## **Targets and Results**

JSR Group sets targets regarding specific action items of priority issues and review our activities on every FY. Begining in FY2017,we will evaluate ourselves in accordance with the Mid-Term CSR Plan. The following report describes the main activities and their results in FY2016.

FY: Fiscal Year means the year ending March 31. For example, FY2016 means April 1,2016 - March 31,2017

Assessment ©: Better than planned O: As planned A: Improvement needed —: New item for this FY

Social Issues Attributable to JSR Group's Corporate Activity	FY2016 Target	FY2016 Result	Assessment	FY2017 Target	Related SDGs
Health and safety initiatives	Implement preliminary environmental and safety assessments     Reviewed and began operation of modification control and preliminary safety assessment	Reviewed preparations for preliminary safety assessment (minor modification, periodic maintenance, etc.) and began operation as a company-wide procedure	0	Verify effects of procedures reviewed in FY2016 and establish their operation	4 GUALITY BUCATION 8 RECENT HODE AND ECONOMIC GROWTH
	Zero facility accidents and zero serious workplace accidents     Reform and rebuild the safety foundation (equipment, organization, and systems)     Reestablish a safety culture (emotion, behavior, culture)     Identify and improve measures for potentially dangerous equipment that could lead to serious workplace accident	\(\text{Accidents}\) \text{Facility accidents: 1 JSR accident, 0 Group accidents Workplace accidents (requiring time off work): 0 JSR accidents, 2 Group accidents \(\text{Safety foundation}\) \(-\text{Completed countermeasures for facilities with the high potential of causing serious industrial accidents (catching, falls, etc.) (including the Group) \(-\text{Formed information on in-house and outside accidents into a database and shared it, created new accident investigation methods, and prepared a collection of accident case studies \(-\text{Developed an education and training system to strengthen the transfer of technologies in manufacturing departments} \(-\text{Fully introduced HAZOP** to all business establishments and began new identification of hazards}\) \(\text{Safety culture}\) \(-\text{Established the "Basic Philosophy for Occupational Health and Safety" and continued efforts to spread safety values through manager education} \(-\text{Raised motivation by holding a Safety and Health Activity Forum and improving the personnel evaluation system} \(-\text{Established and tested evaluation methods to ascertain safety culture level}\)	Δ	Zero facility accidents and zero serious workplace accidents     ⟨Safety foundation⟩     Put new accident investigation methods into full-scale operation and provide education by using the collection of accident case studies     Start education and training systems in manufacturing departments to strengthen the transfer of technologies     Develop education and training systems for managers and full-time staff     ⟨Safety culture⟩     Continue current efforts to spread safety values     Implement activities to eradicate unsafe behavior     Systematically identify hazards using HAZOP and expand HAZOP to Group companies	
	Renew certifications on security-related laws and regulations	<ul> <li>Maintained certifications and compliance with high-pressure gas safety regulations and renewed these certifications: Chiba Plant (March 2017)</li> <li>Recertified certification as a Class 1 Pressure Vessel: Kashima Plant (January 2017)</li> <li>Renewed certifications regarding dangerous goods completion inspections: No recertification's required</li> </ul>	0	Maintain and renew certifications on security-related laws and regulations     Renew certification as a Class 1 Pressure Vessel: Yokkaichi Plant (in November 2017 or later)     Renew certifications regarding dangerous goods completion inspection: Chiba Plant (June 2017)	
	Continue auditing methods that were reviewed in FY2015     Improve audit precision by expanding number of audited departments	Expanded the number of audited worksites by adding departments having worksites to departments in charge of facility safety the previous year, and expanded audits to domestic Group companies (JSR and JSR Group companies: 9 companies, 13 locations)     Shared issues of each business establishment and reflected them on safety activities for the next FY	0	Implement audits with greater attention to process safety     Expand the number of audited departments to include overseas JSR Group companies	
