Damage from Thai Floods and Response

In October 2011, flooding occurring mainly in the central region of Thailand caused significant damage to many companies, including the local operations of Japanese companies. The Minebea Group was also affected, with the local subsidiary suspending operations and the flooding of manufacturing plants (Rojana and Navanakorn Plants). The Group's three largest manufacturing sites in the country, however, escaped damage and were able to maintain their manufacturing capacity. This is the result of the efforts of many employees to minimize the impact of the floods. Despite the severe working environment, the employees never lost their good spirits and each took active part in the activities to protect the company.

This feature reviews the rapidly changing situation from the start of the flooding, the countermeasures the Group took, along with the support activities of the employees.

Flooding Damage and Response

October 1st

- 1st Flooding begins to prevent some employees from commuting to work.
- 3rd The general manager of the Karuizawa Plant Maintenance Department and one other employee are dispatched to Thailand to support flooding countermeasures.
- 5th Construction of earth embankments begins around Ayutthaya Plant.
- 6th Areas around family dormitories at Lop Buri Plant flooded. Piling of sandbags begins at Rojana Plant.
- 7th Local Countermeasures Office (Bang Pa-in) and Management Headquarters (Meguro) are set up. Operations suspended at Rojana and Ayutthaya Plants due to suspension of power and water supplies. Rojana Industrial Park requests plant to suspend operations.
- 8th Ayutthaya Plant family dormitories flooded; Rojana Industrial Park temporarily closed due to flooding. 15 diggers and 15 dump trucks deployed at Bang Pa-in Plant and construction of earth embankments begins around plant.
- 9th Earth embankments around Ayutthaya Plant completed and piling of sandbags begins with help of employees and Japanese expatriates; Floodwaters rise around plant; Risk management manager from Personnel & General Affairs Department dispatched to support flooding response.
- 10th Senior management, including president, vice president, and senior managing executive officer, travel to

Thailand for plant opening ceremony. Senior management joins Local Countermeasures Office to support response. First floor of Rojana Plant flooded.

- 11th President takes part in countermeasures meeting and holds discussions with Thai government officials.
 - Water levels inside Lop Buri Plant decline.

Sandbag piling at Bang Pa-in Plant carried out with support of many employees and Japanese expatriates; Information collection activities using helicopter begin.

- 12th President leaves Thailand.
- 14th President returns to Japan and leaves again for Thailand on night flight. Navanakorn industrial park

temporarily closed.

- 15th Bang Pa-in Plant operations suspended to assure safety of plant employees; Construction of earth embankments continues; Thai army personnel supporting disaster relief arrive at Bang Pa-in Plant and begin to provide support, including overseeing embankment construction; Bang Pa-in Plant provides facilities for stationing army units.
- 17th Evacuation order announced at Navanakorn industrial park; 3,149 employees, including local employees, Japanese expatriates, and Japanese dispatched to plant, take part in response activities at Bang Pa-in Plant.
- 18th Navanakorn Plant flooded;

Countermeasures taken to minimize floodwaters inside plant; Pumps used to pump water out of plant. Water supply restored at Ayutthaya Plant.

- 19th Emergency meeting of Risk Management Committee convened; Water levels around Ayutthaya Plant begin to decline.
- 20th Operations restarted at Bang Pa-in Plant; Electric power transmission restored at Ayutthaya Plant and preparations are made to restart operations. President returns to Japan.
- 21st Dump trucks begin to be used to transport employees to work; Navanakorn Plant flooded.
- 24th Floodwaters reach central Bangkok.
- 25th Operations restarted at Ayutthaya Plant.
- 28th Recovery of metal molds and inventories begins at Rojana Plant.
- November 9th Drainage activities begin at Rojana Industrial Park.
 - 10th Machine tool maintenance activities begin at Navanakorn Plant.
 - 18th Drainage activities begin at Navanakorn Industrial Park.
 - 23rd Water levels at Rojana Plant decline below floor level and operation restoration activities begin.
 - 30th Water levels at Navanakorn Plant decline below floor level and operation restoration activities begin.



