

Human Resource Development of the Engineers and the Technical Staff of Mitsubishi Mining Corporation

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論 文

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1. Foreword

Research into the labor history in Japan's coal mines and mining industry has captured the interest of researchers for many years. A large number of research results on this subject have already been published. Most of this research has focused on miners. Workers employed to work underground in coal mining and metal mining companies (hereinafter referred to collectively as mining companies) in Japan are known as miners, and they are considered to be in a separate category from the people who mine independently. Miners mostly consisted of former farmers who left their home towns and gravitated to coal mines or other mines because of poverty. Owing to this, they were considered to be social outcasts and their social standing was ranked at the lowest level. On the other hand, these miners observed their own characteristic work and lifestyle customs and nurtured a unique culture to create their own type of community. The miners also established Japan's strongest labor union in the aftermath of World War II when the country was democratized. It is these many unique characteristics of the miners that have attracted the attention of so many labor history researchers and resulted in so many research papers being published.

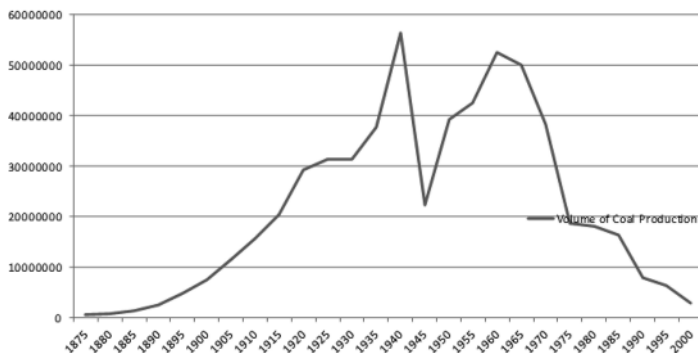
In contrast to this, very little research has been carried out on mining engineers and other employees. A likely reason for the lack of research on these people is the fact that the staff of coal mines and metal mines (herein-

after referred to collectively as mines) were considered to consist of people who had completed tertiary education and to be a privileged rank within the mining communities, although this view differs from the facts made clear in this paper. One of the few pieces of research on this subject is “*Tanko no Rodo-Syakaishi*” (Socio-Labor History of Japanese Miners in Japan)¹, written by the author. This book clarifies the fact that mine operators and the miners’ bosses who had gained their knowledge of mining solely through practical experience during the industrial revolution at the end of the 19th century played an enormous role in the development of coal mines, that it came to be argued at this time that engineers who had completed tertiary education finally seized leadership in coal mine development at the beginning of the 20th century, that it was claimed at this time that the supervisors, who were known colloquially as “small-heads,” most of whom had been promoted from the ranks of miners, needed to be replaced with people who had received secondary engineering education, and that the process of this changeover progressed between the two world wars, supported in part by in-house training for supervisors. However, this research was based on the limited amount of documentation available at that time, and its analysis was only fragmentary. This paper is based on information acquired from a new historical study of Mitsubishi Mining Corporation and intends to empirically elucidate how Mitsubishi Mining hired, trained and nurtured its engineers into a capable workforce.

2. Overview of the History of Coal Mining in Japan and the Characteristics of Human Resource Management of Coalmining Companies

First of all it probably is necessary to take a broad overview of the process of development behind coal mining in Japan in order to have the prerequisite knowledge to understand the analyses provided by this paper. In

1 Ichihara Hiroshi “*Tanko no Rodo Syakaishi*”, Taiga Shuppan, 1997



Source: Sekitan Seisakushi Hensan Inkai (The Editing Committee of the History of Coal Policy) “Sekitan Seisakushi Shiryoheon” (The History of Coal Policy, Data Book), Agency of Natural Resources and Energy, 2008,

Figure 1 Volume of Coal Production

Japan, local people were gathering coal from the end of the 17th century, but it was not until the new Meiji government, which was established in 1868, began mine development efforts using Western technology that the coal mining industry really started to develop. The period from the latter half of the 1880s through to the beginning of the 20th century is considered the age of Japan’s industrial revolution, and this period saw a rapid increase in coal production, as can be seen in Fig. 1.

The amount of coal mined and the number of lminers employed increased dramatically during World War I when Japan’s economy experienced high levels of growth, but the Japanese economy went into a lengthy depression in the 1920s, and this together with an increase in coal imported from China resulted in Japan’s mining industry grinding to a halt.