	Achieve 1% average annual reduction in per-unit energy consumption in line with the Energy Conservation Act	Promoted project activities to conserve energy and resources throughout the company; however, target was not achieved, as the most recent per-unit energy consumption showed a 2.9% year-on-year increase	Δ	Achieve 1% average annual reduction in per-unit energy consumption in line with the Energy Conservation Act	13 COMMITE TO GLANINGER TO GLANINGER TO GLANINGER AND PRODUCTION AND PRODUCTION TO GLANINGER TO GLANINGER AND PRODUCTION AND GLANINGER TO GLANINGER
Climate change mitigation	Continue focusing on energy conservation activities to achieve targets in reduction of CO <sub>2</sub> emissions  Consider review of mid-term CO <sub>2</sub> reduction targets in accordance with trends and changes in government CO <sub>2</sub> reduction targets	• Continued safe operation of natural gas turbine cogeneration facilities. Exceeded our FY2016 goal of a 6% reduction in total CO <sub>2</sub> emissions from all 3 plants with an actual reduction of 65,000 tons, or a 9.0% reduction over FY1990 levels	0	Promote efforts for reductions with attention to government goals	
	Calculate greenhouse gas emissions (Scope 1, 2 and 3) throughout the supply chain and continue disclosure of this information via the CSR report	Calculated greenhouse gas emissions (Scope 1, 2 and 3) throughout the supply chain and continued disclosure of this information via the CSR report	0	Calculate greenhouse gas emissions (Scope 1, 2 and 3) throughout the supply chain and continue disclosure of this information via the CSR report	
Environmental impact reduction	Maintain and renew ISO14001 certification     Continuas preparation corresponding to revisions of ISO14001 certification(revised in September 2015)	Continued to pass ISO14001 evaluation at our 3 plants     Promoted preparation corresponding to 2015 edition of ISO14001 certification.	0	Shift to 2015 edition of IS014001 certification	3 GOODMAIN  3 AND WILLIERS  12 RESPONDER  AND WILLIERS  AN
	FY2016 VOCs*2 reduction target     Continue and improve reduction of VOC levels by 75% over FY2000 levels	Reduced VOCs emissions by 76% over FY2000 levels through continuance of stable operation of RTO*3 installed in the 3 JSR plants	0	VOCs Reduction Target: Maintain 75% reduction in VOC levels over FY2000 levels	
	Conduct activities to improve local environments	Maintained reliable and stable functionality of environmental equipment and maintained current status of zero environmental complaints for FY2016	0	Ensure reliable and stable functionality of environmental equipment and maintain current status of zero environmental complaints	
	Conduct safety and environment audits	Conducted safety and environment audits on JSR and domestic group companies (9 companies, 13 locations)	0	Review audit methods to bring improved environmental performance and conduct safety and environment audits	
Waste reduction	Reduce industrial waste	Reached zero waste targets for industrial waste from FY2003 through FY2016 (0 tons of waste going to landfills) through systematic initiatives at all plants including strict waste reduction and separation efforts as well as searching for suitable recyclers	0	Continue current efforts	6 AND SANTANEON  TO AND SANTANEON  12 DESCRIPTION  AND PRODUCTION  CONTROL  13 CLIMATE  13 CLIMATE  14 ACTION
Water resources conservation	Promote reduction of wastewater emission and stabilization of wastewater treatment Promote initiatives to improve water resource management (maintain current level of water recirculation and reuse)	Ensured proper wastewater management in all plants (COD*4, total nitrogen, total phosphorus). Continued to stabilize wastewater management and improved water quality. Complied with the seventh series of standards and regulations on total amounts	0	Promote reduction of wastewater emission and stabilization of wastewater treatment Promote initiatives to improve water resource management (maintain current level of water recirculation and reuse)	6 GLIANMATER  MADAMITATION  TO MADAMITATION  TO MADAMITATION  TO MADAMITATION  AND MADAMITATION  TO M

