

#### Faulty Installation Blamed For Reactor Accident

**Labor Ministry to Urge** Cut in Overtime Hours

Believing that shorter working hours do not necessarily reduce productivity. the Ministry of Labor will soon seek to lower Japan's mandatory ceiling on overtime work by around 20%. Amid a serious labor shortage, many Japanese businesses are asking their employees to work more overtime to maximize factory operating rates-a move the ministry thinks runs counter to the global trend toward shorter working hours.

The ministry will begin by surveying working hours in various industries, including management-union agreements on overtime work, average working hours and maximum working hours. The Central Employment Security Council, a ministry advisory panel, will develop recommendations based on the survey results.

The ministry's current guidelines on overtime work agreements set a mandatory limit of 450 hours a year. Ministry officials said a recent poll of 100 smaller businesses eager to reduce total working hours proved that labor productivity can be improved even if working hours are cut.

Some 93% of respondents said their productivity had improved as a result of a cut in working hours. In 70 businesses productivity improvement in percentage terms outpaced the percentage cut in working hours. Only six businesses blamed shorter working hours for reduced productivity. Overall, the poll found that the 89 businesses responding cut annual working hours an average 2.3% and saw their productivity improve an average 7.8%.

A nuclear reactor at Kansai Electric Power Co.'s Mihama plant in Fukui Prefecture was ordered shut down in February following a major accident caused by the faulty installation of a device in its steam generator. One of the tiny pipes attached to the generator broke, forcing the 500.000-kilowatt pressurized water-type reactor to a halt after its emergency core cooling system (ECCS) went into action. It is the first time an ECCS has been activated at a Japanese nuclear power plant.

The Natural Resources and Energy Agency of the Ministry of International Trade and Industry attributed the accident to an improperly installed antivibration bar (AVB). Vibrations caused by cooling water rushing through the generator's cooling pipes were not dampened

properly, possibly causing metal fatigue in the broken section, MITI officials said.

Mitsubishi Heavy Industries Ltd., the main contractor for the reactor, admitted responsibility for the faulty installation. However, according to MITI officials, the construction contract did not require Mitsubishi to check whether the AVB had been installed properly, nor are AVB checks included in the reactor's annual inspection program. Mitsubishi said there was no record of the AVB ever having been checked.

MITI is now inspecting 17 other reactors of the same type across the country, and is expected to formulate new measures aimed at preventing similar accidents in the future.



#### **Survey Places Tokyo** 6th for Tourist Costs

London remained the most expensive city in the world for tourists in 1990, while Tokyo dropped to sixth place from fifth place the previous year, according to a survey by the Japan National Tourist Organization (JNTO). It attributed the drop to a 20% increase in the value of European currencies against the dollar during the year, against only a 7% appreciation of the yen. The JNTO is affiliated with the Ministry of Transport.

The annual survey of 22 major cities was made last November, when the exchange rate stood at ¥133.40/S. It compared prices for seven key items, including hotel rooms, meals and taxi fares. for a three-night stay.

Against Tokyo's base value of 100, London stood at 148, Paris 122, New York 115, Frankfurt 107 and Geneva 103, Sao Paulo was lowest among the 22 cities at 60. London headed the list for the third straight year. Tokyo was ranked most expensive in 1987, but since then Tokyo hotel charges and other prices have risen more slowly than in other major cities.



## **Corporate Direct Investment Dropping**

Japan's direct overseas investment in fiscal 1990 was down 2.8% from the previous fiscal year, the first year-to-year decline since fiscal 1986, according to a survey of major manufacturers by the Export-Import Bank of Japan. The downtrend, which came in the aftermath of an economic downturn in the United States, the Gulf War and a decline in large mergers and acquisitions, is likely to continue for the next few years, bank sources said.

Fiscal 1990 direct overseas investment by the 233 companies responding to the survey came to ¥1,588.2 billion, down ¥45.8 billion from fiscal 1989. Companies which had already prepared fiscal 1991 investment plans estimated that the fiscal year will show a fall of another 10.4% from fiscal 1990. The figures are in stark contrast to the annual 60% increases registered in 1986-1989.

