

# VOICES FROM THE DARKNESS

by Kondo Kazuko

"What's going on is terrifying. What I've been seeing is terrifying." The famous Japanese writer Minakami Tsutomu often receives drunken telephone calls late at night from his old childhood friend who is now working in the Oi nuclear power plant in Fukui Prefecture, where there is one of the greatest concentrations of nuclear power plants in Japan. (*Mainichi Shimbun*, Jan. 8, 1980)

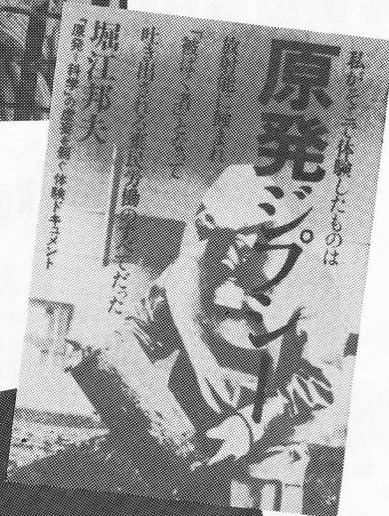
The "horrible things" are actually happening. And the people who are forced to do the horrible things are the workers, especially those working under sub-contractors.

Japan, with 21 nuclear reactors generating 15 million kw, has become the country with the second largest nuclear power generation after only 14 years since the first nuclear reactor began commercial operation. However, the situation of the workers of these plants has been completely neglected.

In 1977 then Diet member Narasaki Yanosuke of the Japan Socialist Party reported at a Diet session that 75 nuclear power plant workers had died of cancer or leukemia, presumably caused by nuclear radiation. However, the power companies refused to acknowledge the causal relation between radiation received while working at a nuclear reactor and cancer and leukemia which broke out after the victims had left.

The number of victims working at nuclear power plants is rapidly increasing. According to a government report, the number of workers (subjected to radiation) in 1978 was 34,000, the total radiation dosage exceeding 10,000 man-rem, doubling the figure of two years ago. If the increase continues at this rate, the cumulative dosage should reach 100,000 man-rem in 1983.

According to a long range study by Dr. Mancous of the workers at the Hanford Nuclear Facility at least 20 to 30 persons per 10,000 man-rem died of cancer. Applying this data to Japan, with an accumulated dosage of 42,000 man-rem up to 1978, 80 to 120 persons may have died of cancer.



**Genshiro Hibaku Nikki** (Diary of a Reactor Radiation Victim) by Morie Shin. *Gijutsu to Ningen*, November, 1979. 250 pp. ¥1,400

**Genpatsu Jipushii** (Nuclear Power Plant Gypsies) by Horie Kunio. *Gendai Shokan*. October, 1979. 318 pp. ¥1,500.

**Genpatsu** (Photo Document: Japan's Nuclear Power Plants) by Higuchi Kenji. *Origin Shuppan*, July, 1979. 183 pp. ¥3,000

The biggest problem in Japan is that most of the growing number of workers exposed to radiation, are "nuclear powerplant gypsies" who work under subcontractors, and wander from one plant to another. No. 1 reactor of the Fukushima No. 1 nuclear power plant of Tokyo Electric Power Co. (BWR, manufactured by GE; 460,000 kw) is notorious for its defects (its operation rate has been less than 30 per cent since it began commercial operation). Its radiation dosage constituted 26 per cent of the total worker dosage in 1978, but of those 92 per cent were working under subcontractors. The reactor has been under regular inspection since December 1979, and the Ministry of International Trade and Industry (MITI) has acknowledged that the inspection workers, all of whom are employed by subcontractors, are exposed to as much as 1,000 millirem per day (the maximum permissible dosage for workers, as designated by International Commission of Radiological Protection is, 5,000 millirem per year).

Three books exposing this situation were published last year, causing a sensation in Japan. *Genpatsu Jipushii* (Nuclear Power Plant Gypsies) is a documentary written by Horie Kunio, who voluntarily worked for a subcontractor in order to learn the actual conditions of the nuclear power plant workers and was himself exposed to nuclear radiation (Gendai Shokan, October, 1979). *Genshiro Hibaku Nikki* (Diary of a Reactor Radiation Victim) by radiation operator working for a subcontractor under an electric company exposes his experience from the inside (Morie Shin, Gijutsu to Ningen, November, 1979). *Genpatsu* (Photo Document: Japan's Nuclear Power Plants) is a collection of photographs by Higuchi Kenji.

