

Eco-factories

Environmental Risk Management

We established a set of safety standards and a system for sharing information to implement environmental risk management throughout the NEC Electronics Group.

In addition to conventional regulations for handling and control of special gases, NEC Electronics own regulations for control of chemicals are implemented throughout the NEC Electronics Group in the effort to prevent industrial accidents. Also, reciprocal patrols are conducted by all of our manufacturing companies to reduce overall risk.

Strategies for control of special gases

In 1984, safety control standards for special gases* were established in 1984 that incorporate NEC's accumulated know-how and experience. The most recent 9th edition of the standards (as of 2007) is the result of repeated revision and updating of the standards with respect to amendments to the High Pressure Gas Safety Law, accidents that have occurred in the semiconductor industry, and lessons learned from near-miss incidents in our factories.

In addition, our manufacturing subsidiaries carry out patrols to check each other's handling of special gases and verify that all sites using special gases are implementing appropriate safety control measures in compliance with regulations. The system has proved to be very effective; no major incidents of chemical leakage or explosions have occurred since the patrols were established.

*The term special gases used by NEC Electronics signifies the group of specific high pressure gases and semiconductor material gases specified by laws and regulations such as the High Pressure Gas Safety Law.

Yearly plan for reciprocal patrol



A reciprocal patrol

Strategies for control of chemicals

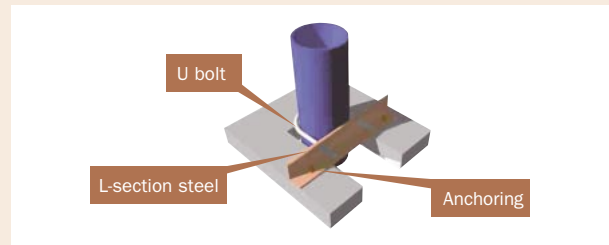
We are implementing stronger measures to prevent leakage and applying them to a greater number of chemicals. After a review of regulations, we decided that it is essential to furnish equipment using these chemicals with an automatic shutoff function. We have reinforced the safety of equipment where necessary and stepped up measures to prevent leakage for targeted equipment. In fiscal 2006, we began reciprocal patrols to check handling of chemicals in addition to handling of special gases, and in fiscal 2007, patrols made the rounds of all of our production compa-

nies in Japan. In fiscal 2008, patrols were carried out at our overseas bases.

Strategies for response to earthquakes

In fiscal 2006, we established a new set of regulations for all of our companies that specify standards for installation of structural elements of factory buildings and related plant facilities, and placement and anchoring of manufacturing equipment based on expected seismic intensity (maximum seismic intensity of 7). In fiscal 2008, we continued to implement stronger measures to reinforce safety where necessary in compliance with these regulations.

Vertical piping anchored with a reinforcing plate



Information sharing

As part of our environment, safety, and health effort to prevent accidents, we have compiled collections of industrial accidents and near-miss incidents that are made available on our website to facilitate information sharing. All manufacturing subsidiaries in the NEC Electronics Group use the information to develop risk management activities. The progress of these activities is checked on the occasion of environmental management audits.

The website facilitates information sharing

発生年月	発生場所	内容	原因	改善状況
2007-10-06	工場	作業員が作業中に機械に手を挟まれた。	作業員の不注意	安全講習を実施し、再発防止策を講じた。
2007-11-15	工場	作業員が作業中に機械に手を挟まれた。	作業員の不注意	安全講習を実施し、再発防止策を講じた。
2008-01-10	工場	作業員が作業中に機械に手を挟まれた。	作業員の不注意	安全講習を実施し、再発防止策を講じた。

Environmental accident reports

On December 7, 2007, an accident occurred at NEC Semiconductors Kansai's Shiga Plant involving the release of contaminated reddish-brown wastewater.

On the previous night, sludge accumulation (cohesive sediment) was transferred for treatment from one sedimentation tank to another (equipment in the wastewater processing facility that is used for biological treatment). The sludge overflowed from the sedimentation tank due to loss of cohesiveness and was released into the waterway. At about 8:20 the following morning, the contaminated water flow was discovered by plant employees and the effluent gate was closed to stop the flow. The environmental conservation department in Otsu City was immediately notified of the accident. Officials came to inspect the site and verified that fluorine concentration was less than 1ppm and that no other hazardous materials were contained in the wastewater. With the permission of the department officials, the waterway was subsequently cleaned. Results of investigations revealed that the contaminated wastewater began to flow at about 7:30 in the morning and that approximately 300m³ of wastewater containing approximately 14 kilograms of contaminants was released.

NEC Semiconductors Kansai will reinforce its surveillance system and equip the water storage tank (facility for temporary storage of water prior to release) with a turbidity meter to prevent the occurrence of similar accidents in the future.

Complaints from neighboring residents

In fiscal 2008, we received three complaints from neighboring residents in Japan and one complaint from neighboring residents overseas.

The first complaint was about noise generated by soil cleanup at NEC Semiconductors Yamagata's former Takahata Plant. A meeting was held for neighboring residents to explain the necessity for the cleanup and the cleanup process.

The second complaint concerned an acidic odor detected at the train station adjacent to NEC Semiconductors Kansai's Shiga Plant. Measurements made by the company and on-site inspection by Shiga Prefecture and Otsu City officials confirmed that there was no problem. However, we are continuing to periodically make patrol inspections to make sure that the station is unaffected by company operations.

The third complaint was about noise at night from the employee parking lot at NEC Semiconductors Yamagata. The persons involved were cautioned and the position of the parking lot was changed. In addition, we requested all employees who use the parking lot to keep noise to a minimum. Since then, no other complaints of this sort have been received.

Overseas, there was a complaint about noise at night at NEC Electronics America's Roseville Plant. The company together with city officials investigated the complaint, but the source of the noise in question was not corroborated.

Violations of laws and regulations

In fiscal 2008, as in the past, we received no fines or penalties for violations of environmentally related laws and regulations.