THAILAND

Lop Buri Plant
Ayutthaya Plant

Bang Pa-in Plant

Navanakorn Plant

Rojana Plant

Bangkok

Chao Phraya

River



Response to Stakeholders

Response to Customers

The Minebea Group strove to fulfill its responsibility of supplying customers by temporarily increasing inventories as well as increasing outsourcing of product manufacturing. In order to ensure that product shipments reached planes and ships by their departure times, employees confirmed the status of regular transport routes and traffic information and shared the information with other departments to adjust the shipment times from the plants.

The Local Countermeasures Office used a company helicopter to survey floodwater status almost daily. Responding to customer requests, the helicopter was also used to check areas around customer sites. The Management Headquarters in Japan collected information and made six public announcements to keep stakeholders informed of the status of damage.

Support for Local Residents

The flooding also caused severe damage to the residential areas and lives of people living around the Group's plants. The Group supported residents around the plant by distributing emergency relief goods and sandbags. The Bang Pa-in Plant also stationed Thai army units and provided logistics support for the units in their relief activities. The Group will continue to support residents as they recover from the disaster.

Employee Cooperation Makes Flooding Countermeasures Possible

The support of many Group employees was critical to the construction of earth embankments, water drainage, and other countermeasures which helped to minimize the damage to the Group's facilities. Employees demonstrated a high level of motivation to protect their own workplace, with the number of volunteers exceeding the number recruited. Many employees gladly worked on holidays and during the night to protect the facilities.

The Group thoroughly managed the safety and health of its employees to prevent secondary damage. Open spaces in the plant were used as relief shelters for some 500 employees unable to commute or return to their homes. The Group also reassigned employees from the Rojana and Navanakorn Plants, where operations were suspended, in order to maintain the employment of all the employees. The employees' recognition of the Group's commitment to their employment and safety not only deepened the bonds of trust, but created a source of strength to help the Group overcome the disaster.

The Group provided consolation funds to approximately 13,000 employees affected by the disaster, and donations collected from Group worksites around the world were donated to repair and rebuild the homes of 146 employees who suffered particularly severe damage.

Environmental Surveys

The Group confirmed the leakage of oil and chemical substances from machinery and washing equipment and disposed of the waste oil and fluids, along with dried sludge containing oil, in accordance with environmental regulations. The Group also conducted water quality and soil tests at each of the local plants, and has confirmed that the amounts of heavy metals, chemical and other substances are within safe ranges which will not impact the environment.

Floods in Thailand

Minebea Products in Society

Reconstruction Activities and Countermeasures Against Future Natural Disasters

Based on the lessons learned from the flooding, the Minebea Group is striving to reinforce its countermeasures and prepare for the possibility of future floods.

The restoration of the damaged Rojana and Navanakorn Plants is scheduled to be completed in September 2012 following the total replacement of machinery, maintenance to the facilities, and the cleaning of the inside and outside of the buildings. Both the plants are located in industrial parks which are strengthening their own flooding countermeasures (construction of embankments). The plants are taking independent initiatives, however, which include the reinforcement of buildings with steel plates to prevent water from entering. The Bang Pa-in and Ayutthaya Plants, meanwhile, used water level data from the 2011 floods to construct new embankments which can withstand floods three-to-four times the previous size (construction completed in July 2012). In addition to the direct impact of the floods, the inability of employees to commute to work and unstable power supplies also contributed to periods of lower operational capacity at the plants. The Group will use this experience to bolster future countermeasures, including the establishment of backup structures at other plants to fulfill the Group's responsibility of supplying customers, as well as the reformulation of the inventory strategy.

One of the most valuable experiences from the disaster was the strengthening of the Group's unity through the demonstration of employees' strong desire to protect their company and collaborate to overcome the disaster. This new sense of unity will be leveraged to bolster countermeasures against future disasters.

