

CHAPTER 6

POWER PLANT OPERATION AND MANAGEMENT PLAN

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TES 4 has been incorporated as an independent company since September 2001 and is accordingly required to manage the company as a profit-making enterprise.

In this chapter, necessary reformations and improvements not only in the plant operation but also in the whole management are proposed for TES4 to break from the convention, pointing out the present conditions to be reformed and improved.

Recently, ROE (return on equity) and ROA (return on assets) are used as indices to measure the efficient operation of the capital and assets in carrying on an enterprise, and it is the duty of the manager to improve these indices.

Since TES4 aims to make a profit, it is reasonable to use these indices.

Considering the present immature capital market of Mongolia, it is advisable that TES4 adopts these as the management index. ROA is a composite index of the ratio of net profit on sales and the ratio of asset turnover and is a good appraisal at profitability and efficient use of asset. Fig. 6.1-1 “The management points of power plant” shows how each management point proposed in this chapter contribute to improve ROA.

- (1) In “Chapter 6.1 Organization,” restructuring of the organization for efficient work will result in decrease of the number of employees, and it will contribute to \Rightarrow decrease in the personnel cost \Rightarrow decrease in the fixed cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (2) In “Chapter 6.2.1 Administration of the operation,” improvement in the plant reliability by improvement in operation skills, or reduction of the forced outage by reduction of human error, and that will contribute to \Rightarrow increase in the stable supply and availability \Rightarrow increase in the Energy Sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (3) In “Chapter 6.2.2 Administration of the maintenance,” reduction of the repairing hours by improvement in repair skills, or reduction of the equipment degradation accident by enforcement of preventive maintenance, and that will contribute to \Rightarrow increase in the stable supply and availability \Rightarrow increase in the energy sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA. Furthermore, repair cost curtailment is possible by improvement of the maintenance administration, and it will contribute to decrease in the fixed cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (4) In “Chapter 6.2.3 Administration of the engineering,” improvement in thermal efficiency, or a recovery of condenser vacuum, and that will contribute to \Rightarrow Improvement in power plant efficiency \Rightarrow increase in the energy sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow

improvement in ROA. Furthermore, thoroughness in the quality control of coal will result in decrease of the fuel cost \Rightarrow decrease in the variable cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.

- (5) In “Chapter 6.2.4 Administration of the fuel,” thoroughness in the administration of the fuel storage will contribute to \Rightarrow decrease in the fuel cost \Rightarrow decrease in the variable cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (6) In “Chapter 6.2.5 Administration of the inventory,” proper stock of stored-goods will contribute to \Rightarrow increase in the inventory turnover \Rightarrow increase in the asset turnover \Rightarrow improvement in ROA. Furthermore, maintenance cost curtailment is possible by purchase cost reduction, and it will contribute to \Rightarrow decrease in the fixed cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (7) In “Chapter 6.2.6 Administration of the safety and health,” implementation of hazard identification activities, and that will contribute to \Rightarrow decrease in the industrial accident \Rightarrow improvement in the administration of the safety and health \Rightarrow compliance with relevant regulations \Rightarrow increase in the energy sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (8) In “Chapter 6.3 Environmental preservation,” reduction of environmental load, and it will contribute to \Rightarrow compliance with relevant regulations \Rightarrow increase in the energy sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA. Furthermore, Extension of the planned and correctly sized ash pond will result in the curtailment of ash disposal cost, and that will contribute to \Rightarrow decrease in the variable cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (9) In “Chapter 6.4 Personnel training,” implementation of education and training will contribute to \Rightarrow improvement in maintenance and operation skill \Rightarrow improvement in load response and plant reliability, reduction in planned outage time by reduction in repairing hours \Rightarrow increase in the stable supply and availability \Rightarrow increase in the energy sales \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA. Furthermore, implementation of education and training will contribute also to increase in operational efficiency, and it will contribute to \Rightarrow decrease in number of employees \Rightarrow decrease in the personnel cost \Rightarrow decrease in the fixed cost \Rightarrow decrease in the power production cost \Rightarrow increase in the ratio of net profit on sales \Rightarrow improvement in ROA.
- (10) In “Chapter 6.4 Financial management,” the practical financial management techniques that are necessary to solve the management subjects shown in the above item (1) to item (9) are proposed.