Although machinery was used to underground water and hoist coal in Japanese coal mines up until this period, the actual mining process and coal haulage within the pits were not mechanized. Coal was mined using the post-pillar mining method, and it was normal for a single married couple to excavate the coal from each of many coal faces distributed throughout the pit. The result of this was that the size of the mines expanded and the

amount of coal extracted increased, but there was very little increase in the coal mined by each miner. The coal mining companies realized in the 1920s that it needed to reduce costs in order to cope with the slump in the coal market, so it introduced new technology. This is especially notable while the industry was suffering from the effects of the Great Depression. This resulted in nearly all of the major coal mines extracting coal with the use of the long wall mining method in the early 1930s. This entailed 20 to 40 miners working together on a single coal face, lengthened to 30 to 100 meters in length. In addition to coal picks, coal cutters were also used to mine the coal, which was then hauled on conveyor belts within the pit. As can be seen in Fig. 2, this led to a rapid increase in the amount of coal each miner could excavate during this period².

Mitsubishi Mining, which is the subject of this paper, was originally the Mining Department of Mitsubishi, one of Japan's leading groups of enterprises (*zaibatsu*). It became independent and established itself as a limited company in 1918. It was one of Japan's largest mining companies and boasted a production rate that accounted for roughly ten percent of all coal mined in Japan, as is shown in Fig. 1. All of its coal mines were located in the major coal fields of Kyushu and Hokkaido, including the Takashima Mine, which was the first mine in Japan to be developed with the use of Western technology. It also operated metal mines, including the Sado Gold Mine and the Osarizawa Copper Mine³. For explanatory purposes, this paper also refers to the Mitsubishi Zaibatsu's Mining Department prior to it becoming a limited company as "Mitsubishi Mining."

Before Japan being defeated in World War II and the nation becoming a democracy, the basic framework of human resource management systems in

2 Ichihara Hiroshi, *ibid.* Ogino Yoshihiro "Chikuho Tanko Roshi Kankeishi" (The Labor Relations in Chikuho Coalfield), Kyushu University Press, 1993

3 Mitsubishi Mining and Cement Ltd "Mitsubishi Kogyo shashi" (The Corporate History of Mitsubishi Mining), Mitsubishi Mining and Cement Ltd, 1976

Japanese companies involved employees being divided into some status, with the jobs that they were assigned to and the way in which they were treated being determined by these status. The ranks assigned to each individual employee were set in accordance with the level of school from which they had graduated. Owing to this, this human resource management system is known as “the educational status system”. People who had graduated from tertiary education institutions, such as universities and industrial polytechnics, were employed as high-ranking staff who received monthly salaries, and graduates of secondary-education institutions, such as technical schools and commerce schools, were employed as low-ranking staff. Some of these workers received salaries on a monthly basis, while others were paid on a daily basis. On the other hand, the workers who had completed only a primary education were employed mainly as manual workmen and paid a daily wage. There were huge discrepancies between these statuses in terms of prestige and pay⁴.

Mitsubishi Mining also used the educational status system as the framework of its human resource management system. The plan was for workers who had completed tertiary education to be hired at the head office as high-ranking staff and workers who had received a secondary education to be hired at the mines as low-ranking staff. Workers who had only received an primary education would be employed as miners and workmen. However, one of the main features of Mitsubishi’s human resource management system was that the so-called “small heads,” equivalent to foremen who were included in the status of workmen at manufacturing companies, were positioned at the very lowest status level of staff hired at the mines.

4 Ichihara Hiroshi, “*Jinteki Shigen no Keisei to Mibun Seido*” (The Training of Human Resources and the Status System), in “*Koza Nihon Keieishi*” (Japanese Business History) Vol. 2, 2010

3. Mine Management Structure and Staff Assignments

First of all, we investigated the management structure in Mitsubishi Mining's coal mines and the numbers of employees assigned there, by type. We were able to obtain information relating to this from the practical training reports that students studying mining in university faculties of engineering wrote and submitted to their universities. Students studying mining at Japanese universities were obliged to gain practical experience in mines during their final summer vacation, and the reports they wrote on this are used as historical data containing extremely valuable information.

