ARBITRATION AWARD NO. 74

AWARD IN THE GRIEVANCE NO. 6-D-2 ABOUT

THE JOB CLASSIFICATION OF THE NO. 3 OPEN HEARTH BOILER ENGINEER OCCUPATION

B E T W E E N

INLAND STEEL COMPANY, EAST CHICAGO, INDIANA

A N D

LOCAL UNION NO. 1010, UNITED STEELWORKERS OF AMERICA, C.I.O.

ARBITRATOR: PROFESSOR Q. C. VINES

JUNE 15, 1953

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1. THE GRIEVANCE

On September 30, 1952 the Union filed a grievance, claiming that the job classification for the occupation of the No. 3 Open Hearth Boiler Engineer was improperly established by the Company in accordance with Article V, Section 6 of the Collective Bargaining Agreement.

A copy of the initial grievance appears in Exhibit No. 1 on a following page. Article V, Section 6 is quoted below:

"Description and Classification of New or Changed Jobs.

The job description and classification for each job as agreed upon under the provisions of the Wage Rate Inequity Agreement of June 30, 1947, and the Supplemental Agreement relating to Mechanical and Maintenance Occupations dated August 4, 1949, shall continue in effect unless (1) the Company changes the job content (requirements of the job as to training, skill, responsibility, effort or working conditions) so as to change the classification of such a job under the Standard Base Rate Wage Scale or (2) the description and classification is changed by mutual agreement between the Company and the Union.

When and if, from time to time, the Company at its discretion establishes a new job or changes the job content of an existing job (requirements of the job as to training, skill, responsibility, effort or working conditions) so as to change the classification of such job under the Standard Base Rate Wage Scale, a new job description and classification for the new or changed job shall be established in accordance with the following procedure:

A. The Company will develop a description and classification of the job in accordance with the provisions of the aforesaid Wage Rate Inequity Agreement.

B. The proposed description and classification will be submitted to the grievance committee of the Union for approval.

C. If the Company and the grievance committee are unable to agree upon the description and classification, the Company may after thirty (30) days from the date of such submission, install the proposed classification and such description and classification shall apply in accordance with the provisions of the aforesaid Wage Rate Inequity Agreement, subject to the provisions of sub-paragraph D below.

D. The employee or employees affected may at anytime within thirty (30) days from the date such classification is installed, file a grievance alleging that the job is improperly classified under the procedures of the aforesaid Wage Rate Inequity Agreement. Such grievance shall be processed under the grievance procedure set forth in Article VIII of this Agreement and Section 9 of this Article. If the grievance be submitted to arbitration, the arbitrator shall decide the question of conformity to the provisions of the aforesaid Wage Rate Inequity Agreement, and the decision of the arbitrator shall be effective as of the date when the disputed job description and classification was put into effect.

E. In the event the Company does not develop a new description and classification, the employee or employees affected may process a grievance under the grievance procedure set forth in Article VIII of this Agreement and Section 9 of this Article requesting that a job Description and Classification be developed and installed in accordance with the applicable provisions of the aforesaid Wage Rate Inequity Agreement and if processed to arbitration the decision of the arbitrator shall be effective as of the date the new description and classification should have been put into effect."

2. THE BACKGROUND

A brief account is given here of the major details involved in the subject dispute.

a. Classification of the No. 3 Open Hearth Boiler Engineer

In Steptember 1952 the Company increased its open hearth facilities by adding four furnaces and boiler equipment in the new No. 3 Open Hearth Shop. The Company created the occupations necessary for operating for equipment; then described and classified the jobs so as to establish the appropriate rates of pay for each. The Company, as required by the Wage Rate Inequity Agreement, used its Job Classification Manual in making these classifications and applied them to the Standard Base Rate Wage Scale to determine the pay rates. One of these classifications, that of the No. 3 Open Hearth Boiler Engineer, was later the cause of the present grievance.

On September 20, 1952 the Union agreed to the installation of the new descriptions and classifications but reserved the right to file a grievance in accordance with the provisions of Article V, Section 6, D of the Collective Bargaining Agreement. The Company made the installations retroactive to September 6, 1952; thus the base rates of pay developed by the classifications became retroactive to that date.

b. Steps Involved in the Grievance

Step 1 - On September 30, 1952 the Union filed the subject

Grievance No. 6-D-2 claiming that the occupation of the No. 3 Open Hearth Boiler Engineer had not been correctly classified in accordance with the provisions of Article V, Section 6 of the Collective Bargaining Agreement.

On October 2, 1952 the Company notified the Union it was not acting on the grievance because the Union had not given a clear and concise statement of relief sought as provided for in Article VIII, Section 5 of the Collective Bargaining Agreement. The grievance was brought into conformity with the Collective Bargaining Agreement and then re-filed.

