

Risk Management

Basic Approach

Setting risk management (RM) as a crucial part of efforts to strengthen its corporate structure, the SMM Group established a risk management system (RMS) integrated across the entire Group.

Reflecting the lessons learned from the JCO criticality accident, the RMS is comprised of Six Principles* that include setting compliance as the foundation. We are convinced that cementing the RMS in place and ensuring that initiatives continue are essential for the continuation of our business. Furthermore, RM is positioned as an activity that all employees

are to pursue daily, following the lead of top management. Subsequently, we added the provision "We will strive to identify risks, prevent their occurrence, and if risks occur, minimize the effects" in the SMM Group Code of Conduct applicable to officers and staff, in order to ensure that RM initiatives serve as a guide for action.

* Six Principles: (1) Compliance is the foundation, (2) The organizational leader confronting the risk is the responsible party, (3) Awareness of risk must be shared among all parties involved, (4) Adopt an RM approach in daily work, (5) Recognize that risks can occur, and (6) Coordinate risk responses with other management systems

Risk Management Framework

The supervision of RM is carried out by the SMM president, who formulates RM policies every fiscal year.

RM frameworks, responses to the occurrence of risks, and other matters are prescribed by company-wide rules. Promotion and monitoring of RM across the SMM Group overall is performed by the RM Working Group under the CSR Committee. The RM Working Group has deliberations on outcomes and issues in RM initiatives and drafts of annual RM policy, manages RM plan progress, and engages in company-wide strengthening of risk awareness. An RM Promotion Officer is placed within each division of the company to promote RM within the division and its business sites.

In the RM of the SMM Group, the top management within each division and business site formulates an RM action plan for the fiscal year, taking into account conditions surrounding his/her organization, and engages in RM. Major risks that have been assessed and entered into databases are addressed to reduce the risks, in accordance with fiscal year plans and the PDCA cycle concept. The outcomes of actions are evaluated

and improvements are effected through further action. Drills that simulate emergencies are incorporated into plans, with evaluations of the drills used to strengthen the ability to respond to emergency situations. SMM has also constructed a Crisis Management Framework for preemptively addressing particularly major risks that carry the potential for serious damage and that must be dealt with by the SMM Group as a whole. Actions under the RMS include RM internal audits, revisions to approaches during Risk Awareness Month, and RM patrols, creating opportunities to discover newly apparent risks and risks that have not yet been addressed.

The SMM Safety & Environment Control Department assesses the operational status of RMS in divisions, at business sites, and at group companies, and offers support to these. To ensure that RM activities are effective, the department also conducts RM internal audit seminars and provides guidance for various forms of drills, while also managing meetings of the RM Working Group and of RM Promotion Officers.

process, and managerial errors and other factors can lead to supplying products that do not meet customer specifications, thereby causing considerable problems for customers or society. In particular, product incidents jeopardizing personal safety and inferior quality leading to recalls must be avoided.

Natural disasters

In preparation for large-scale earthquakes, the tsunamis they spark, torrential rains, heavy snowfalls, and other natural disasters, measures must be put in place that take into account the type of work, geography, climate, and other conditions peculiar to each business site. In recent years in particular, we have seen abnormal weather to an unprecedented degree, indicating that the effects of climate change must be taken into consideration.

Overseas risks

Overseas, the risk of terrorism or rioting is far higher than in Japan. Safe behavior at the personal level, the establishment of contact methods, security at business sites, evacuation drills, requests to the government for assistance, and other preparations must be made on a daily basis, with protection of the lives of employees stationed abroad and on business trips paramount.

Pandemics

Virulent influenza or other pandemics can be severe enough to make business inoperable. These cannot be dealt with in haphazard fashion; preparations for prevention and immediate response are important.

Others

Other risks include those originating from moral misconduct, fraudulent accounting, information leaks, human rights issues, and malpractice.

Principal Assumed Risks

Each organization that forms a unit of RM activity performs a review of risk registries as needed when changes occur, or regularly during Risk Awareness Month in September. Special attention is given to the risks noted below and to changes in these.

Environmental pollution

Environmental risks comprise the largest proportion of the overall risks facing the SMM Group. In addition to the mining and non-ferrous smelting and refining businesses, any type of plant must recognize that atmospheric, water and soil contamination, among other types of pollution, can be expected due to equipment breakdowns, human error in operation, natural disasters, or other causes of hazardous substance leaks. We must take sufficient measures to prevent human and environmental exposure to toxic chemicals and other substances.

Legal violations

Ignorance of legal requirements, insufficient awareness of compliance duties, etc. can cause legal violations. Violations that lead to the loss of certifications, as well as violations that may escalate into social issues, not only endanger the continuation of the business itself, but also invite damage to the social credibility of the SMM Group overall.