The reports of several students who received practical training in Mitsubishi Mines describe how the organizations of management in coal mines at the beginning of the 20th century consisted of several functional branches. For example, the students who received their practical training in 1904 at the Shinnyu Mine, which was one of the major Mitsubishi Mining mines in the Chikuho coal field, stated that ten branches of clerical work, calculations, supplies, building and repairs, underground and overground work, supervision, coal haulage, mechanics and surveying were assigned to the main No. 1 pit, that seven branches directly related to coal excavation, excluding the branches of clerical work, calculations and supplies, were assigned to the other pits, and that the majority of staff were assigned to the No. 1 pit with no more than about 10% of the total number of staff being assigned in underground branch that was in charge of supervising mining coal within the pit. The students also reported that despite the fact that the coal mines operated on a 24-hour basis, staff working underground did not enter the pit at night unless there was an accident, that they spent between five and six hours daily making their rounds underground, and that their areas of jurisdiction were not predetermined. The people who compensated for the laxity of the supervision of mining work by these staff and actually supervised the mining were the "small heads," a type of supervisors. There were twice the number of small heads as the staff of underground branch, and they were

each assigned coal faces where they decided on the anticipated amount to be excavated from each coal face, supervised the work of the miners, and reported to the staff on the conditions of the coal faces. Calculating from the total number of small heads and miners, it is estimated that each small head was in charge of between 15 and 20 coal faces⁵. One supposes that supervising the miners spread out between the many coal faces scattered underground in the pitch darkness was not an easy job for the small heads.

According to the practical training reports on the Shinnyu Mine for 1909 and 1914, people who had completed tertiary education and been hired by the head office were appointed as the pit managers and the chiefs of the branches, while people who had graduated from polytechnics and been hired by the head office and those who had completed secondary education and been hired by the mines were appointed as staff in each branch, to which were assigned staff hired by the mine who had been promoted from the status of miners, with the small heads, who were greater in number than them, receiving their instructions from them. It is also possible to confirm that similar staff structures were used in other mines in the Chikuho coal field and in the Karatsu coal field⁶.

5 Nakajima Michisiro “*Shinnyu Tanzan Hokokusho*” (The Report of Shinnyu Coal Mine), The Practical Training Report for Tokyo University Faculty of Engineering, 1904, pp 141–143,

6 Kisanuki Kosaku “*Shinnyu Tanko Dai4ko Hokokubun*” (The Report of No. 4 Pit in Shinnyu Coal Mine), The Practical Training Report for Tokyo University Faculty of Engineering, 1909, p 101. Ohkawara Taijiro “*Shinnyu Tanko Dai1ko Hokoku*” (The Report of No. 1 Pit in Shinnyu Coal Mine), The Practical Training Report for Tokyo University Faculty of Engineering, 1914, pp 141–142. Kuboishi Ishitaro “*Mitsubishi Gosi Kaisha Hojo Tanko Hokoku*” (The Report of Hojo Coal Mine of Mitsubishi & Co., Ltd), The Practical Training Report for Tokyo University Faculty of Engineering, 1912, p 95. Ogata Norisuke “*Yoshinotani Tanko Hokoku*” (The Report of Yoshinotani Coal Mine), The Practical Training Report for Tokyo University Faculty of Engineering, 1915, p 135.

One of the main duties of the staff hired by the head office was to secure the safety. The minutes of a conversation among former Mitsubishi Mining staff held much later are full of recollections of efforts to secure the safety. The minutes of this conversation also indicate that another important duty for them was to adopt new technologies that entered Japan from advanced countries and draft mine development plans that utilized this technology⁷.

The majority of small heads who directly commanded the miners and supervised coal mining work were promoted from the status of miners. However, the view began to be pointed out during World War I that there were deficiencies in their training methods. This opinion criticized the small heads, who lacked scientific knowledge, as lacking sufficient capability, and it was argued that people who had received a secondary education should be hired as small heads⁸.