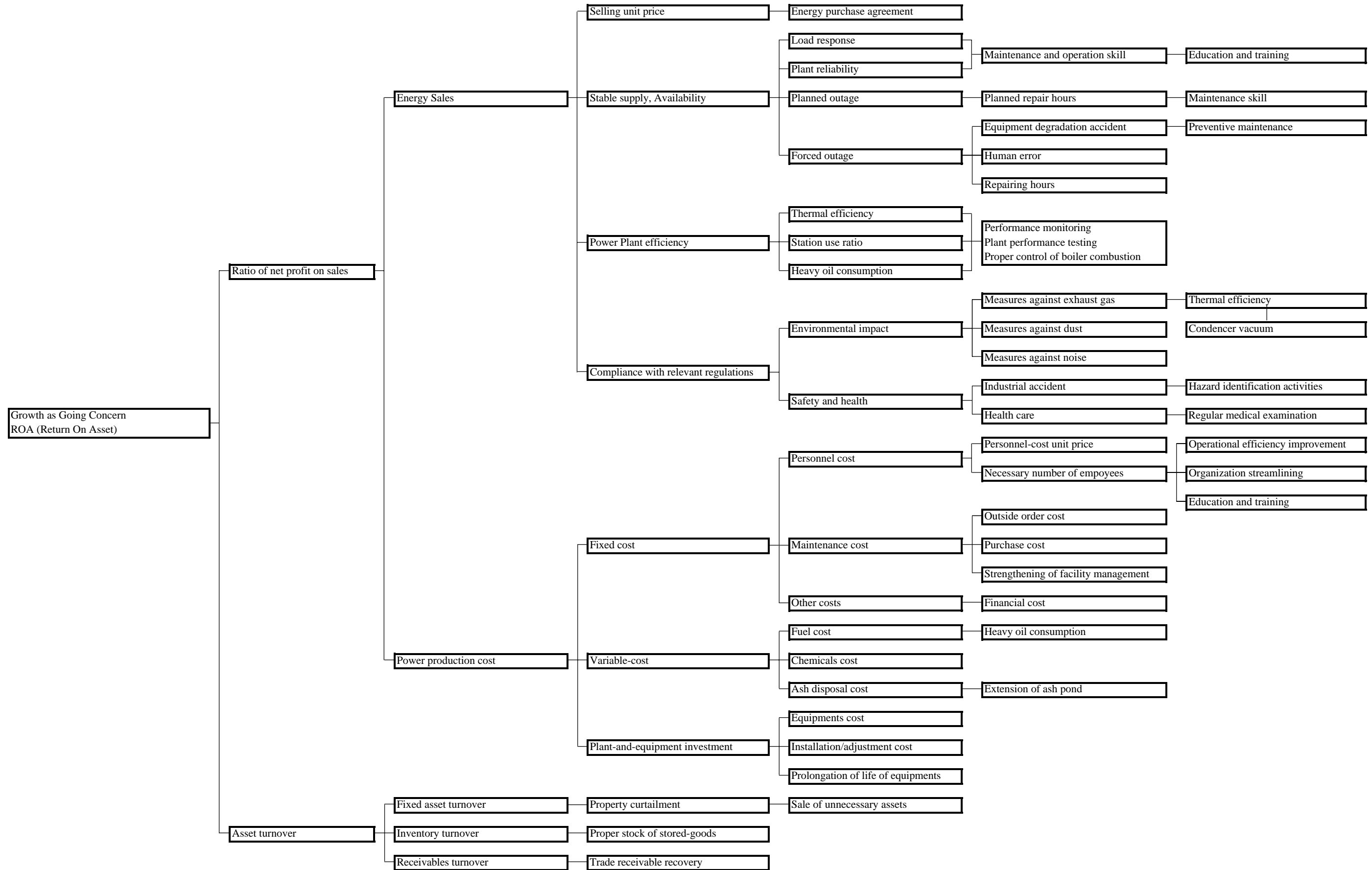


Fig. 6.1-1 The Management Points of Power Plant

6.1 Organization

TES4 was officially transformed to the Corporation by decision of the General Shareholder's Meeting held in September 2001 in the same manner as the National Thermal Power Plants and the Electric Power Transmission Network in pursuance with the Decree 164 promulgated by the Mongolian government in July 2001.