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Social Issues Attributable to JSR Group's Corporate Activity	FY2016 Target	FY2016 Result	Assessment	FY2017 Target	Related SDGs
Labor environment	Promote measures for greater awareness of work-life management	<ul> <li>Conducted rank appropriate training for leader class and subleader class employees</li> <li>Disclosed overtime status (monthly)</li> <li>Conducted awareness surveys in regards to overtime</li> <li>Conducted employee awareness surveys (once every 3 years)</li> </ul>	0	Continue current efforts	8 DECENT WORK AND ADDRESS TO SECOND HELD WITH BOTH AND ADDRESS TO SECOND HELD WITH BOTH ADDRESS TO
Diversity	Execute concrete measures and achieve quantitative targets for diversification of human resources	Percentage of female employees hired in April, 2017 [JSR]: College graduates hired for technical positions, 20% (target: 15-20%) College graduates hired for general office positions, 50% (target: 40-50%) Percentage of females in management positions as of April, 2017 [JSR]: 3.8% (target: 8%)	0	Continue current efforts	5 GENGER 8 DECENT WORK AND CHINANG GROWTH
	Diversify recruitment	Percentage of employees with disabilities [JSR]: 2.2% (statutory employment rate: 2%)     Foreign national employees recruited [JSR]: 9 (hired from FY2014 to FY2016)     Held a cross-cultural communication workshop	0		10 NEDICED SECURITIES
	Advance corporate culture	Continued communication-building activities at each office/workplace	0		
Human rights	Improve awareness of corporate ethics and revision of JSR Group Principles of Corporate Ethics as necessary	<ul> <li>Implemented corporate ethics e-learning program</li> <li>Conducted corporate ethics training that included the topics of sexual harassment and power harassment for new employees and new management employees</li> <li>Continued to confirm age at new hiring (legal compliance)</li> </ul>	0	Continue current efforts	10 NERHOLD NORMAN STATE THE NEW MORE AND
Supply chain management	Expand CSR/sustainable procurement*5	Continued implementation of CSR surveys of new suppliers	0	Expand CSR/sustainable procurement	8 DECEMBENCATION AND 12 DESPONSIBLE CONCEMPTION AND PRODUCTION
	Maintain green procurement*6     Promote activities focusing on collaboration among the supply chain	<ul> <li>Practiced green procurement based on JSR Green Procurement Guidelines</li> <li>Provided MSDS Plus*7</li> </ul>	0	Promote activities focusing on collaboration among the supply chain	15 OFF ON LIND
Communication with communities and society	Utilize the UN Global Compact (GC) network     Participate in the Consortium for Sustainable Paper Usage     Continue JBIB*8 activities	Acted as a member of the Supply Chain Subcommittee for the GC Network Japan and the Corruption Prevention Subcommittee     Acted as a member in the Consortium for Sustainable Paper Usage     Held activities performed by the JBIB Natural Capital Management Working Group Hiring of JBIB auditors	0	Utilize the UN Global Compact (GC) network     Participate in the Consortium for Sustainable Paper Usag	
	Promote social contribution programs	<ul> <li>Provided science classes for elementary and middle school students in collaboration with educational institutions, private-sector training for teachers, and continued the Table for Two program*9</li> <li>Conducted communication exchange with residents in local areas where our facilities are located including overseas offices and plants Participated in local clean-up activities, and developed opportunities to engage in dialogue</li> </ul>	0	Promote social contribution activities that highlight JSR Group's sustainable orientation (continue visiting lessons and lectures, etc.) Continue communication with local communities, including plant neighbors, with the aim of being a	A DIMITY AS DISSABITORS
	Cooperate with the International Center for Environmental Technology Transfer (ICETT)	<ul> <li>Although no requests for training were received from ICETT in FY2016, cooperated with the "Japan-China Youth Exchange Program" under the Ministry of Foreign Affairs' "Japan-China International Afforestation Project" and supported the training of environment and safety technicians</li> </ul>	0	manufacturer that is trusted by the community	4 EDUCATION II AND COMMUNITIES
	Promote communication using green areas that help conserve biological diversity	Yokkaichi Plant: Held nature tours for employees and their children     Chiba Plant: Grew shiitake mushrooms using wood from green space forest thinning     Kashima Plant: Exterminated invasive plants and conducted wildlife monitoring     Tsukuba Research Laboratories: Conducted wildlife monitoring, provided environmental education for employees, and exterminated invasive species	0	Continue current efforts	
	Create and distribute marketing materials to promote the "Mirai no kigen (Origin of the Future)" TV program	Distributed marketing materials during student recruitment and at universities hosting program filming     Placed text advertisement on Shinkansen trains	0	Continue current efforts	
Communication with shareholders and investors	Release information through various media	Released information about the group that is easy to understand in a timely manner including such examples as the Information for Investors section of the website, annual reports, and the "JSR Throughout Society" booklet	0		40 KSPAGRE 47 REPORTER
	Communicate bi-directionally with shareholders and investors	Held quarterly financial briefing, annual management policy briefing, and seminars for institutional investors and analysts     Participated in domestic and overseas conferences	0	Continue current efforts	12 ORGANITION 17 FOR THE COLUS
	Conduct shareholder meetings that encourage relationship-building	Released meeting announcements schedules earlier and more frequently and avoided conflict with other shareholder meetings Enriched briefings of business overviews and product introductions at venues	0		

