

Eliminating Serious Accidents

— Lessons learnt from the Yokkaichi Plant accident —

Our Seventh Stakeholders' Meeting

We hold stakeholders' meetings in order to objectively evaluate our activities and take on board feedback from outside experts regarding our CSR activities.

This year we held our seventh stakeholders' meeting. The meeting focused on lessons learnt from the accident at our Yokkaichi Plant in 2014, based on the theme of initiatives to eradicate serious accidents. It was attended by a number of experts with extensive knowledge in the field of occupational safety and health.



- **Date** Wednesday, February 24, 2016, 15:00-18:00
- **Venue** Meeting Room, JA Building (Otemachi, Tokyo)
- **Participants from the Mitsubishi Materials Group**
- Osamu Iida** Managing Director
President, Metals Company,
Safety & Health, Corporate Production Engineering
- Hiroshi Kondo** Senior Executive Officer
General Manager, Mineral Resources & Recycling Business Unit,
Environment & CSR
- Hikaru Kimura** Senior Executive Officer
General Affairs, Human Resources, Safety & Health
- Masato Koide** General Manager, Safety & Health Department
- Ryuichi Hasegawa** General Manager, Corporate Production Engineering Department
- Shingo Terasawa** General Manager, Occupational Safety & Health Department,
Safety & Health Department
- Masayuki Tebakari** Assistant to the General Manager, Corporate Strategy Department
- Yoshio Matsuno** General Manager, Environment & CSR Department (Secretariat)
* The names of departments and titles are as of the date of the meeting.
- **Facilitator**
- Daisuke Goto** Representative Director, ideaship Inc.

Measures are important from the point of view of both mankind and machine High hopes for education to improve risk sensitivity

Masayoshi Nakamura

Professor, Tokyo Institute of Technology,
Graduate School of Innovation Management

Mitsubishi Materials' initiatives are deserving of praise in the following three areas. Firstly, the company rigorously investigates the causes of accidents, and then translates that into concrete measures. Secondly, the company has defined and set clear targets for eliminating accidents at an achievable level, based on achieving zero accidents resulting in four or more lost days. Thirdly, the company has a clear focus on safety education. In particular, I think that the establishment of an Occupational Safety and Health Education Center is an outstanding initiative.



It is essential to implement safety measures from a dual perspective, based on "personal safety", in terms of ensuring that mankind can use equipment safely, and "process safety", based on identifying potential risks inherent in facilities and processes.

From the point of view of people, it is important to establish an ingrained recognition of what the risks are, through exercises such as simulation-based education. It is also important to develop "risk sensitivity", to enable employees to identify risks in their own workplace based on incidents that have occurred at other companies. In recent years, "failures in change management" have been the cause of two thirds of accidents. If employees do not have a correct understanding of rules and processes, it makes it easier for conditions to change, which can lead to accidents. It is essential to make an effort to pass on the basis on which design criteria and conditions are determined.

In order to ensure safety on a more fundamental level, it is also important to get technical, research and production departments to work with one another with regard to equipment and processes, to raise safety levels even further. It is crucial to take steps to minimize risks from the design stages onwards, so that you can avoid any accident, even in the event of human error.

Finally, line managers in manufacturing workplaces have the most important role to play on the frontline. Unless they have some leeway, safety measures simply won't function effectively. I would say that reducing strain on frontline managers should be a key priority.

Points identified as important comments



Osamu Iida
Managing Director
President, Metals Company,
Safety & Health, Corporate
Production Engineering



Hiroshi Kondo
Senior Executive Officer
General Manager, Mineral
Resources & Recycling
Business Unit, Environment
& CSR



Hikaru Kimura
Senior Executive Officer
General Affairs, Human
Resources, Safety & Health



Viewing safety measures as an investment, and continually emphasizing your commitment

Kumiko Kitai

Lawyer, Kachidoki Law Office, Former Director-General, Secretariat of Central Labour Relations Commission

It is to Mitsubishi Materials' credit that the company has quickly rolled out a range of measures since the accident at the Yokkaichi Plant.

When pushing ahead with rapid-fire measures like that, management no doubt has to deal with concerns such as placing too much strain on frontline employees and ensuring that measures are effective. Achieving results is no easy matter. It is important for top management to constantly send out a determined message, underpinned by a commitment to working together and stepping up safety and health activities on a groupwide scale, including investing funds and human resources.

Generally speaking, capital expenditure for safety measures tend to be thought of as a "cost." It is essential to actively secure funding however, and to view measures as an investment in the future. Plant managers are responsible for overseeing safety and health in the workplace. Their attitude should be "if it's an urgent or critical risk, we will find funding in the budget". They should be demonstrating their commitment as management, and supporting frontline employees.

There has also been mention of including indices relating to safety and health in personnel evaluations. As efforts to promote greater roles for women are increasingly being included in personnel evaluations these days, I think evaluations from the point of view of safety should definitely be considered too.

Education meanwhile runs the risk of feeling like a chore, or a mere formality, if you go about things in your own way. If you use a range of outside organizations however, it enables participants to exchange information with other industries and other companies. I would like to see the company engaging in more multifaceted education like that.



Rolling out successful examples and maintaining integrated groupwide operations in order to improve safety throughout the group

Ryouji Takeda

Occupational Safety and Health Consultant, Former Director of Kyoto-Kami Labour Standards Inspection Office

As an outside supporter of Mitsubishi Materials' safety and health activities, I have had the opportunity to acquaint myself with outstanding initiatives at the likes of the Naoshima Smelter & Refinery, and Mitsubishi Shindoh Co., Ltd. Sambo Plant. There are times when I get the impression that levels of awareness and commitment vary considerably from one facility to another however. Having introduced a safety award scheme in April 2016, I would like to see that extended to initiatives in hard-working frontline departments, and successful examples rolled out to other departments, in order to improve safety even further on a groupwide basis.

In the wake of the accident at the Yokkaichi Plant, the company has been working to take initiatives to the next level, including establishing a safety culture, developing human resources and organizing Safety Declaration Day. In order to effectively communicate management's serious intent throughout the group however, it is important to maintain integrated groupwide operations, including members of staff from affiliated companies and subcontractors as well as Mitsubishi Materials employees. As there are numerous members of staff from affiliated companies and subcontractors at work in each workplace, I would like to see initiatives along those lines being stepped up.

The company is already focusing on training instructors as part of risk assessments in each workplace. In order to improve risk detection capabilities even further and step up measures to minimize risks however, executives should also get involved in risk assessments as a management priority. In particular, it is important to push ahead with risk reduction measures that prioritize fundamental or engineering-led solutions.

In order to learn from information on accidents that have occurred at other plants / factories, it is also worth focusing on developing proactive human resources that are capable of thinking and seeking out information for themselves, and that are able to play a leading role in terms of thinking things through in line with international standards.



- We need to continually send out a safety-focused message from senior management, in order to eradicate serious occupational accidents. We also need to communicate management's commitment and passion throughout the group through straightforward measures such as targeted human resources and funding, rather than relying on philosophies and encouragement.
- We need to improve safety standards from the perspective of both education and improvements to equipment and processes. We need to improve hazard sensitivity through simulation-based education, and to develop and build on specialist knowledge, using outside organizations where necessary.
- We need to share lessons learnt from previous accidents, effectively implement and establish preventive initiatives across all plants, and roll out successful plants initiatives throughout the group.
- We need to think about reducing strain on the managers responsible for manufacturing workplaces where operations are concentrated, to ensure that safety measures function effectively.
- We need to maintain integrated groupwide operations, fully taking into account members of staff from affiliated companies and subcontractors at work in our workplaces.