

## The Daicel Group's Responsible Care Targets and Results

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| Area                                   | Fiscal 2013 Targets  | 2013 Results  | Achievement rate* | Fiscal 2014 to Fiscal 2016 Targets   | Fiscal 2014 Targets   |
|--|--|---|-------------------|--|---|
| Environmental Preservation             | <ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> <li>Promote energy conservation to achieve fiscal 2020 targets set forth in Commitment to a Low Carbon Society.</li> </ul>  | <ul style="list-style-type: none"> <li>Reduced energy intensity by 3% from the previous fiscal year.</li> <li>Reduced CO<sub>2</sub> emissions by 4% year on year to 1.26 million tons. Promoted energy conservation in line with fiscal 2020 targets in the Commitment to a Low Carbon Society.</li> </ul>   | ○                 | <ul style="list-style-type: none"> <li>Reduce energy intensity by at least 1% year on year.</li> <li>Promote energy conservation to achieve fiscal 2020 targets set forth in Commitment to a Low Carbon Society.</li> </ul>  | Continue efforts to conserve energy in current processes and energy division (increase mixed fuel burning ratio for tires, energy-optimized operations at Aboshi Plant and Ohtake Plant), establish innovative energy-saving technologies (such as VRC).  |
|  | Prevent increase of landfill disposal of waste in order to achieve targets in the Keidanren Voluntary Action Plan on the Environment.  | Total emissions of industrial waste were reduced, but landfill waste disposal expanded owing to an increase in plastic that is difficult to recycle.  | ×                 | Reduce landfill disposal waste and achieve zero emissions at all business locations.   | Reduce difficult-to-recycle waste and promote reuse of resources.   |
| Process Safety and Disaster Prevention | Aim for zero accidents involving fire, explosions and leaks. (Finish implementing measures in notifications from Fire and Disaster Management Agency.)   | Small fires and leaks occurred, but there were no major accidents again this year.  | ○                 | <ul style="list-style-type: none"> <li>Achieve zero accidents involving fires, explosions and leaks.</li> <li>Continue efforts to enhance safety.</li> </ul>   | Comprehensively inspect processes and facilities for the risk of fire and explosion caused by autoreactivity, substances that are dangerous when mixed, and physical-chemical degradation.  |
|  | <ul style="list-style-type: none"> <li>Conduct risk assessments for earthquakes, tsunamis and liquefaction, and methodically improve anti-earthquake measures.</li> <li>Complete measures on schedule to install an emergency earthquake alert system, an employee's safety confirmation/emergency call system and satellite phones.</li> <li>Stockpile reserves of food, daily necessities and disaster equipment and materials as planned.</li> <li>Conduct Companywide disaster response drills in combination with on-site disaster drills.</li> </ul> | <ul style="list-style-type: none"> <li>Conducted risk assessments for earthquakes, tsunamis and liquefaction, and methodically improved anti-earthquake measures.</li> <li>Installed on schedule an emergency earthquake alert system, an employee's safety confirmation/emergency call system and satellite phones.</li> <li>Stockpiled reserves of food, daily necessities and disaster equipment and materials as planned.</li> <li>Conducted Companywide disaster response drills in combination with on-site disaster drills.</li> </ul> | ○                 | Strengthen responsiveness to large-scale wide-area disasters, such as a massive earthquake along the Nankai Trough.  | <ul style="list-style-type: none"> <li>Assess risk of earthquakes, tsunamis and ground liquefaction, and methodically make seismic improvements.</li> </ul>   |
| Occupational Health and Safety         | <ul style="list-style-type: none"> <li>Aim for zero occupational injuries</li> <li>Strengthen 3S (<i>seiri</i> (tidying), <i>seiton</i> (putting everything in order) and <i>seisou</i> (cleaning)), hazard prediction and crisis-identification activities, including at partner companies.</li> <li>Take measures to prevent similar accidents from occurring and prevent human errors.</li> </ul>   | Efforts were made to achieve the target of zero occupational injuries, but there was an increase in occupational injuries when non-regular work was performed. The number of occupational injuries increased by five to 19 incidents (requiring time off from work) compared with the previous fiscal year.   | ×                 | <ul style="list-style-type: none"> <li>Aim for zero occupational injuries.</li> <li>Strengthen 3S, hazard prediction and crisis-identification activities, including at partner companies.</li> <li>Improve education and training to increase risk awareness.</li> <li>Strengthen safety management structure for trial operations and construction.</li> </ul> | <ul style="list-style-type: none"> <li>Promote awareness and communications in the workplace by enhancing dialog through 3S, hazard prediction and crisis-identification activities.</li> <li>Create work procedure standards for both stable and unstable periods.</li> <li>Promote awareness during trial operations and construction work, and reinforce safety measures.</li> </ul> |
| Distribution Safety                    | <ul style="list-style-type: none"> <li>Aim for zero at-fault logistics accidents.</li> <li>Aim to halve logistics-related issues.</li> </ul>   | <ul style="list-style-type: none"> <li>Achieved zero at-fault logistics accidents.</li> <li>Overall improvement in logistics-related issues, but number was not halved.</li> </ul>  | △                 | <ul style="list-style-type: none"> <li>Aim for zero at-fault logistics accidents.</li> <li>Reduce logistics issues at partner companies (-30%/year compared with previous fiscal year).</li> </ul>   | Continue working to eliminate logistics issues through integrated management with safety assurance groups and product accident prevention groups.   |
|  | Continue to survey and examine new energy conservation items in logistics.   | Energy intensity was roughly the same as last year despite efforts including modal shift and round-trip use of containers.  | △                 | Achieve at least 1% energy conservation in logistics annually.   | Achieve at least 1% annualized energy savings in logistics by promoting modal shift and round-trip use of containers.   |
| Chemical and Product Safety            | Respond to REACH*1 regulations on schedule.  | Finished registering products (with shipments of 100 to 1,000 tons annually) by the May 2013 deadline.  | ○                 | Precisely respond to chemical substance regulations, such as REACH, in countries around the world.   | Prepare to register products (shipments of 1 to 100 tons annually) by the 2018 deadline.  |
|  | Aim to achieve medium-term target for 40% reduction in VOC emissions compared with the fiscal 2000 level.  | VOC emissions increased by 15 tons year on year, for a reduction of 29% compared with the fiscal 2000 level, short of the medium-term target.   | △                 | Reduce VOC emissions by 40% of the fiscal 2000 level.  | Reduce VOC emissions by optimizing operating conditions.  |
|  | Aim to reduce emissions of PRTR substances by 40% (medium-term target) compared with the fiscal 2001 level.  | Continuing from fiscal 2012, emissions of PRTR substances remained at least 40% lower than the fiscal 2001 level.   | ○                 | Set individual targets for each substance and work to reduce PRTR substances with high emissions.  | Set individual targets for each substance and work to reduce PRTR substances with high emissions.   |
| Dialog with Society                    | Report the outcome of Responsible Care activities taken by Group companies.  | Occupational safety and environmental performance data for Group companies was disclosed in the CSR Report 2013 and on Daicel's website.  | ○                 | Proactively provide information about the Daicel Group's CSR activities at various opportunities.  | Include in reports the guidance received from third-party assessors.  |