4. Employment and Training of Engineers and Technical Staff Hired by the Head Office

(1) Promotion of Staff Hired by Mines to the Status of Staff Hired by the Head Office

As mentioned earlier, the framework of the company's human resource management system has been considered to be an educational status system that favored people who had completed tertiary education as staff hired by the head office and people who had completed secondary education as staff hired by the mines. However, Table 1, which was created with the use of

7 Mitsubishi Mining “*Mitsubishi Kogyo Semento Shashi Hensan Zadankai Gijutsu (komu) kankei*” (The Round table Conference for Editing the Corporation History of Mitsubishi Mining on Mining Technology), 1973, November, 6, in Mitsubishi Mining and Cement Ltd “*Zadankai Komu Kankei (Ippan Kyushuchiku)*” (The Round Table Conference on Management of Mining, Kyushu Area)

8 Kato Kan'ichiro “*Mitsubishi Namazuta Tanko Hokokusho*” (The Report of Mitsubishi Namazuta Coal Mine), The Practical Training Report for Tokyo University Faculty of Engineering, 1933, p 133

Table 1 The Number of Upper Staff of Graduates of Tertiary Education and of Secondary Education or Lower Level of Education

engineers				Upper Staff			
	newly employment	promotion	ratio of promotion		newly employment	promotion	ratio of promotion
1918	57	58	50.4	1927	13	51	79.7
1919	37	42	53.2	1928	36	63	63.6
1920	14	25	64.1	1929	62	50	44.6
1921	4	24	85.7	1930	37	16	30.2
1922	4	8	66.7	1931	33	14	29.8
1923	6	9	60.0	1932	25	10	28.6
1924	4	24	85.7	1933	22	55	71.4
1925	18	20	52.6	1934	63	54	46.2
1926	12	20	62.5	1935	97	68	41.2
total	156	230	59.6	1936	179	57	24.2
				1937	288	71	19.8
				total	855	509	37.3

Source: Mitsubishi Shashi Kankoukai (The Publishing Committee of Annual Reports of Mitsubishi & Co., Ltd) "Mitsubishi Shashi" (The annual Reports of Mitsubishi & Co., Ltd) each year.

employment records for staff hired by the head office, indicates that many of the engineers, who were ranked as staff hired by the head office, were people who had been promoted from the ranks of junior engineers, who were staff hired by the mines. The percentage of people employed as staff hired by the head office who had been promoted from staff hired by the mines was more than 50% every year from 1918 through 1926. While the figures for people promoted from staff hired by the mines from 1927 onwards include clerical staff, they still indicate that the ratio of promoted personnel remained high. Although the number of people promoted decreased during the Great Depression, it increased once again during the period of post-depression economic recovery.

The fact that promotions from staff hired by the mines all occurred on cer-

tain specific days three or four times a year indicates that their promotions were implemented in accordance with company regulations. The details listed on their promotion recommendation letters submitted from the coal mines to the head office included name, personality and temperament, ideology, characteristic behavior, appearance and physical size, way of speaking, ability to understand foreign languages, academic results, family financial situation, names of connections in coal mines, most suitable job, and overall evaluation⁹. The head office would then initiate a strict investigation based on this information in order to decide which individuals to promote.

(2) Commencement of Practical Training for People who had Completed Higher or Secondary Education

As mentioned before, in the Japanese coal mining industry in the 1920s efforts were made to improve productivity through technological innovations centering on coal extraction. It is supposed that the role of people who had completed tertiary technical education and had led the adoption of new technology was greatly increased. A system was implemented to provide these people with practical training immediately after hiring in order to improve their skills. A policy to implement practical training in metal mines and coal mines for a period of up to 18 months for staff hired by the head office and a period of up to two years for staff hired by the mines was proposed and accepted by the Conference of General Managers of Metal Mines and Coal Mines (hereinafter referred to as the General Mine Manager Conference) held in 1921¹⁰. In 1923 in accordance with a decision by its parent company, the Mitsubishi Zaibatsu, Mitsubishi Mining also adopted a system in which people who had graduated from universities and polytechnics would be

9 Somu Kacho (The Chief of General Affair Section), "Jun'in Shokaku Moshitate no Ken" (On the Application for the promotion of Junior Staff), 12th, October, 1922 in Mitsubishi Kogyo (Mining) "Kyu Mitsubishi Kogyo Kaisha Kisoku (Jinji)" (The Former Regulations of Mitsubishi Mining, Personnel Administration"

given three or more months, and people who had graduated from secondary schools six or more months, of practical training as trainees. Each of these trainee periods was doubled in 1927¹¹.