As for mid- and long-term prospects, many respondents said they have already invested enough abroad and do not need to make further investments for the time being. Some 44% said their overseas investment for the next few years would remain at or below current levels, or that they have no investment plans at all.



### Osaka Int'l Business Confab Offers Invites

Businesspeople from around the world are being invited to a conference in Osaka from October 21 to 24 that aims to provide opportunities to find prospective partners for trade, joint ventures and other forms of business tie-ups, and also to offer the latest business-related information. The organizers will help set up talks between overseas companies and their Japanese counterparts.

The annual event, Global Business Opportunities Convention (G-BOC), is organized mainly by the Osaka Chamber of Commerce and Industry. Over 600 participants from 37 countries as well as 3,000 from Japan attended last vear's meeting.

The secretariat of the G-BOC 91 is located at OCCI, 2-8, Hommachibashi, Chuo-ku, Osaka 540. (Tel: 06-944-6403, fax: 06-944-6409)



## **Consortium to Develop** IBM-Compatible PC

Eleven Japanese computer and consumer electronics manufacturers have joined hands with IBM Japan Ltd. to develop IBM-compatible personal computers that can rival NEC Corp.'s popular PC-9801 Series models in the Japanese market. Members of the PC Open Architecture Developers' Group (OADG) include Hitachi, Toshiba Corp., Fujitsu, Sony Corp., Matsushita Electric Industrial Co. and Mitsubishi Electric Corp.

While IBM compatibles have become the dominant standard in the United States, NEC's PC-9801 Series has carved out more than a 50% share of the PC market in Japan. The NEC computers are not compatible with IBM types, affecting software as well as hardware sales.

IBM Japan will supply OADG members with its PC disk operating system version J4.0/V and software developed by Microsoft. The company will also provide technical information, compatible test support and display technology.



## **MITI Hoping to Develop** Silicon Supermaterial

The Ministry of International Trade and Industry will launch a 10-year, ¥10 billion project this fiscal year to develop a new, high-technology "supermaterial" based on silicon. The goal is a high molecular compound more resistant to heat and chemical erosion than plastics, a better electrical conductor than metal, extremely light, corrosion-resistant, and causing little pollution.

If the project proves successful, the new technology would make it possible, for example, to synthesize an optoelectronic material which is as transparent, dense and heat-resistant as glass, vet far easier to process. Such a material would find a wide range of industrial applications, from luminous paints, solar batteries and construction materials to semiconductors and aerospace components, MITI officials said.

Silicon belongs to a similar atomic family to carbon. It is thus relatively easy to synthesize a variety of compounds from it, in the same way that polyethylene and other products are made from petroleum. Unlike carbon, silicon conducts electricity just as metals do, and is structurally stronger than carbon itself. All these features make the element a superb base for developing multi-functional high molecular materials.

Officials said MITI will ask the Future Technology Development Committee of the Industrial Technology Council to develop a blueprint for the project. The initial targets will be a material with 10 to 1,000 times higher conductivity than metals and one which is suitable for producing superstrong and highly heatresistant engineering plastics. Private businesses may be invited to join the project, officials said.

# **Import Curbs Agreed** For Sarawak Lumber

Japanese lumber importers have agreed with Malaysia's state of Sarawak to reduce imports of lumber from the state by about 15% in 1991 to protect its lumber resources

It is the first time that lumber importers and producers have concluded an import reduction agreement specifically for environmental reasons. The accord. signed by such leading Japanese companies as Marubeni Corporation and C. Itoh & Co., is based on a recommendation by the International Tropical Timber Organization (ITTO) that annual lumber production in Sarawak be reduced to 9.2 million cubic meters by the year 2000. ITTO surveys in 1989 and 1990 found excessive deforestation in the state.

Under the agreement, Sarawak, Japan's major supplier of tropical lumber. will curtail total lumber exports in 1991 to between 12 and 12.5 million cubic meters from the planned 14 million. A similar reduction rate will be applied to its exports to Japan, which account for over half the total. The accord further limits the minimum size of logs shipped to Japan unless produced in specially designated areas. The two sides are to hold talks twice a vear to set export quotas.

Malaysia's lumber exports account for more than 90% of the world's tropical lumber trade. Japan relies on the states of Sarawak and Sabah for more than 90% of its tropical lumber imports.