### → Other Group Company Responsible Care Targets and Results

| Area                                   | Fiscal 2013 Targets  | 2013 Results   | Achievement rate* | Fiscal 2014 to Fiscal 2016 Targets   | Fiscal 2014 Targets  |
|--|--|--|-------------------|--|--|
| Environmental Preservation             | Set target to reduce energy intensity by 1% or more from the previous fiscal year's level, including overseas Group companies.   | Did not reduce energy intensity by at least 1% year on year.   | ×                 | Reduce energy intensity by at least 1% year on year.   | Reduce energy intensity by at least 1% year on year by aiming to deploy production and process innovations across Group companies.   |
|  | <ul style="list-style-type: none"> <li>Avoid increase in landfill waste disposal volume.</li> <li>Continue 3R*2 activities for industrial waste.</li> </ul>  | Landfill disposal waste volume did not increase. Efforts focused on recycling and reusing waste plastic and waste solvent.   | ○                 | Reduce landfill disposal waste and achieve zero emissions.   | Promote 3R with crucial companies.   |
| Occupational Health and Safety         | <ul style="list-style-type: none"> <li>Promote 3S, hazard prediction and crisis-identification activities.</li> <li>Share occupational safety data among other Group companies, horizontally deploy these activities, and prevent similar accidents from occurring.</li> </ul> | Improvement seen in 3S, hazard prediction and crisis-identification activities. Worked to share and cross-deploy occupational injury information to prevent reoccurrence of similar accidents.                         | ○                 | <ul style="list-style-type: none"> <li>Promote 3S, hazard prediction and crisis-identification activities.</li> <li>Share and cross-deploy information about occupational injuries among other Group companies to prevent similar occupational injuries from happening.</li> </ul> | <ul style="list-style-type: none"> <li>Improve awareness and communications at workplaces by enhancing dialog through 3S, hazard prediction and crisis-identification activities.</li> <li>Aim to improve framework for cross-deploying information about occupational injuries at Group companies.</li> </ul> |
| Process Safety and Disaster Prevention | <ul style="list-style-type: none"> <li>Continue the administration of emergency response guidelines.</li> <li>Apply Total EHS Assessments to small-scale retrofitting plans and specification changes.</li> </ul>  | Updated organizational chart and ran disaster prevention drills in accordance with rules for emergency measures at each company. Confirmed implementation of Total EHS Assessment System for small-scale retrofitting. | ○                 | <ul style="list-style-type: none"> <li>Continue to administer in line with rules for emergency measures.</li> <li>Conduct Total EHS Assessment System for small-scale retrofitting and specification changes.</li> </ul>   | <ul style="list-style-type: none"> <li>Continue to administer in line with rules for emergency measures.</li> <li>Strengthen Total EHS Assessment System.</li> </ul>   |

\*Achievement rate: ○: 100 to 70%; △: 70 to 40%; ×: 40 to 0%

♂ What is...?

1) REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals is a European Union regulation that requires producers of chemical substances to register the chemical substances and provide data on their safety assessment, usage restrictions and usage authorizations.

2) 3R: This term refers to activities to reduce waste generation, reuse reusable resources and recycle resources.