The Union informed the Company of its belief that seven factors in the Boiler Engineer classification were evaluated too low and should be raised in order to provide the proper classification and associated basic rate of pay.

The Company met with the Union but did not reach any agreement.

Step 2 - On October 30, 1952 the Company issued its answer in the second step of the grievance procedure, indicating that it did not consider changes in the classification warranted.

Step 3 - On December 2, 1952 the Company replied in the third step of the grievance procedings, stating

that it saw no basis for an upward revision of the No. 3 Open Hearth Boiler Engineer classification or rate.

Step 4 - On April 8 the Arbitrator met with representatives of the Company and the Union to discuss the dispute.

Present for the Company:

T. G. Cure,	Ass't. Supt. Labor Relations
L. R. Mitchell,	Div. Supt. Labor Relations
R. J. Royal,	Div. Supt. Labor Relations
T. R. Tikalsky,	Div. Supt. Labor Relations
R. L. Smith,	Ass't. Supt. Industrial Eng.
A. W. Grundstrom	Senior Wage Analyst, Industrial Engineering
Paul Thanos,	Ass't. Supt. Power and Steam
Earl Sherley,	Steam Foreman, Power and Steam

Present for the Union:

Joseph Jeneske,	International Representative
Fred Hughes,	Grievance Committeeman, Power and Steam
Mike Brannick,	Boiler Engineer, No. 3 Open Hearth
Mr. Jim Fleming,	Boiler Engineer, No. 3 Open Hearth
Mr. Hurd,	Boiler Engineer, No. 2 Open Hearth
Mr. Spack,	Boiler Engineer, No. 1 Open Hearth

Present as Arbitrator:

Professor Q. C. Vines

Both parties stated their views about the No. 3 Open Hearth Boiler Engineer classification and the Company presented the Union and the Arbitrator with typewritten copies of various information relative to the grievance and the classification. In the course of this meeting the Union withdrew its objection to the evaluation of five of the original seven factors protested and voiced an objection

to one additional factor, that of Experience.

The Union indicated that two things made this retraction possible:

(1) Since the grievance was first made the Company changed many conditions of the job so that disputed evaluations of certain factors became equitable.

(2) In conducting the grievance proceedings the Company had presented the Union with more elaborate and detailed information than heretofore, which tended to show the justification for the evaluation of some of the factors.

The five factors withdrawn from the dispute were:

Physical Strength
Muscular Coordination
Quickness of Comprehension
Judgment
Mental Stability

The three factors that remained in dispute, including the newly protested factor, were:

Experience
Physical Exertion
Mental Exertion

In view of this change in the position of the Union the Company requested and was granted a fifteen day period, following receipt of a transcript of the arbitration meeting, in which to submit a post-hearing brief to substantiate its evaluation of the final three factors being protested. The Union also requested and was granted an equal period, following receipt of the Company's post hearing brief, in which to prepare any rebuttal deemed necessary. The Arbitrator received the

post hearing brief from the Company. The Union notified the Arbitrator that it believed complete information had been presented by both it and the Company and that no post-hearing rebuttal seemed necessary.

Following the arbitration meeting the Arbitrator, accompanied by Union and Company representatives, went to the No. 3 Open Hearth to personally see the job in dispute and have the Boiler Engineer point out the major features of the job. Because the Union and the Company had frequently compared the No. 3 Open Hearth Boiler Engineer job with the job of Boiler Engineer on the Open Hearth No's. 1 and 2, encumbents on the latter two jobs were also asked to show their work to the Arbitrator.

c. Condensed Details about the Relationship of the Present Classification of the No. 3 Open Hearth Boiler Engineer with Adjustments Advocated by the Union.

The Company's present evaluation of the job of Boiler Engineer, No. 3 Open Hearth, places it in Job Class 12. The Union contends that the factors of Experience, Physical Exertion and Mental Exertion have been made incorrectly and should be increased as follows:

Factor	Present Assigned			Proposed		
		Code	Points		Code	Points
Experience	(24 mos.)	2-D	8	(30 mos.)	3-B	10
Physical Exertion		2-B	2		2-A	1
		3-B	4		3-C	6
			6			7
Mental Exertion		3-D	8		3-C	9

Total Difference in Points = 4

These changes would result in the following total adjustments for the job:

Items	Assigned	Proposed Adjustment
Total Evaluation Points	69	73
Job Class	12	13
Base Rate per Hour	$1.985	$2.035

In discussing the classification of the job in dispute the Union and the Company made certain comparisons between the factors and evaluation of them for that job with those for several other occupations. The coding and evaluation points for the factors of Experience, Physical Exertion and Mental Exertion are shown here for three of the jobs referred to most frequently:

	Boiler Engineer #1 Open Hearth		Boiler Engineer #2 Open Hearth		Water Tender #3 Open Hearth	
	Code	Points	Code	Points	Code	Points
Experience	(24 mos.)		(30 mos.)		(18 mos.)	
	2-D	8	3-B	10	2-C	6
Physical Exertion	2-B		2-A		2-A	
	3-B	6	3-C	7	3-C	7
Mental Exertion			4-A		3-C	
	3-D	8	3-C	9	2-A	7

	No. 1	No. 2	Water Tender No. 3
Total Evaluation Point for All Factors:	69	73	59
Job Class:	12	13	9
Base Rate per Hour:	$1.985	$2.035	$1.835

The job descriptions and classifications for the No. 3 Open Hearth Boiler Engineer Job, the one in dispute, and for the three other jobs mentioned above appear on the following pages in Exhibit No's. 2, 3, 4, 5. For reference purposes a copy of the Standard Base Rate Wage Scale is shown in Exhibit No. 6.

d. The Union's Reasons for Changing the Evaluations of Three Factors in Dispute and the Company's Reasons for Retaining Them.

Presented here separately for each classification factor in dispute are the principal points advanced by the Union and the Company to substantiate their respective viewpoints.

(1) Experience Factor

(a) Present - Code: (24 mos.) 2-D Points: 8

(b) Union's Proposal - Code: (30 mos.) 3-B Points: 10

(c) Basis for Rating (Present) -"24 months experience essential."

(d) Union's Reasons for Changing Evaluation -

> "-----our contention being that if thirty months' experience is required at the No. 2 Open Hearth for the Boiler Engineer, it is certainly required at the No. 3 Open Hearth. ***What we are talking about in this particular factor, in the opinion of the Union, is the skill required. If a man is required to have the skill to be a boiler engineer, the same skill is required regardless of whether he has twenty boilers, four boilers, or six boilers. -----in the Experience Factor the Company has consistently maintained that added equipment is no reason to change the Experience Factor in many cases brought before it-----in grievance

procedures. We believe the application of the manual is not based upon territory, but upon skills. And we get our belief from the fact that the Company has consistently maintained that in other situations.

The fact that they don't have as many boilers (to attend in No. 3 Open Hearth) doesn't mean in the future they won't have. **** The shop is laid out so that there will be more furnaces; then there will be added equipment (boilers). These people (No. 3 Boiler Engineer) will have to take care of it.

Now we have finally boiled this thing down to those particular factors (Experience, Physical Exertion and Mental Exertion). The one that is most important, in my opinion, is Experience. If that is granted that would put this job up to the next class."

(e) Company's Reason for Retaining the Evaluation -

"It is not only a question of a larger territory but the fact that No. 2 Open Hearth has both water tube and fire tube boilers. Each of these two types has its own operating problems not present in the other. No. 3 Open Hearth has only one type of boiler, water tube. In fact, fire tube boilers, of which there are none in No. 3, are more critical and more attention has to be paid to such factors as tube 'heating' and the possibility of boiler plugging. Furthermore a larger area does require longer learning time, especially in light of the fact that in No. 2 Open Hearth the controls are not located in identical positions on each boiler-----.

Furthermore, when the No. 1 Open Hearth Boiler Engineer was arbitrated before Mr. Merle Schmid, August 15, 1950, the Union's request to increase No. 1 Open Hearth Boiler Engineer to a coding greater or equal to No. 2 Open Hearth Boiler Engineer was denied. The basis of the Arbitrator's (Mr. Schmid) decision was:

'In relation to methods used on all other jobs evaluated, the scale of 24 months experience (2-D-8) is proper and adequate. The job requires less learning time, because of smaller working area than No. 2 Open Hearth Boiler

Engineer coded 3-B-10.' Now the Union requests the same coding on Experience for No. 3 Open Hearth Boiler Engineer, as assigned to the No. 2 Open Hearth Boiler Engineer, where, to repeat, we have water tube and fire tube boilers, larger working area, where 24 boilers are involved with variations in control locations on each boiler. We also think it is obvious that it takes more experience to direct five employees covering 24 boilers than in directing one man covering 4 boilers."

(2) Physical Exertion Factor

(a)	Present -	Code: 2-B 3-B	Points:	2 4 6
(b)	Union's Proposed -	Code: 2-A 3-C	Points:	1 6 7

(c) Basis for Rating (Present) -

"Moderate exertion to inspect and observe operation, write, etc. (Code 2-B) Normal exertion to climb stairs, use tools, handle materials, and operate values (Code 3-B)."