After the transform of the power plant into the hands of the Corporation, 41% of the total stock equity of TES4 is owned by the Ministry of Infrastructure, 39% by the National Financial Management Bureau and 20% by the Ministry of Finance and Economy. The Board of Directors consists of nine members in total to be elected as representatives of the ministries and the bureau. The Board is represented by four directors from the Ministry of Infrastructure, by three from the National Financial Management Bureau, and by two from the Ministry of Finance and Economy.

Consequently, TES4 will be operated in accordance with the rules and within the jurisdiction defined by the contracts between TES4 and the Board.

6.1.1 Review of the Organization

The TES4 organization needs a review in conjunction with the transfer of its ownership to the Corporation. The specific details of this reorganization are currently under consideration including the internal rules. However, the power station is to be operated under a provisional organization until April 2002.

(1) The points at issue with the Provisional Organization

The provisional organization chart (Refer to Fig. 6.1-2), which was proposed by TES4 and approved by the government, does not differ substantially from the organization under which TES4 has operated so far as a state-owned power plant.

Consequently, the organization of TES4 should be reviewed in due consideration of its originality as an independent corporation on the transferring to the Corporation.

Under the present provisional organization, there are two Vice Presidents to support the President. Their duties are divided into two divisions; one responsible for the Production Division and the other for the Management Division. The organization below the level of Vice President is not well structured.

The following points at issue are drawn to our attention on the Provisional Organization:

- 1) The basic functions (line) and the administrative functions (staff) are not clearly structured.

Similarly to the Administration Department, the Planning and Accounting Departments should come under the direct control of the President as staff divisions.

- 2) The line of command is unclear.

There are no clear-cut lines of the roles and functions between the second Vice President and the Finance Manager.

The Finance Manager as the head of the Accounting Department should be exclusively assigned to a particular role. He should not be in the position of managing the Planning Department, Sales Department and welfare facilities.

- 3) The following two departments should be established in the administrative function.

As the Inspection and Research Department is responsible for both safety and quality control in the present Provisional Organization. It will be necessary to define the functions of this department much more clearly as an independent department with a clear separation of the safety control and the quality control functions.

- (a) Safety and Health control Department

Although there has been a remarkable improvement in the working environment of TES4 in the course of the last few years, worker accidents including fatal ones, still occur in the power station every year. It is essential, therefore, to establish a Safety and Health control Department to look for further improvements in the working environment and the eradication of worker accidents. The number of work accidents in 2000 and job status after recovery are shown in the table below.

Table 6.1-1 Number of Industrial Accidents and Return to Work in 2000

[Unit: Case]

| Number of Industrial Accidents (Number of Medical Certificates) | Return to work | | Situation of recipients of Compensation | | |
|--|----------------|----------------------------|---|---------|-----------|
| | Change of Job | Return to the original job | Continuing to work | Retired | Dismissed |
| 112 | 17 | 35 | 10 | 12 | 38 |

- (b) Quality Control Department

Closer investigation of the causes of plant stoppages shows that, apart from factors associated with the plant or equipment itself, the majority of the stoppages are due to human factors in repair work and operation.

Furthermore, accidents occur repeatedly due to the same causes and no countermeasures are established in accordance with the results of the investigations to identify the causes of problems. It is essential to establish a Quality Control Department in order to eradicate plant accidents completely and improve the quality of repair work.

Quality Control should be originally developed as the whole company movement in the same way as Safety and Health Control.

In the case of TES4, the Quality Control Department should be established at first under the direct control of the Vice President for the Quality Control of production division in a narrow sense to improve the quality of plant operation and repair work.

The concrete action of Quality Control Department is to make the system to eradicate the accidents in the Operation Department and the faults in the Repair Department as the staff of the Vice President.

