

the resources available and to train the main officers responsible within the various bodies.

**International dimension of nuclear information**

An incident at a nuclear power plant or a decision concerning a country's nuclear power programme are very soon reported by the media of other countries. This is particularly true since the Chernobyl accident.

The information passed on is often distorted, or even wrong. We have suffered from this problem in recent months and it has led us to step up our contacts with operators in other countries and even with foreign journalists. France is perhaps in a rather special situation — its achievements have clearly irritated certain foreign organizations with an anti-nuclear "religion". A co-ordinated and clear information strategy needs to be based on both the strong and the weaker points of the nuclear issue.

If strict safety standards are maintained at installations and if solutions for waste disposal and ways of having them accepted by the public are found, then nuclear energy could be one of the answers to the world's concerns about the greenhouse effect. This is the substance of an appeal to President George Bush which was signed by 49 Nobel-prize winners and 400 American scientists. It sets out clearly the conditions for public acceptance of nuclear energy in many countries.

**JAPAN**

**Nuclear energy information centres**

*Giving people a "first-hand" look at a nuclear power plant*

by Izumi Wada

One of Japan's major utilities — Tokyo Electric Power Co. Inc. — now owns three nuclear power stations: Fukushima Daiichi, where six units are operating; Fukushima Daini, where four units are operating; and Kashiwazaki-Kariwa, where the first of seven planned units started operations in 1985.

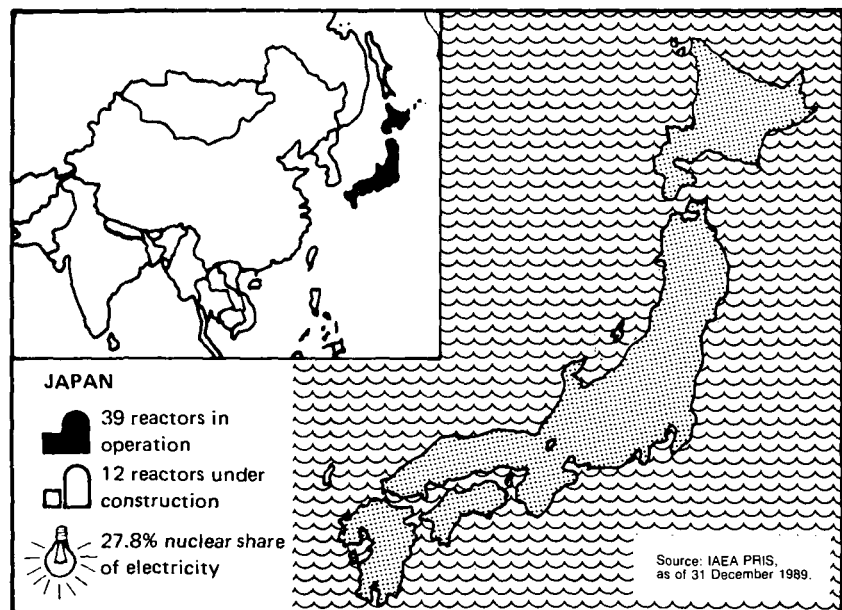
Each of these three nuclear power stations has an attached service centre designed to help the general public develop a better understanding of nuclear energy production.

Ms Izumi Wada is on the staff of the Nuclear Power Development Administration Department, Tokyo Electric Power Co. Inc., Japan.

**The Kashiwazaki-Kariwa centre**

At the Kashiwazaki-Kariwa service centre in Niigata Prefecture, the exhibition hall alone is a five-storey building. Opened in June 1983 (before the first unit started commercial operations), the centre itself is a reinforced concrete structure having a total area of 1814 m<sup>2</sup> and a floor space of about 3072 m<sup>2</sup>. The centre is located about seven kilometres from Kashiwazaki City, which has a population of about 90 000.

The public relations centre is directly administered by the company; the staff includes four men — a director (division manager class),



a technical section chief, a vice director, and a senior staff member — and seven public relations women who are called Atomic Power Information Ladies or APILs. The centre is open daily nearly year round.

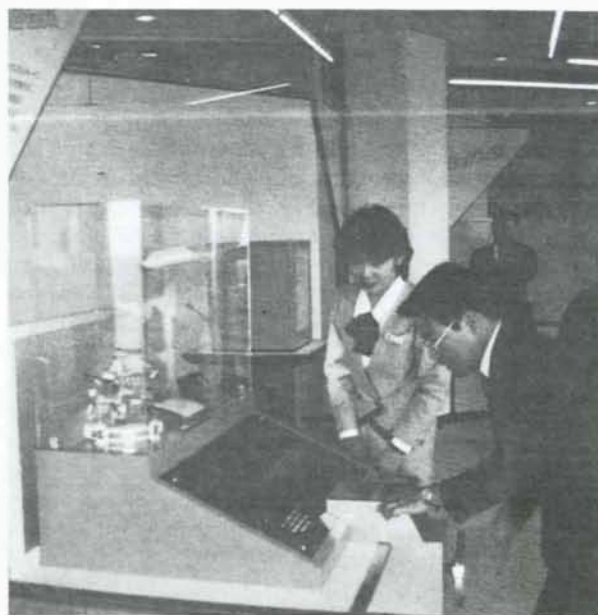
The centre carries out a variety of public relations activities. It is equipped with one-fifth scale models, panels, and exhibits to provide visitors with basic information about atomic energy, such as the mechanism and safety of nuclear power generation, so that they will be able to have a better understanding of what nuclear power generation is all about.

Visitors to the centre are also given an opportunity to have a first-hand look at what is going on in the nuclear power station, how operations of the plant are monitored and checked at the central control room, and how the fuel replacement pool, various equipment, and structures are managed in the reactor building.