(d) Union's Reasons for Changing Evaluation -

"I don't propose-----to tell the arbitrator that I think the Boiler Engineer in the No. 2 Open Hearth doesn't have to walk a little farther than the one at No. 3 Open Hearth, but I believe that the application of the (classification) manual would indicate that they should both be coded the same. The physical requirements of the job entail a little bit more than walking. The basis for the rating (evaluation) is worded identically by the Company for both the No. 2 Open Hearth and the No. 3 Open Hearth; and-----on the basis of the description itself, and the basis of the rating used, he couldn't come up with any other answer -----. (Meaning intended evaluation points would be the same for both jobs)

I will admit that our contention is not as strong there as it might be; but in this business of learning - and that is what we are doing, learning this job evaluation from Mr. Smith -

in these arbitrations he indicates the high degree and the low degree. **** I would say that this particular factor would be a low degree, that it would fit into that particular category, and, if he wanted that, the No. 2 Open Hearth would be the high degree, but still within the same limitation."

When the Arbitrator visited the No. 3 Open Hearth Boiler Engineer job one of the workers pointed out three physical phases of the work:

1. Climbing (approx. 30 feet) up a permanent ladder to check the water level in the deaerator tank whenever it is believed the water may be frozen, or the gauge is not functioning properly.

2. Climbing a short flight of steps and walking in cramped quarters on a catwalk at the side of the boiler to either check a gauge, or operate a control (occasionally).

3. Turning the large wheel-lever to move a large damper that must be raised and lowered whenever the boiler is put in, or taken out of service. The damper is difficult to operate, requiring the efforts of two men for 30 to 40 minutes."

Following is a statement of the relief sought as made by the Union in the first step of the grievance procedure. In the arbitration meeting the Union said the Company had rectified some of the conditions. "In order to operate valves, ladders must be used to reach valves which are about 30 feet above the floor level. Also consideration must be taken when these valves have to be packed and glands tightened because a man has to stand on a ladder to do this work. Ladders for this work must be moved from valve to valve. To gain access to deaerating tank Engineer must leave job, cross the width of the basement floor and go up two flights of stairs, then cross open hearth floor and three box-car rails. Also Engineer must go outside building to operate valves on continuous blow-down tank."

(e) Company's Reasons for Retaining the Evaluation -

"The levels (degree of effort) assigned and the degree of time significance for the No. 3 Open Hearth Boiler Engineer are identical to the Boiler Engineer in No. 1 Open Hearth i.e., the Company believes that the selected and assigned levels of Physical Exertion which most closely characterize the requirements of the job-----are identical with the No. 1 Open Hearth Boiler Engineer. In other words the Company has assigned moderate exertion for the 'inspection and observance of operations, walking and writing etc.' at 50% of the day. For the remaining 50% of the day the employee works at a level of normal exertion 'climbing stairs, using tools, handling materials and operating valves.' ****

The Company wishes to point out that there are now drop chains attached to these and other valves. There is now a direct access by use of a permanent ladder to the deaerator tank above. There is also a level indicator on the first floor showing water level in the tank. Furthermore the walking up two flights of stairs for this small area and the number of boilers involved (4) in no manner compares to the No. 1 Open Hearth (with 10 boilers) and-----to the No. 2 Open Hearth Boiler Engineer who has 24 boilers and auxiliary equipment to cover. Three flights of floors are involved, since in No. 2 Open Hearth the equipment is divided between the basement, the open hearth floor, and the crane runway level where fans are stationed. The No. 2 Open Hearth Boiler Engineer has 7 points on Physical Exertion, yet the Union in the case of the No. 3 Open Hearth Boiler Engineer request a 3-D-8*, which coding would be above the No. 2 Open Hearth Boiler Engineer. It is evident that under no circumstance can these jobs be considered on this factor-----. If 7 points is correct for the

* Arbitrator Comment - At the arbitration meeting the Union changed its request for an evaluation of 3-D-8 to one of 2-A-1 and 3-C-6 for a total of 7 points.

No. 2 Open Hearth Boiler Engineer because of the size of the working area, the number of boilers attended as compared with No. 3 Open Hearth, then the coding for the No. 3 Open Hearth Engineer must be lower. Therefore, in relationship the No. 3 Open Hearth Boiler Engineer is more comparable to No. 1 Open Hearth at 6 points than with the 7 points assigned to the No. 2 Open Hearth Boiler Engineer.

The No. 3 Open Hearth Boiler Engineer cannot compare to the Boiler Engineer in No. 2 A. C. Station who has a code of 3C and 2A for 7 points on Physical Exertion. This job has 13 boilers, firing equipment, and considerable auxiliary equipment over an area 625 feet long and 7 floors in height.****"

(3) Mental Exertion Factor

(a) Present - Code: 3-D Points: 8

(b) Union's Proposed - Code: 3-C Points: 6
4-A 3
9

(c) Basis for Rating (Present) -

"Close attention to pressures, making tests, directing, repairing, etc."