(3) The Academic Qualifications and Careers of Engineers

We prepared a database of the names, dates of employment, initial salaries, assigned mines and assigned duties of engineers hired by the head office using quadrennial employee records and employment records of staff hired by the head office for the period from 1910 through 1934. When available, we also added to this database details on the schools they graduated from and their majors. The number of people recorded amounted to 1,030 people.

An analysis of this database revealed first of all that the engineers were employed continually in specific functions, and extremely few of them were moved to other functions. The engineers assigned to coal extraction-related jobs remained in coal extraction-related jobs for 90% of their careers, and the engineers assigned to mechanical jobs spent 90% of their careers operat-

10 Mitsubishi Mining “*Taisho10nen Syuki Bashocho Kaigi Gijiroku*” (The Minute of the General Mine Managers Conference in Fall in 1921), in “*Bashocho Kaigi Taisho10nen Syuki*” (The General Mine Managers Conference in Fall in 1921)

11 “*Oboegaki Minarai Toriatsukaikata*” (A Memorandum The Treatment of Trainees) 15th, March, 1923 Somu Kacho (The Chief of General Affairs Section) “*Gakko Sotsugyosha Toriatsukaikata Kaisei no Ken*” (On an Amendment of the Treatment of Graduates) 21st, March, 1923 in Mitsubishi Mining “*Kyu Mitsubishi Kogyo Kaisha Kisoku (Jinji)*” (The Former Regulations of Mitsubishi Mining, Personnel Administration), “*Minarai Toriatsukaikata*” (The Treatment of Trainees), 1st, March, 1927 “*Minarai Toriatsukai Oboegaki Narabini Gijutsu Minarai Kun'iku Hoho Sonota Gosofu no Ken*” (On Sending a Memorandum of the Treatment of Trainees and the Training of Technical Trainees and Others) in Mitsubishi Mining “*Kyu Jinji Kisoku Fu Romusha Bitetsu Jinji*” (The Former Regulations of Personnel Administration Appendix, Workers Bibai Railway Personnel Administration)

ing and repairing machinery. At the same time, they often moved between mines. Very few engineers spent their entire careers in a single mine, and the majority had experience at working in several mines.

The engineers hired by the head office consisted of people who had graduated from universities and polytechnics and staff hired by the mines who had been promoted. It is clear from our analysis of this database that the academic qualifications possessed by these workers had an enormous effect on the jobs they were assigned to and the positions to which they were promoted. Most of the engineers assigned to the head office's engineering department, which was mostly in charge of mine development and adopting new technologies, were university graduates, and polytechnic graduates were exclusively assigned hands-on jobs in the mines. Also, most of the mine captains and deputy mine captains of coal mines were university graduates, with polytechnic graduates being assigned the position of deputy mine captain only in exceptional cases.

5. The Abolishment of Assistant Staff and the Start of Company Training of Supervising Staff

(1) The Initiation of Policies to Abolish the Rank of Assistant Staff and the Establishment of Trainee System for Staff Hired by the Mines

The lowest-ranked staff known as "*koin*" such as the "small head" who directed and monitored coal mining work directly and "*Kanryo*" whose duties included supervising the weighing of the coal extracted at each coal face were assigned the status of "assistant staff" in 1916. At that time a system was introduced in which these assistant staff could be promoted to the staff hired by mines if they were deemed to be sufficiently capable. The focus of reforms to staff human resource management systems enacted in the 1920s was placed on abolishing this status of assistant staff and changing the overall character of the supervisors.

The earliest document to indicate that abolishing assistant staff was recognized as something that should be adopted by the entire company as part of

reforms to staff human resource management systems was found in a message sent by an executive director to all general mine managers on April 2, 1921. The executive director used this message to inform the general mine managers, who had authority to hire assistant staff, that the position of assistant staff was to be abolished for the purpose of simplifying the administrative organization and reducing the workforce in order to cope with the sluggish coal economy that the company was facing at the time and that in order to avoid any conflict that a rapid change may cause it was not necessary to fire the current assistant staff but instead the ranks of assistant staff would be eliminated over time through attrition, by ceasing to hire new assistant staff and promoting capable assistant staff to the ranks of staff hired by the mines¹².