Occupational accidents

Safety mechanism deficiencies, unsafe behavior, operating errors, equipment defects, etc. can directly or indirectly cause employees to have accidents. Disasters can be particularly severe when explosions and fires occur.

Poor quality

Defects during the product development process or manufacturing

Principal Initiatives

Our RM policy for FY2017 proclaims, "Top management itself will take the lead to enhance communication at every level, properly assess and review risks, and consider and execute appropriate countermeasures and actions. 'Execution of back-to-roots risk management.'" In order for top management to effectively take action against unnoticed risks and risks involving people, communication in the workplace is indispensable. Working from the meaning of the Six Principles, we place particular importance on compliance and seek to engage in management with our feet firmly on the ground.

Release of RM guidelines

To promote top management-led RM, in October 2016 we released RM Guidelines aimed at business site general managers. The guidelines cover overall business activities and address risks that call for attention. They indicate key points in management that are specific to each risk item, along with case studies of note, to enable the pursuit of RM without bias toward the business site general manager's individual concerns or areas of ability.

Responding to natural disaster risks

Based on a hazard map distributed to all business sites in 2015, we are studying site-specific measures matched to expected degrees of damage from earthquakes, tsunamis, floods, liquefaction, landslides, volcanic eruptions, and other disasters. At the same time, we continue to expand equipment and facilities for emergency response.

Implementing drills

In responding to the occurrence of risks, established procedures are meaningless if they cannot be executed. At each of our business sites we actively engage in and further improvise drills that simulate the occurrence of emergencies and crises such as environmental accidents,

fires, earthquakes, and pandemics. In the past, drills primarily consisted of hands-on, in-service drills conducted in line with scenarios and response procedures. In recent years, however, we perform workshop-based drills that present participants with issues to be addressed, and "blind scenario" drills that hide the direction the simulated situation will take in order to test instantaneous response capabilities. We strengthen response capabilities by resolving the problems and issues that are revealed by the drills. Each business site can select a form of drills applicable to its objectives, while the SMM Safety & Environment Control Department holds drill planning skills development courses to elevate the level of drills.

Risk Communication Training

Effective RM is built upon a foundation of communication. When the top management of business sites is unaware of actual conditions in the workplace or of employees' real feelings, even unthinkable situations can come about. This training has been held twice per year since March 2015 to let members of top management take another look at the state of their own communication with workplaces. Drawing on this training, new communication is occurring between business site general managers and their subordinates.

RMS adoption at overseas business sites

At overseas business sites that have completed the adoption of RMS, we used educational materials from RM internal audit seminars to promote thorough awareness. RMS at new overseas business sites focuses on business divisions under the sites' jurisdiction. With the support of overseas group businesses that have already adopted RMS, adoption is moving forward. At present, we are engaged in RM with a focus on overseas business site general managers and employees stationed abroad. We hope to further instill RM through means that include the active participation of locally hired employees.



Mine rescue drill at the Hishikari Mine



Firefighting drill at the Mie Plant of Sumitomo Metal Mining Siporex Co., Ltd.



Metal sales-related business continuity drill conducted jointly by the Osaka Branch, Nagoya Branch, and Head Office

Issues and Targets

Prevention of industrial accidents

Each business site of the SMM Group conducts operations that have a variety of chemical solutions and gases, petroleum products, intermediates, mining sediments, wastes, and other materials as a part of its business processes. Occupational accidents caused by the leakage of these must be prevented at all cost. The damage that accidents can wreak on the environment and their effects are also incalculable. To ensure that a situation like the JCO criticality accident never happens again, the prevention of industrial accidents is a goal that must always be met. Toward that end, before the start of a project we carry out risk assessments of facilities and equipment that pose the risk of serious industrial accident, and report the results of the assessments to the overseeing heads of operational divisions, together with emergency response plans. In the area of maintenance, we engage in activities with an emphasis on the improvement of management and on education and training, while strengthening and upgrading facilities.

Review of business continuity planning (BCP)

In recent years, damage resulting from natural disasters has become notably more severe. In the event of unavoidable damage due to a disaster, we cannot satisfy customers and meet their expectations if we do not restart suspended core businesses as quickly as possible. For that reason, we will not only rely upon our own restoration activities and those of suppliers to restart business, but will also formulate and revise BCP to hasten restoration, including the adoption of emergency alternate measures such as temporary relocation of business sites.

Strengthening overseas crisis management

Risks even greater than process risks are present overseas, including terrorism, kidnapping, and other external risks that threaten personal safety. To counter these, it is paramount that we take preventive measures, including everyday safe behavior. We conduct repeated crisis situation response drills through domestic and overseas cooperation, while maintaining and improving preparations for crises, as we work to further shore up the assurance of safety.