These three books tell us how ignorant we have been concerning the situation within nuclear power plants. To generate the electricity which we consume daily, for instance when we make a piece of toast, requires the labor of tens of thousands of workers exposing themselves to radiation, and explodes the myth that nuclear power plants are advanced technology. Nuclear power plants which can exist only on the premise that some workers must die of cancer or leukemia, should not be allowed to exist.

In the U.S., where nearly 70 reactors exist, it can be estimated that there must be more than 100,000 workers exposed to radiation. In the whole world, since there are about 200 reactors, almost 400,000 workers can be assumed to be exposed to radiation. From the fact that the number of new radiation victims increases annually, one can conclude that there is no difference between nuclear power plants and atomic bombs. Furthermore, these victim workers are to be buried in oblivion by the frantic efforts of the electric companies.

*Genpatsu Jipushii* tells us that the work of nuclear power plant workers dressed in space-suit like radiation-proof uniforms, is really quite primitive. Although there is no work that can be called work, workers are recruited from all over the country attracted by a daily wage of 5,000 to 10,000 yen, and sent into the plants with hardly any knowledge of radiation. (Until a few years ago the workers were recruited from slums such as Sanya in Tokyo, Kamagasaki in Osaka and *buraku* (where Japanese

outcasts live) in the Kansai area.

Their work includes washing work uniforms which have been contaminated with radiation; mopping up radioactive water; scraping out shells and sludge attached to drains; inspection and repairing, mainly removing radioactive dust from the hundreds of parts inside the reactors. These operations are carried out in a small hole surrounded by radioactivity where workers can hardly move, and the workers are often not able to leave and go to the toilet during these operations. They have fountain pen-like alarm meters pinned on their chests and must stop working immediately after being exposed to a certain amount of radioactivity, to be replaced by someone else. This may be after only a few minutes or as much as half an hour. Crawling around like a worm on an iron floor with a headspace of only 30 cm: this is the actual labor at a nuclear power plant which is equipped with all available facilities of modern technology.

At the Mihama Nuclear Power Plant of Kansai Electric Power Co., where Horie used to work, a worker is required to apologize to the parent company if he gets injured.

What makes the working environment worse is that reactors, for which a three-month annual inspection is required by law, are not designed so as to be easily inspected.

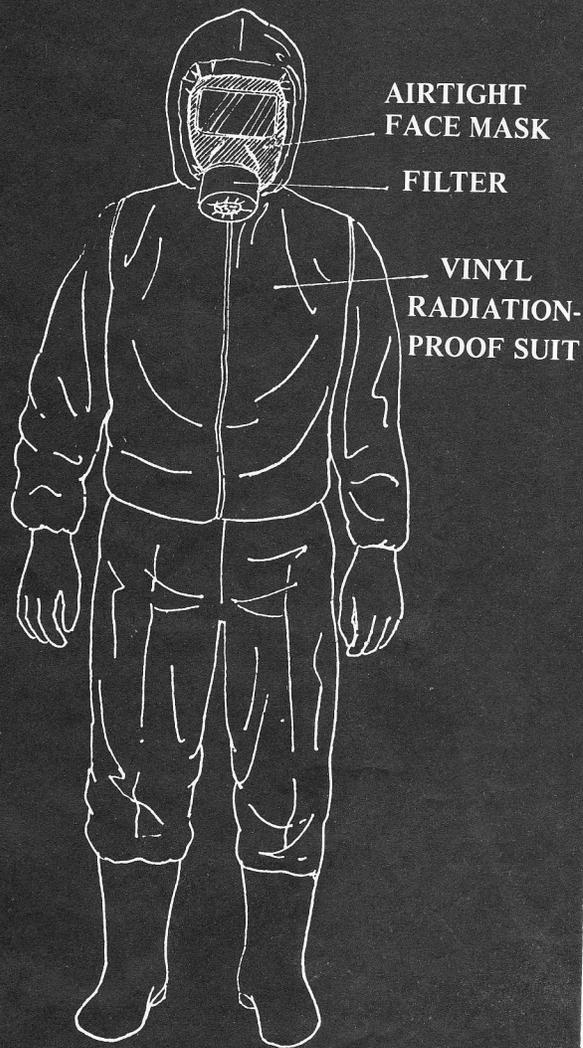
Horie reports that many workers show obvious radiation symptoms: feeling languid or chronic fatigue. But the problem is that the subconscious fear of radiation also damages the workers morale. To escape the stress, many workers indulge in drinking, gambling and sex. Though this psychological dissoluteness cannot be measured statistically, it will surface soon or later as a major social problem.