Both Operation and Repair Departments including the concern sections should get out of the Breakdown Maintenance and shift to the Preventive Maintenance to obviate plant problems.

The incidence of plant stoppages by causal factor in 2000 is shown in the table below.

Table 6.1-2 Incidence of Plant Stoppages by Causal Factors in 2000

| | <i>Human Factors</i> | | <i>Equipment-related Causes</i> | | <i>External Causes</i> | <i>Total</i> |
|---------------------|-----------------------|--------------------------|---------------------------------|----------------------------|------------------------|--------------|
| | <i>Repair-related</i> | <i>Operation-related</i> | <i>Main equipment</i> | <i>Auxiliary equipment</i> | | |
| Number of stoppages | 24 | 48 | 64 | 41 | 25 | 202 |
| Ratio (%) | 11.9 | 23.8 | 31.7 | 20.3 | 12.3 | 100 |

4) Points at issue on the Organization of the Operation Sections

The provisional organization has six operation sections: the Fuel, Boiler, Turbine, Electric, Control and Instrument, and the Chemical Sections. These sections have an organizational status parallel to that of the Operation Department and come under control of the Chief Engineer and Deputy Chief Engineer.

Each operation section consists of operating and repair groups. Apart from ensuring steady equipment operation, they are also responsible for the repair work to deal with the equipment failures encountered in the daily operating practice.

The role of the Operation Department is to give the daily operation schedules to all the operation sections for electric power and thermal energy supply. The primary object of the Operation Department is to steadily supply electricity and heat to the consumer on schedule as the production managing department, but it has no direct responsible for repair of equipment.

The following points of issue occur from the existing organization of the Operation Department and each section.

- (a) The Operation Department follows the principle of 'Production First'. Its main concern is to achieve the electricity and heat supply schedules. It is therefore, little concerned about the repair work carried out by each operation section.

(b) For this reason, each operation section tends to put equipment into operation without completing the repair work properly. As a result, the operation sections are not able to maintain steady operation over a long time and the equipment has to repeatedly go through start and stop cycles. Those cycles add to the problem of accelerating equipment wear and early aging of the plant. Furthermore, the operational performance results of each operation section directly affect their special bonuses to be paid monthly basis and at the end of the year. This is another promoting factor to the principle of 'Production First' leading to the postponement of repair work.

(c) The functions of the operation and repair groups of each operation section are subdivided excessively.

For example, as the organization chart of the boiler operation section shows (Fig. 6.1-4), the persons in charge of boiler operation are divided into 2 groups of 10 teams, and the persons of repair work into 7 teams. This is too many small teams to use the workforce effectively.

While demarcating work functions simplifies the work, it leads to the need for more personnel and administrative staff members. The specialization of work narrows down the scope of work and takes away the mobility of manpower in a section or a department.

It diminishes the ability to cope with changes in the market and strips the activity of organization.

Consequently, it is necessary to integrate and reorganize the manpower that are now split into highly specialized teams in each operation section to make more effective use, thus reducing the over staffing.

(2) Proposal for an Improved Organization

As the transfer of TES4 into the Corporation will go into full effect in April 2002, we propose the attached organizational chart for reference (Refer to Fig. 6.1-3) that takes the above points into consideration.

- 1) The Finance and Procurement Departments should come under the direct control of the second Vice President. The Personnel Section, Welfare Section (Canteen, Hospital, Stock Farm), the General Affairs Section, and the Marketing Section should come under the supervision of the General Affairs Department and the second Vice President should exercise direct jurisdiction over them.

The production division, the engineering division and administrative works should be placed under the authority of the two Vice Presidents in order to alleviate the work of the President.