(d) Union's Reasons for Changing Evaluation -

"Our contention-----, as far as mental Exertion is concerned, the number of people around don't necessarily contribute to higher mental fatigue or mental exertion. It is our opinion that the fact that there are less people aroung, less people to talk to, you have (require) a greater brain. You have to watch about the same type of equipment, and the responsibility of the man operating the Boiler House, a responsibility that lies on his shoulders, creates, in our opinion, as much mental disturbance, provides as much mental exertion as the No. 2 Open Hearth.

*****The size of the crew in this particular case (No. 3 Open Hearth) being less, because there is less equipment, is an indication, in my mind, that the factor should be rated the

same (as for No. 2 Open Hearth Boiler Engineer). -----where they have more territory to cover, they have more people, and this man (Boiler Engineer, No. 3 Open Hearth) can't assign to another individual some duties that normally are his. So the only mental strain this man, who has the added number of people would have would be in assigning the other men and worrying whether he would carry out the assignment. This man (No. 3 Open Hearth Boiler Engineer), who works by himself has to worry about getting to the assignment. That may be farfetched; but I think the whole thing is a little far-fetched."

*****The primary function of the job (at No. 3 Open Hearth) is the same (as at No. 2 Open Hearth). And, the description is pretty much the same. There is some difference in terminology, very minor in my opinion, but that would indicate, from the description, that the mental requirements are the same.

Following is a statement of the relief sought as made by the Union in the first step of the grievance procedure. "Close attention to pressure must be maintained; pressure is a very important factor. Pressure must be maintained to keep equipment in operation; to keep the pressure up the Engineer must be very alert. There is only one main steam header line gauge in the Boiler House to determine the line pressure; so in order for the Engineer to check steam pressure he must be in the Pump Room of the Boiler House. The treating of the boiler water is very important and time and care must be taken to do this job correctly. The compound tank must be filled and circulating mixing motor must be started to mix compound. Compound pumps to each boiler must be started and clocks must be set on each pump to measure mixture to each boiler. If automatic clocks are out of order, then compound pumps must be operated by hand and as there are 4 of same, caution must be used so as not to get too much acid and too little in boilers.-----There are 6 gauges and 4 charts on each of 4 boilers, also 23 gauges and 6 charts in pump room, and 4 clocks to set in Chemical Room. All charts are to be changed. There are to be added 2 more boilers to this boiler house at a later date, which will add 6 more gauges and 4 charts."

(e) Company's Reasons for Retaining the Evaluation -

"In answer to the Union's claim the Company wishes to point out that there are steam line pressure gauges at each boiler in addition to two gauges in the pump room. The setting of clocks on compound pumps would occur very infrequently. Furthermore the Boiler Engineer at the No. 1 Open Hearth has the same responsibility (as the No. 3 Open Hearth Engineer) and has a 3-D-8 (evaluation) on Mental Exertion.

Charts are changed once a day at midnight. No great rush is involved and these charts can be changed very easily. The gauges and charts referred to are actually instruments which help the Engineer in determining how the boiler is operating. The No. 1 Open Hearth Boiler Engineer has more people to direct and has more boilers than the No. 3 Open Hearth Boiler Engineer-----. Obviously the No. 3 Open Hearth Boiler Engineer cannot be placed on a par with the No. 2 Open Hearth Boiler Engineer which has a point value assignment of 9 points on the basis of 24 boilers and more people to direct. Nor should the No. 3 Open Hearth Boiler Engineer be on a par with the Boiler Engineer of the No. 3 A. C. Station, who must meet steam demand of an A.C. generating station; furthermore the boilers attended are also gas and oil fired.

*****Obviously the planning of work and activity for the day for 24 boilers and 5 men certainly is a fatiguing influence.-----more problems will arise than where only 4 boilers must be attended and one man to direct.

*****As stated above the No. 3 Open Hearth is an extention of the present open hearth facilities; although the boilers are new 'in the sense that they have been recently purchased, it is not a new type of equipment nor is the Boiler Engineer a 'new' job in the sense that it is something we have never had before.' -----

The Union's statement: 'The capacity of these boilers, I believe, is greater than it is anywhere else and they (Boiler Engineers) believe they are entitled to more money because they are in a more responsible position' is not true.