The workers under subcontractors have 40 to 50 per cent of their wages ripped off by the job broker, and are treated differently from regular electric power company employees in all areas including wages, radioactive dosages, various social security benefits. If a worker is irradiated more than the designated amount, he is fired, thrown out, and neglected. Mr. Horie himself had his rib broken at Tokyo Electric's Fukushima No. 1 Nuclear Power but his injury was not regarded as falling under the workers' compensation insurance.

"A battle between the worker, whose very physiology has been ignored, and inorganic matter - pipes, concrete walls - This is the pain of the worker whose assigned task is to be irradiated."

Morie Shin who worked as a radiation operator for a subcontractor of Tokyo Electric, tried very hard to form a union in order to improve their working conditions, because of the fact that the amount of radiation dosage was one of the criteria for evaluating the workers. But he failed, and finally resigned from the company. The diary describing the process of this failure is his book *Genshiro Hibaku Nikki*. Being afraid of pressure from the electric company, he does not reveal his real name.

There is also a clear discrimination even between the regular employees of a subcontracting company and those of the electric power company. They are in effect hired to receive radiation in place of the power company's employees. There is hardly any difference



WORN BY WORKERS CLEANING OUT  
THE CONTAMINATED  
NUCLEAR REFUSE TANKS



in terms of the kind of work required of them and that required of subcontracted workers. They clean inside the power plants, and wash irradiated clothes. The water used for washing is discharged into the sea. Probably because of this, a survey conducted by local fishing people and researchers revealed that a considerable amount of cobalt 60 and manganese are already contained in the sludge and shellfish on the bottom of the sea near the mouth of the drainage of Tokyo Electric's Fukushima No.1 Nuclear Power Plant. (January 1980)

The words of a person in charge of safety control of the site, "You have been commendably irradiated," praising a worker who had been exposed to 90 millirem of radiation exceeding the 30-millirem capacity of his alarm meter, seem to express accurately the actual conditions of labor inside nuclear power plants. In other words, the ability of nuclear power plant workers to be irradiated is more highly valued than their ability to work.

There are three principles for avoiding irradiation: (1) to be away as far as possible from the radiation source; (2) to put something in between to block radioactive rays; (3) to work quickly. But nuclear power plants are arranged so that it is difficult to meet these principles. Mr. Morie shows in detail how the conditions in nuclear power plants make irradiation control difficult. Tokyo Electric's Fukushima No.1 nuclear power plant is said to be the most contaminated nuclear power plant in the world, and Japan Atomic Power Co.'s Tsuruga Nuclear Power Plant is also notorious for its loose radiation control. It is reported that they use a pocket-size radioactive dose meter which goes as high as 2,000 millirem. It is naturally subcontracted workers (and a "foreigners squad" of black workers, sent from the U.S. by General Electric and Westinghouse) who are to work under such a high radioactive dosage.

The anti-nuclear power plant opponents in Japan has begun dealing with the problem of workers' irradiation though this movement is still very weak. In the U.S. the irradiation problem seems to be more serious than in Japan. Probably it is mostly black and other minority people who are suffering from it. The same thing can be said for Europe.

And not a few workers will "turn into tombstones" as Higuchi Kenji's photo document shows.

The only known measure to counter irradiation is to take a shower. There is so far no medical treatment for radiation victims. As Morie says, "No one probably will die instantly of irradiation. It is a slow death, apparent only shown several decades later in the statistics. There is no inscription on the tombstone for nuclear power plant workers."

In 1990 the radiation dosage in nuclear power plants will increase to 1,430,000 man-rem and the accumulated dosage to 4,400,000 man-rem.

The problem of irradiation of workers has become an unavoidable social problem. These three books urge us not to repeat the tragedies of Hiroshima and Nagasaki.

Photos from "Genpatsu"  
An illustration from "Genshiro Hibaku Nikki"

Bottom left:

*A sub-contracted worker sent by U.S. General Electric*

Bottom:

*Local residents' rally against the construction of the Kashiwazaki Nuclear Power Plant. (Niigata Pref. 1973)*

Left:

*In 1973, a public hearing was held in Fukushima on Tokyo Electric's 2nd Fukushima Nuclear Power Plant. Since the participants were chosen by the Atomic Power Commission, local residents and anti-nuke activists from all over the country and supporting labor unions tried to block the hearing.*