- 2) The Corporate Planning Department should vigorously support the operation of the power plant as the Presidential staff department with reinforcement of its personnel.
- 3) A new Safety and health Control Department should be established as the Presidential staff department. It should rigorously implement safety and Health control at the work place. As eradicating worker accidents must be a major priority issue for TES4, the Safety and Health Control Department should function under the direct control of the President. It should vigorously support the President who has supreme responsibility for safety and Health management to create safety and clean work place environment.
- 4) In order to enhance the quality of the Operation and Repair Departments, a new Quality Control Department should be established as the first Vice Presidential staff to upgrade the quality of repair work and eradicate operating errors and also to reform the workforce's awareness of TES4.
- 5) The repair groups that are arranged in each operation section should be brought together in the Repair Department for unified maintenance of TES4. The Repair Department should be responsible for placing orders with outside contractors for major overhaul and execution management. They should also take charge of daily repair work in the operation sections and should make maintenance in a more rational way.
- 6) Each operation section that has transferred their repair groups should be exclusively responsible for the administration of the operation of their respective equipment. The Operation Department should concentrate its effort on managing all operation sections to integrate and coordinate them for upgrading safety and steady operation of equipment, thus obtaining high efficiency for saving costs with exclusive responsibility.

(3) Effects of unifying the repair groups in the Repair Department

In view of the problems discussed in the previous sections (2) 5) and 6), it is proposed that the workforce of maintenance distributed in each operation section at present should all be transferred to the Repair Department in order to bring the entire maintenance work of TES4 under the control of one department.

Unification of the Repair groups has the following effects:

- 1) It is made clear that the Repair Department is exclusively responsible in the company for all the repair work. At present, the faults of repair work done by the various repair groups are not open to all of the sections and departments because the repair groups also work in the operation sections. Once the operation and repair work are clearly divided into the Operation Department and the Repair Department, these faults due to the poor repair work can be disclosed, and help both departments to activate by a restraining influence.

- 2) The role of the Repair Department is equal to that of the Operation Department.

A power plant as a process industry cannot be successfully managed without keeping the equipment in good working order. This point is vital for ensuring steady operation and reliable management. Consequently, management of the power plant requires a proper balance between maintenance and operation.

- 3) By unifying the maintenance groups into a single department, we are able to bring up multi-skilled workers, with a more efficient employment of personnel. As a result, surplus personnel can either be used more effectively or can be reduced.
- 4) By centralizing management of all parts, materials and tools needed for repair work, it is possible to reduce inventory levels and make more efficient use of them.

(4) Proposing the Company Split-up

TES4 has tried to split a part of its business into subsidiaries in order to activate the organization.

In detail, the maintenance business company MEZ and the Energy Service company, which takes care of cleaning in TES4, were established as independent subsidiaries in 1998. This division led to a reduction of the power station's total workforce from around 1,700 to 1,400.

As these subsidiaries were both established without any preparatory period for the split-up, their administrative costs went up rather than down. It was not possible to achieve the expected cost savings from the split-up. This has increased the burden on TES4 as the parent company and the merits of the subsidiaries were not realized.

The divisions of TES4, such as the Stock farm, the hospital, and the canteen, should be made independent according to the latest plans. The Stock farm is already in the process of selling off some animals and is gradually shrinking in scale.

Apart from the pasture farm, however, it has to be noted that the hospital and the canteen need to be in service during the night, and their workforce is only a small share of the total. In view of this, it would appear that making them independent subsidiaries would not have such a great effect on TES4.

The reason why organizations are better split into subsidiaries is to provide the organization with flexibility in responding to the changes in the market. This prevents the organization from becoming too large and inflexible to react to the changes.

In this sense, the establishment of MEZ and Energy Service as subsidiaries companies was certainly a good innovation. However, the organization and systems after the division could not be slimmed and trimmed to enhance the flexibility of the organization.

However, the Repair Department will still be highly eligible to establish from TES4 as a subsidiary in the future.

The Repair Department has high potential to conduct the repair work for TES2, THE3 and some other regional Power Plants. Even if it were separated from the parent company, it would still be able to do business on its own.

As for the timing of the split-up into a subsidiary, however, it is important not to rush it. Sufficient time must be allowed for preparation.

When the Repair Department is reorganized in the future, it will be necessary to consider the following points in view of the company split-up.

