d. Work Environment

As shown in Picture 5.1-11, the inside of the turbine auxiliaries building is dimly lit, even during the day on sunny days. There are many places where the lighting is insufficient in the grounds of the power plant and especially in the turbine auxiliaries building. There are even places where it is impossible to see one's feet for the pitch darkness, even in the daytime. It is very dangerous, as one must walk without being able to see what is at one's feet, and urgent improvement is needed.

Picture 5.1-11 Inside the Turbine Auxiliaries Building

Further, as shown in Picture 5.1-5, there are no set work areas for conducting repairs or periodic inspections, so it is easy for people who are not involved in the work to come close to the working area. Also, there are no barriers around openings in the ground, so the employees of the power plant are working in dangerous conditions. They do not wear protective gear such as helmets and dust masks when they are working.

Picture 5.1-12 Stairs and Walkway Handrails

Another point of safety is shown in Picture 5.1-12. The grating floors, walkways, stairs, and handrails around the boilers are of weak construction, and walking around the site is a frightening experience for those who used to equipment in Japan. Further, although there are as many as twelve units, there is no method of identifying them, so there is the likelihood of mistaken operation.

5.1.7 Evaluation of Current Conditions

a. Existing Power Plant as a Whole

Even though all the units have been operating for over thirty years and over 200,000 hours, the average number of operating hours per year is over 6,000 hours, as shown in Figure 5.1-7.

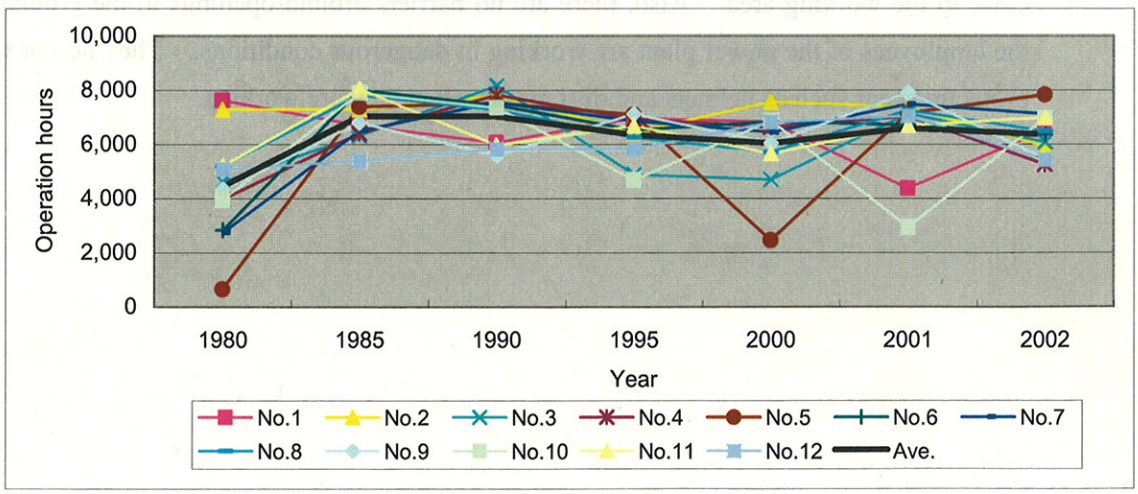

Figure 5.1-7 Unit Operating Hours

Figure 5.1-8 shows a graph of the availability for all the units, based on the operating time. Units with a high availability indicate 80% or more operation, and the average for all units is consistently high, at nearly 70%, despite a low availability for unit 5 in 2000.

