those involving four or more lost work days

*2 Accidents and major workplace accidents which threaten third parties, including localized environmental pollution and accidents affecting local residents

*3 Final disposal of waste/waste generated