- 1) The Repair Department should be earmarked as the split-up candidate from TES4.
- 2) The Repair Department should establish personnel, capital and revenue/expenditure plans of its own from the preparatory stage and operate on an independent management basis in TES4 organization just like an independent company.
- 3) The personnel plans are particularly important for the Repair Department. The organization plan after split-up should be made in advance during the preparatory period in TES4. The persons of administrative position such as general affairs, accounting, engineering, and sales areas should be appointed from the capable persons who are in the ranks of the top or second position in capability in all departments.

It will also be necessary for TES4 to establish some long-term plans so that the Repair Department may acquire the power of its competitiveness, capability of survival and excellence in the same type of business field under the market economy during the preparatory period in TES4. It should be desirable to split up as a subsidiary in three to five years time.

Once this independent Repair Subsidiary is on course and becomes profitable under its own management by winning orders for repair work not only from TES4 but also from other domestic and foreign companies, it would be highly expected that part of its profits might flow back into TES4.

After the Repair Department is established, about 500 or more of the personnel related to the repair work should be transferred to this subsidiary (Refer to Table 6.1-3). TES4 organization should then become more flexible in responding to the changes of the market and the social environment thanks to the personnel reduction.

6.1.2 Job Assignment and Responsibility

The restructuring of the organization will make the framework for corporate operation. But the creation of this framework would not automatically raise work motivation among the employees. It will be essential to create a workplace environment to foster working motivation for each employee, to become a profitable and productive organization.

(1) Present Status and Points of issue of Job Assignment

- 1) There is at present no formal job assignment as the distribution of office duties, but the basic rules are available at each department and section.

The details of this work rules are quite concrete and the job descriptions of each person in charge have been defined very specifically and the demarcations are specified with excessive detail.

In case that the demarcations are too distinct, responsibility will have to be determined for borderline work between the departments or sections. This diminishes work efficiency and some more members of management will be needed.

The responsibilities of the members of departments or sections are defined by specifying the job descriptions. They will be called to account in case they do not fulfill the jobs assigned.

In principle, the responsibilities of each department mean that the members of a department have to take the responsibility for the overall result of the department. This does not mean that they should take the responsibility only when they have neglected any duties that are specifically defined in their job descriptions.

As departmental power is stated in the basic work rules, these descriptions merely itemize specific powers such as the authority to convene meetings or to demand the submission of reports. In principle, the necessary powers should be conferred on each department so that it can fulfill its functions. The department should exercise its functions based on these powers and take responsibility for the results.

- 2) Lack of Definition of the Operation Department's Responsibility for repair work

The duty of the Operation Department is to achieve the targets given by top management with product instructions to each operation section, which account for about 80% of the entire workforce. This department has great authority, but their responsibilities are rarely described in its work rules.

The Operation Department has the authority to summon all operation sections to draw up plans for repair work, but the responsibility for executing repair work rests with each operation section including responsibility for budget control.

The Operation Department has neither budget nor direct management responsibility for repair work.

For this reason, the instructions of the Operation Department are apt to focus only on production and tend to lack concern for maintenance or repair work.

- 3) The basic attitude of managers is to preserve the status with little awareness of any role for reform or innovation.

All basic rules are given from top management and their priority is only to fulfill defined tasks as given by the rules. The managers of each department and section are not given any functions that would motivate them to try and innovate things with a view to the company's development in future beyond the present limitations, for example, to try to improve the company's profitability.

They have little awareness of any role for improvement or innovation.

- 4) There are agreements between each operation section and the power plant to supplement the job assignments.

Under the instructions of the Energy Authority, each operation section has to sign an annual agreement with the power station's top management effective from March 2000. These agreements specify their respective tasks in detail. An attempt has been made so that each operation section may execute its tasks with a strong sense of its own responsibility. However, these agreements do not specify numerical targets to be achieved and do not differ much in content from the basic work rules.

(2) Improvements in Job Assignment

The basic work rules of each operation section as the job assignment are very specific in content, the functions of each section and the mutual relations between each section are not defined.

In this context, we propose the following suggestions when the job assignment specifications are prepared.

- 1) Apart from the existing basic work rules, new job assignment specifications should be established and the mutual relations between each department defined.

Its content should be limited to some general expressions for solving the borderline problems voluntarily by employees of the related departments and sections that are not specifically included in any job assignments. Demarcation disputes between departments or sections will be eliminated using such expressions.