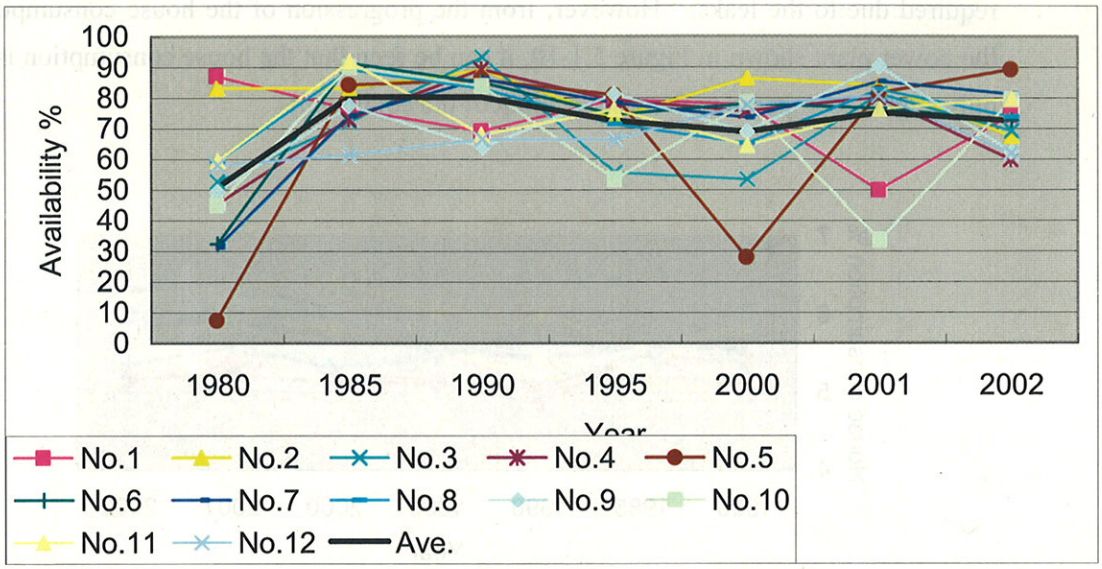

Figure 5.1-8 Equipment Availability Based on Operating Hours

Further, as shown in Figure 5.1-9, the units have maintained an average capacity factor, based on generated power output, of over 60%.

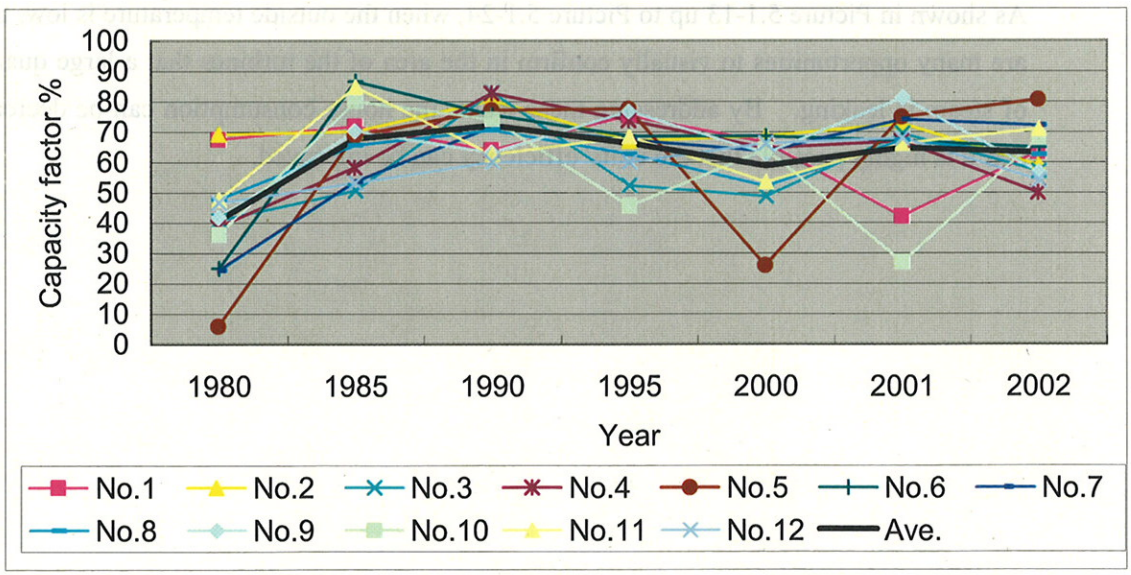

Figure 5.1-9 Equipment Capacity Factor Based on Generated Power Output