The APIL guides are playing a very important role in achieving the service centre's objectives. Each of them serves as a guide to visitors at the centre to help them obtain a deeper knowledge of nuclear power generation, explaining to them how nuclear energy is produced and how safety is ensured, using scale models, panels, films, and video tapes.

### Making the invisible visible

Ever since the Three Mile Island and Chernobyl nuclear plant accidents, concern over nuclear energy production is growing worldwide. This is also true in Japan; people are demanding that electric utilities disclose information about troubles and operations of nuclear power plants. People's demands apparently originate from vague apprehensions about something invisible, because nuclear power plants are mostly located far away from energy-consuming city centres and are not easily accessible or visible to a majority of the public.



Visitors to the Kashiwazaki-Kariwa information centre can learn about electricity generation using computer exhibits. (Credit: Tepco)

To solve this problem and dispel public misgivings, the service centre gives visitors an opportunity, if they please, to have access to the inside of this nuclear power station. It gives them a first-hand look at the central control room monitoring the operations of the plant, as well as turbines, generators, and the fuel replacement pool, so that "an invisible power plant" can be turned into a visible one.

During 1989, Kashiwazaki-Kariwa nuclear power station received a total of 150 540 visitors, many of whom visited the central control room, the reactor building, and other controlled areas with

guides. (Of these visitors, 49% were from the locality and 51% from outside the prefecture.)

The service centre is also drawing upon many original ideas and initiatives to build up better communication with visitors, including local inhabitants.

Visitors at the service centre are first invited to the audio-visual section where 16-mm films and videos are shown. They include those introducing Kashiwazaki City and Kariwa Village, the location of the nuclear power station, and a documentary called "Yomigaeru Sakyu (Dune Back To Life)" on the con-

An APIL guide at the Kashiwazaki-Kariwa information centre points out the thickness of containment structures for nuclear reactors. (Credit: Tepco)



### Public opinion in Japan

As in many countries, nuclear plant safety has become a major public concern in Japan. While most people regard nuclear power plants as necessary for electricity generation, nearly half question their safety and more than 40% oppose construction of more nuclear plants, according to surveys conducted in November 1989 by the Japanese Federation of Electric Power Companies.

Mr Nobuo Asai, Manager of Public Information and Relations on Nuclear Power at the Kansai Electric Power Co., says the responses reflect trends since the 1986 Chernobyl accident in the Soviet Union. Public opinion about nuclear power in Japan has changed "drastically" in recent years, he told participants at the US Council for Energy Awareness INFO '90 conference in April 1990. An active anti-nuclear movement has emerged, he said, supported mainly by urban housewives and young people who are working with lawyers, professors, religious leaders, and others in attempts to "denuclearize" Japan. They are relying heavily on media and political channels, and "grassroots" activism, to press their points.

In response, electric power companies, through their own programmes as well as the Federation's initiatives, are placing more and more emphasis on public awareness and educational activities. Target audiences include teachers, students, physicians, and housewives. The aim, Mr Asai said, is not one-way communication — "Let me teach you" — but rather establishment of a constructive dialogue through which concerns about energy, economic, and environmental issues can be addressed. Among the Federation's activities are arranging seminars on nuclear energy for employees of electric companies; distributing books and video tapes to elementary schools; enlisting experts to participate in televised debates on nuclear energy issues; sponsoring authoritative articles in medical journals on radiation and its effects; sponsoring instructional courses for science teachers; and preparing question-and-answer materials on nuclear safety and other issues that utility communicators can use in response to customer concerns.

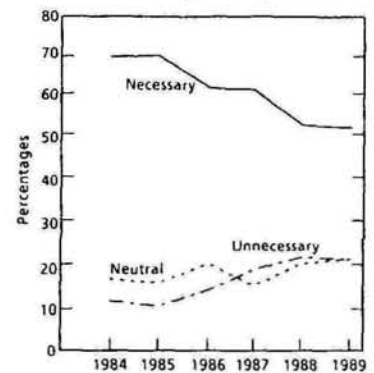
Radiation issues are especially problematic in Japan, Mr Asai reported, because of the atomic bomb's destruction there. The subject of nuclear energy and radiation is not incorporated in school curricula, he said. Consequently, he said, "nobody understands the quantitative concepts of radiation and most people consider that radiation is dangerous" at any level. The Federation is working to correct misunderstandings through educational programmes involving teachers, physicians, and citizens. "We have to develop a more constructive

dialogue," he said, "and we have to get trust from the general public."

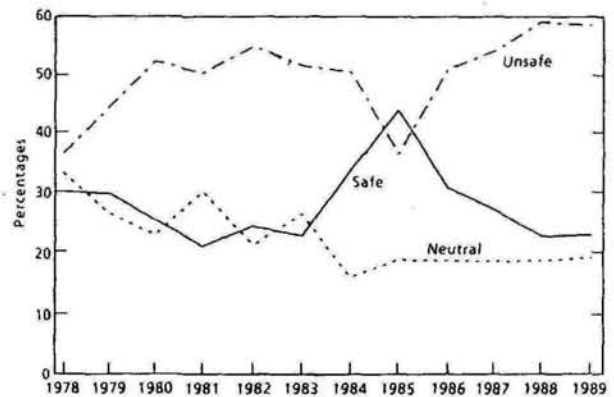
This report is based on Mr Asai's paper, "Public Circumstances Surrounding Nuclear Power General in Japan", presented at the US Council for Energy Awareness INFO '90 conference, 22-25 April 1990, in Dallas, Texas. The US Council for Energy Awareness is located at 1776 Eye Street NW, Washington, DC 20006, USA.

### Japanese Public Opinion and Nuclear Power

Opinion regarding the importance of nuclear power generation



Opinion regarding the safety of nuclear power generation



Opinion regarding construction of nuclear power stations