No. 1 Open Hearth is generating an average of 150,000 lbs. of steam per hour; No. 2 Open Hearth an average of 330,000 lbs. per hour; and No. 3 Open Hearth an average of 65,000 lbs. per hour*.-----The amount of steam generated is governed by the amount of heat transmitted to the boiler by the open hearth furnace over which the employee, No. 3 Open Hearth Boiler Engineer, has absolutely no control. The employee's main function is to maintain the proper water level in the boilers. Actually the modern devices installed at No. 3 Open Hearth are an aid to the Boiler Engineer in the performance of his duties in maintaining the water level. The Union's statement 'The equipment they have to handle is a different type than they have handled before' obviously is not true."*****

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*Arbitrator Comment: If the indicated quantities of steam generated are total quantities for the respective open hearths, the capacity per single boiler would be:

15,000 lbs. per hr. for No. 1 Open Hearth
12,900 lbs. per hr. for No. 2 Open Hearth
21,700 lbs. per hr. for No. 3 Open Hearth

S E C T I O N II

II - OPINION OF THE ARBITRATOR

The Union claims that the No. 3 Open Hearth Boiler Engineer job is not properly classified and has indicated factors for which the present evaluation should be raised. In the course of the arbitration proceedings the Union withdrew its original objections to the evaluation of five factors but at this time still protests the evaluation of three factors: 1. Experience, 2. Physical Exertion, and 3. Mental Exertion. Under these factor headings the Arbitrator will express his views as to the correctness of the evaluation of the respective factors.

1. EXPERIENCE

At present the classification for the Experience factor is coded 2-D for 8 points credit. The code number "2" stands for the second Level of General Experience and the letter "D" stands for the Degree of Significance. The Inland Steel Company Job Classification Manual describes these two items as follows:

> Second Level of General Experience - Experience involving proficiency in some specific skills of limited extent such as may be normally acquired over a period of twenty four months.
>
> "D" Degree of Significance - Indispensable qualification since applicants would not be selected unless possessing this qualification to an exceptional degree.

The Union has requested that the classification be changed, considering the need for thirty months experience and using

a code of 3-D for 10 points credit as had been assigned by the Company for the No. 2 Open Hearth Boiler Engineer job. The Classification Manual gives this definition of the Third Level of General Experience:

Third Level of General Experience - Experience involving proficiency in a considerable variety of skills such as may be normally acquired over a period of forty-two months.

Actually the Classification Manual designates 14 points credit instead of 10 points for a coding of 3-D. It is therefore assumed that the Company employs some special conventions not given in the Manual which call for a scale of credit much as follows:

Experience of:	24 mos.	8 points
	30 mos.	10 points
	36 mos.	12 points
	42 mos.	14 points

It seems of greatest importance to decide how many months experience would ordinarily be needed by a Boiler Engineer for the No. 3 Open Hearth. In determining this, one should be guided in part by the definitions of the different Levels of General Experience and, if possible, by Degrees of Significance defined in the Classification Manual.

The amount of experience needed by the average man to do a job, to a great extent, depends upon two things: (1) the difficulty of the tasks and (2) the variety of the tasks. In considering these items it is helpful to compare them with like items in somewhat similar occupations, in this instance, the

Boiler Engineers on No. 1 and No. 2 Open Hearths.

It appears that differences in the difficulty of the tasks of the three Boiler Engineer jobs would result from the operating methods and the characteristics and the condition of the equipment. As for the condition of the equipment, it is logical to consider that, after overcoming installation difficulties, the newer equipment in the No. 3 Open Hearth should be in superior operating condition to that in the older open hearth No's. 1 and 2. The general characteristics of the equipment in all three open hearths is quite similar, except that the No. 2 Open Hearth utilizes both water tube and fire tube boilers, whereas the No. 3 Open Hearth uses only water tube boilers. The method of work differs primarily in the use of assistants, the No. 3 Open Hdarth Boiler Engineer directs only (1) Water Tender, whereas the No. 1 Open Hearth Boiler Engineer directs (1) Water Tender and (1) Water Tender Assistant and the No. 2 Open Hearth Boiler Engineer directs a total of (5) Water Tenders, Boiler Washers, Flue Blowers, and Pump Room Operators.

The difference in variety of work on the three jobs results to some extent from having boilers of two types instead of one, from having more men to direct on one job than another, and possibly from having more units to control that are located in different places. In these respects the No. 3 Boiler Engineer has less variety than the No. 2 Boiler Engineer. The variety of work is more comparable with that of the No. 1 Open Hearth Boiler Engineer.

On the basis of the above considerations that the Level of General Experience required by the No. 3 Open Hearth Boiler Engineer would be less than that selected for the Boiler Engineer at No. 2 Open Hearth, therefore the second level, the level chosen for the No. 1 Open Hearth job. The Arbitrator will not attempt to apply the definitions for Degrees of Significance shown in the Manual, because it appears likely that the Degree code letters are applied as an identification of point values rather than used as a guide in assigning the values.