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Social Issues that JSR Group Can Help Resolve	FY2016 Target	FY2016 Result	Assessment	FY2017 Target	Related SDGs
Health and longevity	Contribute to the promotion of changing perspective from treatment to prevention and personalized medicine through the Life Sciences Business	Prepared the organizational structure for the bioprocess and diagnostic & research reagents business; newly established the Life Sciences Division; began integrated management that includes overseas bases with appointment of an American division manager	0	Contribute to the promotion of changing perspective from treatment to prevention and personalized medicine through the Life Sciences Business	3 GOOD HEALTH  17 PRINCESSES
Eco-friendly products	Engage in activities to reduce environmental impact by incorporating LCA*10	Estimated the CO <sub>2</sub> emissions from new and alternative products starting from the development phase through the incorporation of LCA (LCA processes are used during the manufacturing phase of 104 products)	0	Continue analysis/discussion of feasibility of activities to reduce the environmental impact utilizing LCI*11 data	7 APPRICABLEARS 9 ROUSTY ANNATOR AND NATURAL CORE
	Create evaluation indicators for eco-friendly products	Continued development of eco-friendly products (development of new grades)	0	Set new targets for eco-friendly products during FY2017	13 GENERAL ACTION

Basic Issues in JSR Group's Corporate Activity	FY2016 Target	FY2016 Result	Assessment	FY2017 Target	Related SDGs
Responsible Care: Quality and Product Safety	Increase the number of divisions that operate in accordance with ISO 9001 specifications     Improve compliance of specific headquarter offices	Trained internal ISO 9001 auditors and placed certified auditors in all departments Continued to pass ISO 9001 evaluations at our 3 plants	0	Improve relevancy of customer-oriented business strategies	
	Implement Fifth Quality Performance Review as well as external and internal quality audits	Implemented Fifth Quality Performance Review as well as external and internal quality audits	0	Implement Sixth Quality Performance Review as well as external and internal quality audits	O DECENT WORK AND
	Continuous improvement of product quality     Improve awareness and increase audit opportunities throughout the Group	Implemented activities to raise awareness and conducted six special audits throughout the Group, including new group companies	0	Provide outline of company-wide guidelines and support for new production bases and production transfers	8 RECENT WORK AND COMMITC GROWTH 10 REQUALITIES
	Provide safety and environmental information related to products to customers	Provided proper information on prototypes and products to customers by utilizing the SDS*12 electronic management system     Held sales agency conference hosted by the Petrochemicals Business Division	0	Provide environmental and safety information to customers	13 CLIMATE ACTION
	Strengthen chemical substance management     Ensure compliance with GHS*13     Continue to label product and provide SDS based on GHS in compliance with regulations	Promoted labeling of product shipped domestically in compliance with Industrial Safety and Health Act. Promoted application of SDS in GHS as according to plan     Ensured compliance with the GHS legislation of export destinations	0	Continue to label products and provide SDS based on GHS in compliance with regulations     Comply timely with GHS in accordance with laws and regulations of each export destination	
	Ensure compliance with European REACH*14 and CLP*15     Comply timely with GHS in accordance with laws and regulations of each country of export	Transferred necessary information for REACH compliance and confirmed registration status of raw materials	0	Respond to new overseas laws and legislations such as the US's revised TSCA*16 as well as the EU's REACH.	
	Conduct corporate ethics awareness surveys	Conducted corporate ethics awareness surveys and followed up at domestic and overseas offices	0	Continue corporate ethics awareness surveys	5 GENDER 10 REDUCED INEQUALITIES
Compliance	Improve awareness of corporate ethics and revision of JSR Group Principles of Corporate Ethics as necessary	Implemented corporate ethics e-learning program     Conducted corporate ethics training for new employees and new management employees     Conducted CSR Explanatory Briefings (4 domestic bases, 4 overseas bases)	0	Continue improving awareness of corporate ethics and revision of JSR Group Principles of Corporate Ethics as necessary	<b>©</b> (=)
	Improve level of legal compliance	Confirmed periodic legal compliance verification at domestic and overseas offices     Held legal compliance seminars	0	Improve level of legal compliance	16 Austracions Notificials  17 Autracoors 17 For the Goals
Corporate governance	Promote activities of the four committees (corporate ethics, RC, risk management, social contribution)	Continued to perform activities of the four committees according to plan     Continued response to the Corporate Governance Code     Conducted CSR awareness-raising activities that have been integrated with The JSR Group's Essential Elements	0	Continue response to the Corporate Governance Code	16 PLACE_JUSTICE  17 PATTERSORPS  NOTITIVE SOLUTION  17 PATTERSORPS  P
Risk management	Systematic operation of JSR group company-wide risk management system     Maintenance of the JSR Group risk management system for domestic group companies     Lower risk through enhanced PDCA management	Began full-scale use of risk assessment criteria that were reviewed in FY2015	0	Continue strengthening risk identification to reduce risk     Begin monitoring of departmental risks	
	Reinforce crisis management     Improve BCP*17     Continue implementation and improvement of crisis management training (initial response training and BCP training)	Completed implementation of strategies to resolve challenges discovered through crisis management drill conducted in FY2015 Conducted crisis management drill in anticipation of a Tonankai Earthquake; currently implementing measures to resolve challenges identified by this drill Conducted "information incident" drill in anticipation of an information leak; currently implementing measures to resolve challenges identified by this drill	0	Support BCP formulation by Group companies     Strengthene headquarters' crisis management drill	11 SECTIONAL CITES  A SECTION OF THE SEC
	Conduct CSR awareness-raising activities, including in overseas offices and plants	Held CSR Explanatory Briefings (4 domestic bases, 4 overseas bases)     Held annual CSR report presentation meetings	0	Continue CSR awareness-raising activities	
	Promote measures for large-scale earthquake countermeasures according to the mid-term plan	Implemented measures in accordance with the seismic reinforcement plan     (Continued reinforcement work at the Yokkaichi Plant; completed work at the Chiba Plant; prepared a reinforcement plan based on seismic reassessment at the Kashima Plant)	0	Continue measures in accordance with the seismic reinforcement plan (Scheduled completion at the Yokkaichi Plant in FY2018 and at the Kashima Plant in FY2020)	