- 2) Each department and section has to review the existing basic work rules based on these new job assignment specifications and make them more concrete for use as the work rules and regulations in each department and section.
- 3) The work agreements between each department or section and the power plant should be abandoned and yearly plans for each department or section should be established with clearly defined numerical targets. These plans and targets have to be linked to the annual targets set beforehand by the top management, namely, an objectives management system should be developed in the company and all departments or sections must totally commit themselves to achieve the targets in cooperation with top management.
- 4) The present system excessively concentrates decision-making powers on the top management, which has a very heavy burden of responsibility.

Since the top management is not fully knowledgeable about every field in the company, it is essential to move a little more away from the top-down approach to a bottom-up approach. Powers and authority should be delegated to the managers of subordinate organization as well as responsibility and accountability.

The top management should share more of the powers and authority with the department managers and give them specific responsibilities at the same time, so that the top management may be free from mundane duties and can concentrate on their proper functions.

The job assignment specifications and basic rules make it clear “who should take responsibility for executing the work functions.”

Even if the specifications and rules define the transfer of power or authority, it does not mean that each department will act in the best manner in accordance with objectives of the company.

Consequently, it is essential for the top management to create a regular reporting system, whereby they receive precise information of the site at all times from each manager. Reviewing these reports, the top managers have to give appropriate orders or instructions to the managers. The top management cannot escape its responsibility for the decisions made by each department manager even if they have transferred or delegated power or authority to subordinates.

6.1.3 Communication

As the division of authority by delegation and transfer entails decentralization of information in the company, decisions are made not only by the top management, but also by all departments concerned through discussions. This will enable the organization to make decision based on accurate information much closer to the work place at an early stage.

In order to achieve this system, however, various departments and sections should share certain information at any one time. Therefore, effective communication between departments is very important and it should be obtained in the form of written statements or through meetings.

To promote horizontal communication across departments, it is essential to complete an information system such as a LAN system as soon as possible as it is currently promoted at TES4.

(1) Regular Meetings

The regular meetings at TES4 take place in accordance with the regular meeting schedule. (Refer to Table 6.1-4)

Coordination among all operation sections takes place at the technical communication meetings held on a daily basis. All managers of all operation sections are present.

At the morning meetings, the operational status of the previous night is reported by the shift engineer. At the afternoon meetings, the operational adjustment up to the following morning is discussed. The results of these meetings are informed to all members by the section manager at the internal meeting and each section takes care of its operational management.

There are various other regular meetings such as the meetings promoted by the president, the engineers' meetings, and the meetings of the labor union representatives.

The general impression is that the meetings are generally held in a top-down style without free and spontaneous exchange of opinions. As a result, the decision does not reflect the views and opinions of the participants in such meetings.

It is therefore necessary to create the opportunity and atmosphere free exchanges of opinions in the meetings to ensure that the decisions will reflect the opinions of the participants. An atmosphere must be created so that everybody may be encouraged to have a sense of participation in the meetings and decision-making responsibility.

(2) Review and management of Rules

The basic technical regulations including rules on the safety and steady operation of plant and administrative rules are issued by the Technical Department of the Ministry of Infrastructure.

The National Financial Management Bureau also prepares the management rules. It gives directions on a range of administrative details, such as instructions on basic pay, safety management and training.

As occasion demands, each power station issued its own detailed rules in accordance with these

directions within the president authority, but did not come up with any detailed regulations from an independent standpoint due to the government regulations.

It is also very rare to regularly amend or modify the existing rules to adapt them to present circumstances. Only when facilities or equipment are modified on a major scale or new equipment is added are the existing rules amended.

It is difficult under present conditions to amend the existing rules to something more suitable to the present circumstances for the power plants because of the rules issued by the government.

To enhance the independence of each electric power system by transfer to a National Joint-Stock Corporation, government authorities relating to the power system such as the Ministry for Infrastructure or the National Financial Management Bureau should review the relevant regulations themselves based on a market economy.

The major question to be solved is to what extent independence and freedom of discretion will be given to the Corporations by the government in future.

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