The Company and the Union have reached agreement that twenty-four month experience is suitable for the No. 1 Open Hearth Boiler Engineer. The Arbitrator feels that the experience needed by the No. 3 Open Hearth Boiler Engineer would be no more. The parties have also reached agreement that the No. 2 Open Hearth Boiler Engineer requires more experience than the Boiler Engineer of the No. 1 Open Hearth and have indicated a thirty-month experience period as suitable. Because of the reasons discussed above it appears logical to expect the Boiler Engineer of the No. 3 Open Hearth to require somewhat less experience than the Engineer at the No. 1 Open Hearth.

The Arbitrator's familiarity with experience requirements for various types of work leads him to believe that a period of approximately twenty-four months would be suitable for learning the No. 3 Open Hearth Boiler Engineer job. Although the method of gaining this experience could vary, it might be made up of:

3 - 9 months on any open hearth job, plus
6 - 15 months as Water Tender, and
3 - 6 months as Boiler Engineer (Trainee).

2. PHYSICAL EXERTION

The present classification for the Physical Exertion factor has a code of 2-B for 2 points plus 3-B for 4 points for a total of 6 points. Following are the definitions given in the Manual for these coded Levels and Degrees of Physical Exertion:

Second Level of Physical Exertion - Normal exertion, i.e. operate heavy controls, work with light tools, handle light weight material.

Third Level of Physical Exertion - Above normal exertion, i.e. work with heavy tools, handle medium weight material at moderate pace or light weight material at sustained pace or fast speed, perform some heavy work at intervals.

"B" Degree of Time Significance - Up to and including half of total time.

The Union has requested that the classification be changed, using a code of 2-A for 1 point plus 3-C for 6 points making a total of 7 instead of 6 points. The classification Manual gives these definitions for the "A" and "C" Degrees of Time Significance for Physical Exertion:

"A" Degree of Time Significance - Up to and including one-fourth of the total time.

"C" Degree of Time Significance - Up to and including three-fourths of the total time.

The Union called the attention of the Arbitrator to three phases of the No. 3 Open Hearth Boiler Engineers job which

would require a high level of physical exertion. This work involved climbing a thirty foot permanent laddrt to the deaerating tank, climbing to and walking on a "catwalk" in cramped quarters alongside the boilers, and turning a large wheel-lever to open a huge damper valve. It should be recognized that this activity is required infrequently, usually in emergency conditions. The major portion of the time is used in walking between equipment to read charts and gauges, changing charts, recording data in log books and adjusting valves of medium size.

The selection of codes to represent the Physical Exertion factor would depend upon the manner of grouping the various activities for this analysis. Rather than analyze the physical exertion requirement in that way it seems simpler and more conclusive at this time to compare the physical exertion requirement of the No. 3 Open Hearth Boiler Engineer with that of the No. 1 and No. 2 Open Hearth Boiler Engineers. Within reasonable limits it may be considered that the exertion per boiler unit by Boiler Engineers at either of the Open Hearths No. 1, 2, or 3 is approximately the same. If the physical work were distributed equally between the Boiler Engineer and the workers he directs, the exertion per man in terms of the number of boilers would be as follows for the respective open hearths:

No. 1 Open Hearth: $\frac{10 \text{ boilers}}{3 \text{ men}} = 3\ 1/3$ boilers/man

No. 2 Open Hearth: $\frac{24 \text{ boilers}}{6 \text{ men}} = 4$ boilers/man

No. 3 Open Hearth: $\frac{4 \text{ boilers}}{2 \text{ men}} = 2$ boilers/man

Now, it is normally true that as one directs more men, those men handle more of the tasks requiring physical exertion and a somewhat greater portion of the supervisor's time is devoted to the lighter work of planning and checking the work of others. To carry this analysis further, consider that the physcial exertion of the Boiler Engineer is reduced approximately 5% by each assistant (a very rough estimate but a reasonable assumption). Application of this percentage would develop these amounts of physical exertion in terms of the number of boilers operated by the respective Boiler Engineers:

No. 1 Boiler Engineer: 3.33 (100% - 2 x 5%) = 3.0 boilers

No. 2 Boiler Engineer: 4 (100% - 5 x 5%) = 3.0 boilers

No. 3 Boiler Engineer: 2 (100% - 1 x 5%) = 1.9 boilers

This analysis illustrates that both the No. 1 and No. 2 Open Hearth Boiler Engineers have a physical exertion requirement approximately 50% greater than that of the No. 3 Boiler Engineer. Even though the physical exertion analysis were refined to secure a more accurate comparison, there is little doubt but what the exertion shown for the No. 3 Boiler Engineer would be less than either of the other Engineers. A more refined analysis agreed to by the Company and the Union for the exertion requirements of the No. 1 and No. 2 Boiler Engineers showed the latter Engineer to have the greatest physical exertion by about 20%. It is therefore more logical to compare the exertion of the No. 3 Open Hearth Boiler Engineer with that of the No. 1 Open Hearth Boiler Engineer and assign the same credit of 6 points.