Since the work that the assistant staff were carrying out would not disappear simply because their rank had been abolished, who to assign to their jobs was an important issue. This problem was debated during the General Mine Managers Conference held in the fall of that year. The debate led to it being decided to hire new people to handle the work the assistant staff had been performing as trainee staff hired by the mines¹³. The result of this was that a single mine would contain both remaining assistant staff and newly hired trainee staff hired by the mines, who handled the same duties but differed in status. The issue of the confusion that this caused was raised at the General Mine Managers Conference the following year, and it was decided to hire as apprentice staff hired by the mines only people who showed the potential for being promoted to staff hired by the mines¹⁴.

As previously mentioned, the status of staff hired by the mines was available only to secondary school graduates. This decision can therefore be inter-

12 The Executive Director “*Yoshiho Haishi ni Kakawaru Ken*” (On the Abolition of the Assistant Staff), 2nd, April, 1921 in Mitsubishi Mining op. cit. “*Kyu Mitsubishi Kogyo Kaisha Kisoku (Jinji)*”

13 Mitsubishi Mining op. cit. “*Taisho10nen Shuki Bashocho Kaigi Gijiroku*”

preted to have been intended to replace assistant staff, who mostly had been promoted from miners who had completed elementary education, with graduates of secondary schools. But in fact this replacement did not move ahead smoothly. We found the bylaw prepared in the 1920s specifying the procedures for hiring elementary school graduates as trainee staff. This bylaw suggests that the elementary school graduates were given training inside the company in order to nurture them into the staff hired by mines¹⁵.

(2) The Start of In-house Training for Supervising Staff

In the latter half of the 1920s, a system was started in which promising young miners were trained within the mines and then promoted to supervisors. The reason why this system was inaugurated was because the shortage of supervisors had worsened. The Mining Inspection Regulations revised in 1916 stated that it was necessary for any of the following conditions to be met with regard to underground supervising staff: (1) They must be university or polytechnic graduates; (2) they must have received at least one year's technical training at secondary schools and at least one year's practical job experience; (3) they must be secondary school graduates who have received at least two year's practical job experience; or, (4) they must be elementary school graduates who have received at least three year's practical job experience. In the General Mine Managers Conference held in September 1926, the general manager of the Bibai Mine in Hokkaido explained that it would

14 Mitsubishi Mining, "Taisho11nen Shuki Basyocho Kaigi" (The Minute of the General Mine Managers Conference in Fall in 1922), in "*Bashocho Kaigi Ji Taisho8nen Itaru Taisho12nen*" (The General Mine Managers Conference from 1919 to 1923)

15 "Shogakko Sotsugyosei Saiyo Naiki" (The Bylaw on Employment of Elementary School Graduates) 21st, March, 1925 "Nikkyu Kofu Shokyu Naiki" (The Bylaw on Wage Raise of Daily Wage Miners), date unknown, in Mitsubishi Mining "Taisho15nen Jinji ni Kansuru Shocho Tsutatsu" (The Notifications on Personnel Administration by the General Managers, 1926).

be difficult to hire underground supervising staff with the statuses of staff hired by the mine and assistant staff in accordance with these conditions and that coal mines in Hokkaido in particular had no choice other than to hire people lacking in practical experience or technical capabilities¹⁶. In a letter to the executive director two years later, he pleaded for higher wages for low-ranked staff who had graduated from schools at or below the secondary education level in order to alleviate the shortage of underground supervising staff. He wrote that the reason for the severe shortage of underground supervising staff was owing to the fact that there were very few technical schools to train them and that there were very few miners who had the potentialities required to promote them to supervisors¹⁷.

In order to improve the situation of this lack of underground supervising staff, attempts to train them within the company began. The executive director sent a message to all general mine managers on November 28, 1927, stating that they had no choice other than to train low-ranking underground supervising staff within the mines in order to solve the problem of obtaining them sufficiently and instructing them to select workers' children and graduates from upper elementary schools living nearby and provide them with practical training and teach them the subjects required for them to become supervising staff¹⁸. There are documents still in existence that indicate that

16 The General Manager of Bibai Coal Mine “*Bashocho Kaigi Teian ni Kakawaru Ken*” (On the Proposals to the General Mine Managers Conference), 27th, September, 1929 in Mitsubishi Mining “*Taisho15nen Syuki Bashocho Kaigi Gijiroku*” (A Memorandum of The General Mine Managers Conference in Fall in 1926”