- \*1 HAZOP (Hazard and Operability Studies) safety inspection
   \*2 VOC = "Volatile Organic Compounds," which is a cause of air pollution
   \*3 RTO = Regenerative Thermal Oxidizer. A device used to burn VOCs and decompose them into CO<sub>2</sub> and water to create cleaner exhaust gases.
- \*4 COD = Chemical Oxygen Demand. This is the amount of oxygen required to oxidize oxidizable materials in water. This is one of the more common indicators of water quality.
- \*5 CSR/sustainable procurement is a system of procuring raw materials from suppliers that have demonstrated resolve to engage in environment protection as well as incorporating the social aspect into corporate ethics and employment activities.
- \*6 Green procurement is a system of procuring raw materials from suppliers that meet strict guidelines on the management of substances that have the potential to cause harm to human health.

  \*7 MSDS Plus = A basic information sheet used to provide downstream users with information on chemical substances in products. It was created by the Joint Article Management Promotion
- $^{*}8$  JBIB = Japan Business Initiative for Biodiversity.
- \*9 Table for Two = A social contribution program in which we, citizens of developed countries, and children of developing countries share meals together.
  \*10 LCA = Life Cycle Assessment. A method of quantitatively analyzing and assessing a product's environmental impact in all lifecycle stages, including raw materials, manufacturing, use, and disposal.

- \*11 LCI = Life Cycle Inventory. Sum of the input and output data of resource, energy, and environmental impact of products used for LCA.
  \*12 SDS = Safety Data Sheet. A sheet describing the safety information on chemical substances is attached when shipped to other operators.
  \*13 GHS = Globally Harmonized System Classification and Labeling of Chemicals. This system is designed to globally standardize classification, labeling and provision of SDS.
- \*14 REACH = Registration, Evaluation, Authorization and Restriction of Chemicals. This is a European Union regulation to provide safety test data on all chemical products that are manufactured or imported by an amount of at least 1 ton per year.
- \*15 CLP = Classification, Labeling and Packaging of Substances and Mixtures. This is a European Union regulation on defining the hazard classification of chemical substances and compounds, labeling and packaging on the basis of GHS.
- \*16 TSCA = The Toxic Substances Control Act of the United States. The act's purpose is to regulate chemical substances and mixtures that pose unreasonable risks to human health and the environment.
- \*17 BCP = Business Continuity Plan. BCP defines the planning of determination criteria and course of action plans to continue business operations in the event of emergencies or disasters and to continue or restore operations as quickly as possible after a major emergency event that could affect the existence of the company occurs such as largescale disasters, fires/explosions, terrorist attacks, etc. BCM defines the management system implemented to improve and operate the BCP through PDCA.

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