3. MENTAL EXERTION

The present classification for the Mental Exertion factor of the No. 3 Open Hearth Boiler Engineer job is coded 3-D for 8 points credit. The Manual gives these definitions for the "3" Level and the "D" Degree of Mental Exertion:

> Third Level of Mental Exertion - above normal exertion; close visual attention to specific details on operations of moderate speed, or application of mental faculties in solving simple problems inducing some mental fatigue or nervous strain.
>
> "D" Degree of Time Significance - Exceeding three-fourths of total time.

The Union has requested that the classification be changed, using a code of 3-C for 6 points and a code of 4-A for 3 points making a total of 9 instead of 8 points credit. The Manual definitions for the Level "4" and the Degrees "A" and "C" are as follows:

> Fourth Level of Mental Exertion - High exertion; very close attention on fast or responsible operation tending to cause considerable nervous strain, or application of some original thinking to solve complex problems of a nature calculated to induce considerable mental fatigue.
>
> "A" Degree of Time Significance - Up to and including one-fourth of total time.
>
> "C" Degree of Time Significance - Up to and including three-fourths total time.

The Union advanced the idea that the requirement for mental exertion might vary inversely with the number of employees directed. It was their belief that the employees directed shared some of the responsibilities of the supervisor and lightened his mental load. On the basis of this principle the Union felt that the No. 3 Open Hearth Boiler Engineer, which directs one assistant employee, should have at least as much credit for mental exertion as the No. 2 Open Hearth Boiler Engineer who directs five assistant employees.

One might find that assistant employees share some of the original mental load of a supervisor; but the presence of assistants greatly increases the mental exertion requirement in other ways. The personnel relations problems associated with supervising others are complex and usually multiply rapidly as the number of employees directed is increased. Except for the different exertion attending the supervision of a varied number of assistants, the type of mental exertion required by the Boiler Engineers for each of the Open Hearths No's. 1, 2, and 3 is quite similar, and the amount per boiler is nearly the same.

An analysis of the relative mental exertion requirements of the different Boiler Engineers might be made much the same as was done for physical exertion on the preceding page. If the work is distributed equally between the Boiler Engineer and his assistants, the mental exertion per man in terms of the number of boilers would be as follows at the respective Open Hearths:

No. 1 Open Hearth: 3 1/3 boilers/man

No. 2 Open Hearth: 4 boilers/man

No. 3 Open Hearth: 2 boilers/man

Even without increasing the exertion requirement for the Boiler Engineers directing the most men, it is seen that the Boiler Engineer for the No. 2 Open Hearth has the greatest mental exertion and the Boiler Engineer for the No. 3 Open Hearth the least. It is, therefore, logical to assign no more than 8 points credit to the No. 3 Boiler Engineer, the same value as was granted the No. 1 Boiler Engineer job and to retain the greater credit value of 9 points already assigned for the No. 2 Open Hearth Boiler Engineer job.

4. CONCLUSION

The Union, in disputing the correctness of the classification of the No. 3 Open Hearth Boiler Engineer job indicated its belief that the improper classification was caused by inaccurate evaluation of these eight factors.

(1) Physical Strength
(2) Muscular Coordination
(3) Quickness of Comprehension
(4) Judgment
(5) Mental Stability
(6) Experience
(7) Physical Exertion
(8) Mental Exertion

In the course of the arbitration proceedings the Union agreed to withdraw its objection to the first five items because the Company had adjusted various job conditions following the time the grievance was first made. Remaining then for consideration were the factors of Experience, Physical Exertion and Mental Exertion.

The first parts of this section presented the Arbitrator's analyses of the present evaluation of these three factors and the possible need for revision of these evaluations. As indicated for each of the three factors, the present evaluations as established by the Company seem to be reasonably correct and properly differentiate any difference in worth of these factors as may exist between the No. 3 Open Hearth Engineer job and other occupations classified by the same system of evaluation. In view of these considerations it is the opinion of the Arbitrator that the job has been properly classified at 69 Points and Class 12.

S E C T I O N I I I

I I I - THE AWARD

The Company and the Union shall consider that the No. 3 Open Hearth Boiler Engineer job as presently constituted has been properly classified. This classification is 69 Points and Class 12.

ARBITRATOR: Professor Q. C. Vines

June 15, 1953