17 The General Manager of Bibai Coal Mine “*Kakyu Kakariin Yugu ni Kakawaru Ken*” (On Better Treatment of Low Rank Staff) in Mitsubishi Mining op. cit. “*Kyu Mitsubishi Kogyo Kaisha Kisoku (Jinji)*”

18 The Executive Director, “*Kakyu Genba Kakariin Yosei ni Kakawaru Ken*” (On Training of the Low Rank Underground Staff), 28th, November, 1927 in Mitsubishi Mining “*Showa2nen Genbain Yosei no Ken*” (On Training of Underground Staff 1927)

in response to this message the mines examined plans for underground supervising staff training courses. In the Bibai Mine, a plan was created in which promising miners and capable young men who had graduated from upper elementary schools were chosen to receive between six months' and one year's training chiefly in maintaining safety but also to provide them with scientific knowledge in coal extraction, machinery and electricity and other necessary subjects, and they were to be put to work as trainees for one year after the training course had been completed so that the people who were evaluated as having the correct levels of excellence could be promoted to staff hired by the mine¹⁹.

In fact, this plan was later amended. In 1928 a training center for low-ranking underground supervising staff was established for promising miners²⁰. A total of fifteen people completed the first training course, most of whom were younger upper elementary school graduates in their 20s who had coal mining experience. Most of the people who completed the second training course were assistants to staff with the status of miners who were chosen from "good" miners²¹.

It can be shown that similar plans for training low-ranked underground supervising staff were created in the Chikuho and Takashima coal mines in Kyushu. The difference with these plans was that the people who completed the training courses were not planned to be employed as staff hired by the

19 General Manager of Bibai Coal Mine "Kakyu Kakariin Yosei ni Kakawaru Ken" (On Training of Low rank Staff), 2nd, February, 1928 in *ibid*.

20 General Manager of Bibai Coal Mine "Kakyu Kakariin Yosei ni Kakawaru Ken" (On Training of Low rank Staff), 2nd, March, 1928 in *ibid*.

21 Mitsubishi Mining "DaiIkai Kakyu Genba Kakariin Youseijo Hokoku" (The First Report of Low Rank Underground Staff Training Center, "Dai2kai Kakyu Genba Kakariin Yoseijo Syugyosei Seisekihyo" (The Second List of Trainee Grades in Low Rank Underground Staff Training Center), in "Showa2nen Iko Kakyu Genba Kakariin Yoseijo" (Low Rank Underground Staff Training Center after 1927)

mines but as assistant staff²². The Bibai Mine also decided to modify the system at the end of 1928 so that the people who completed the training at the above-mentioned training center were not promoted to staff hired by the mines but to assistant staff²³. In the 1920s a policy was decided on to abolish the system of assistant staff and train newly hired trainee staff hired by the mines to be regular staff hired by the mines, having these people serve as underground supervising staff. However, this policy was never enacted because the mines began efforts to train promising miners into assistant staff within the company.

(3) **The Abolishment of Assistant Staff and the Promotion of Miners to Staff**

The policy of abolishing assistant staff was reaffirmed in 1931, when the effects of the Great Depression were causing workforces to be reduced. In the General Mine Managers Conference held in the fall of that year, an executive director instructed that the number of assistant staff, who already had been abolished at several metal mines, be reduced gradually at coal mines as well, until the system was finally abolished²⁴. The corporate history of Mitsubishi Mining states that assistant staff were finally abolished in August of 1935²⁵. In a letter sent to the mine captains six months later, the chief

22 General Manager of Bibai Coal Mine “*Kakyu Kakariin Yosei ni Kakawaru Ken*” (On Training of Low rank Staff), 23th, February, 1928 in *ibid*.

23 General Manager of Bibai Coal Mine “*Yoseijo Sotugyosei ni Kakawaru Ken*” (On Graduates of Training Center), 5th, December, 1928 in Mitsubishi Mining “*Showa15nen Genko Bibai Kogyosho Kisoku (Jinji)*” (The Current Regulations in Bibai Coal Mine Personnel Administration 1940)

24 Mitsubishi Mining “*Showa6nen Syuki Bashocho Kaigi Sokkiroku*” (The Short-hand Note of the General Mine Managers Conference in Fall in 1931) in “*Bashocho Kaigi Gijiroku Tuduri Ji Taisho5nen Itaru Showa9nen*” (The Minutes of the General Mine Managers Conference from 1915 to 1934)

25 Mitsubishi Kogyo Semento Ltd, *op. cit.* p 300.

of general affairs department wrote that assistant staff had been abolished in all mines and, with a few exceptions, the staff hired at the mines were now hired from graduates of secondary schools who had joined the company as trainees. However, he also pointed out at the same time that many of the staff hired by the mines currently working continued to be people who had been promoted from miners and assistant staff²⁶. A large number of assistant staff had, in fact, been promoted to staff hired by the mines when the system of assistant staff had been abolished. According to the employment records of the people promoted to staff hired by the mine in 1934 at the Bibai Mine when assistant staff had been abolished, most of these were assistant staff who had graduated from upper elementary schools and were aged in their 30s or 40s²⁷.

The policy enacted in the middle of the 1930s in which the hiring of new underground supervising staff was restricted to staff hired by the mines who had graduated from secondary school was turned around soon. The promotion of miners and workmen who had graduated from elementary schools to staff hired by the mines was restarted at the end of the 1930s and their numbers grew. It can be confirmed from existing records that the Bibai Mine promoted 10 people to staff hired by the mine in November 1938 and 33 in 1939. All of these had been promoted from miners and workmen to assistants to staff, included in the status of miners, and 36 of them had only completed elementary education²⁸. Behind this was increased demand for underground supervising staff due to the expansion of the coal mining produc-

26 The Chief of General Affairs Department “*Jun'in Shokyu Toriatsukai no Ken*” (On Treatment of Wage Raise for Junior Staff), 1st, February, 1936 in Mitsubishi Mining “*Sho18nen Jinji Kiroku Oyobi Senrei Fujii Fikuchō Hokan*” (Personnel Records and Precedents 1943 Preserved by Fujii Vice General Manager)

27 Mitsubishi Mining “*Showa9nen Jinji Kankei*” (The Documents Related with Personnel Administration 1934)

28 Mitsubishi Mining “*Ji Showa13nen Itaru Showa19nen Jun'in Shokaku Kankei*” (On Promotion to Junior Staff from 1938 to 1944)

tions as required by the war effort. Miners and workmen even came to be promoted to staff hired by the head office in 1940 onwards, owing to the escalation of the war²⁹. The policy of requiring underground supervising staff to have completed secondary education ultimately was not achieved during the prewar period.

6. Conclusions

The educational status system that was the norm in other Japanese companies also was employed as the framework of Mitsubishi Mining's human resource management system. However, the above discussion makes it clear that Mitsubishi Mining placed the emphasis on on-site work experience in order to train technical staff. Many of the staff hired by the head office who were assigned status corresponding to graduates of tertiary education had in fact been promoted from staff hired by the mines in charge of the practical work in mines, who had completed secondary or lower levels of education. In addition to this, from the beginning of the 1920s staff hired by the head office who had completed tertiary education were obliged to gain practical work experience in mines at the beginning of their careers. While pursuing careers restricted to specific functions, they were also required to accumulate practical work experience in various coal mines where coal seam conditions differed in order to enhance their technical skills.

After the end of World War I, a policy was enacted to replace the underground supervising staff, who were mostly assistant staff who had only received elementary education, with staff hired by the mines who had completed secondary school education. However, this was not as easy as it seemed, and in the second half of the 1920s a program was begun to train miners who had graduated from elementary schools as underground supervising staff within the company. The assistant staff system was finally abol-

29 Mitsubishi Mining “*Ji Showa15nen Itaru Syowa21nen Seiin Syokaku Kankei*” (On Promotions to Staff hired by Head office from 1940 to 1946)

ished in the mid-1930s, so that underground supervising staff would be hired from people who had completed secondary education. However, the assistant staff caught up in this abolishment were promoted to staff hired by the mines, which meant that many of the staff hired by the mines still were former assistant staff who had completed only elementary educations. In addition to this, the war effort resulted in an expanded demand for underground supervising staff, so that there was an increase in the number of miners who were promoted to staff positions.

On the other hand, however, we also have been able to confirm that disparities existed between university graduates and polytechnic graduates with regard to the duties to which they assigned and the promotional possibilities that were available to them. This suggests that the effects of academic qualifications with regard to the company's human resource management system were very great indeed.