DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

**GHQ/SCAP Records (RG 331, National Archives and Records Service)**

**Description of contents**

(1) Box no. 2987

(2) Folder title/number: (7)
Mine Safety

(3) Date: Feb. 1949 - Nov. 1950

(4) Subject:

| Classification | Type of record |
|---|---|
| 616, 9616 | z |

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i) Chugoku
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(7) Film no. Sheet no.

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



# MINE SAFETY

| | DATE | SUBJECT | ISSUING HEADQUARTERS & INDORSEMENTS |
|---|---|---|---|
| 1. | 12 Feb 49 | Mine Safety Regulation | I Corps |
| 2. | | Proposed Mine Safety Code for Japanese Coal Mines | SCAP |
| 3. | 9 Mar 49 | Mine Safety Regulation | 8A |
| 4. | 24 Aug 49 | Preparation and Implementation of Mine Safety Codes and Administration | SCAP |
| 5. | 28 Dec 49 | Report on Mine Safety "ffairs | HMSSD |
| 6. | 23 Jan 50 | Frequent Accidents in Yamaguchi Fields | Press Translation |
| 7. | | Accident Rate (as of Jul-Dec 1949) | Mine Safety & H Inspection Div. |
| 8. | | Number of Mine by Number of Worker (31 Dec 49) | |
| 9. | | A Statistical Table of Accident Jul - Dec '49 | |
| 10. | | The List of Dealment of "Application for Exemption" of Mine Safety Regulations | Ube Coal Mine Safety & Inspection Div. |
| 11. | | Structure of Hiroshima Mine Safety & Inspection Division | |
| 12. | | Ube Coal Mine Safety & Inspection Div | |
| 13. | | Number of casualities and persentage by cause in all mines | Hiroshima Mine Safety & Inspection Div. |
| 14. | 1 Feb 50 | Report on Mine Safety Affairs during the Month of January | Ube Coal Mine Safety Security Div. |
| 15. | 3 Feb 50 | Report on Mine Safety Affairs | Hiroshima Mine Safety & Inspection Div. |
| 16. | 7 Feb 50 | Hiroshima Mine Safety and Inspection Division | |
| 17. | 21 Mar 50 | Mine Safety Reports | SCAP |
| 18. | 28 Apr 50 | Dust Respirators | " |
| 19. | 30 Jul 50 | Prize contests sponsored by ESB, MITI & Metal Mine Rehabilitation Council | " |
| 20. | 31 May 1950 | Number of Undergroundworker (As of the end of May 1950) | Tsusan-Kyoku, Hoan-Bu |
| 21. | 1 July 1950 | Themes for Mine Safety - August | SCAP, CI & E |
| 22. | Sept. 1950 | Themes for Mine Safety - September | SCAP, CI & E |
| 23. | 9 Aug. 1950 | Revision of Administration System of Mine-Safety-Inspection | H'shima Mine Safety & Inspection Division |
| 24. | 23 Aug. 1950 | Mine Safety POSTERS | SCAP, CAS/ED |
| 25. | 11 Nov. 50 | Recognition copy: Poster, Complete Equipment of Mine Facilities (ESB & MSB) | SCAP, CAS |

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MINE SAFETY M-3-G

| | DATE | SUBJECT | ISSUING HEADQUARTERS & INDORSEMENTS |
|---|---|---|---|
| 26. | 11 Nov.50 | Recognition copy: Poster, "Prevention of Gas and Coal Dust Explosions (ESB & MSB) | SCAP, CAS |
| | | | |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division — Chugoku
File No. M-3-G

Nat. Res. Division — Mine Safety — G
File No.

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Civil Affairs Section
APO 500

11 November 1950

FOR THE CIVIL INFORMATION OFFICER:

Recognition copy: Poster, 'Prevention of Gas and Coal Dust Explosions
Prepared by: Economic Stabilization Board and Mine Safety Bureau, Resources Agency
Copies distributed: 20,000
Distributed to: All local Metal Mine Safety Supervision Departments
Distribution date: 7 November 1950

Translation:

A Set of 5 Posters

1. Let us inspect for gas again before dynamiting.

2. Let us close open ventilators without fail.

Good? or Bad?

3. In ventilating through ventilator, be sure you do not re-circulate the same air; try the air near the coal face; prevent air leaks.

4. Let us sprinkle water and spray rock powder thoroughly.

5. Let us use the implements provided and prevent explosions.

Authorized implement.

Sparks are the cause of explosions.

DISTRIBUTION:

Chiefs, All CAFF Regions

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No.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Chugoku

Mine Safety - G

Natl. Res. Division
File No. M-3-G

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Civil Affairs Section
APO 500

11 November 1950

FOR THE CIVIL INFORMATION OFFICER:

Recognition copy: Poster, Complete Equipment of Mine Facilities.
Prepared by: Economic Stabilization Board and Mine Safety Bureau, Resources Agency
Copies distributed: 10,000
Distributed to: All local Metal Mine Safety Supervision Departments
Distribution date: 7 November 1950

Translation:

Complete Equipment of Mine Facilities.

Let us work happily in a clean place.

Repairing.

Arrangement.

DISTRIBUTION:

Chiefs, All CAff Regions

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Barratt

Nat. Res. Division
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CHUGOKU
INFORMATION:
O.D. 15.

CA-EN 61

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Civil Affairs Section
Economic Division
APO 500

23 August 1950

TO: ECONOMICS OFFICER

SUBJECT: Mine Safety POSTERS

Prepared by the MSB; Mine Safety
Bureau
Resources Agency

(1)

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EPaN 1392

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3

HIROSHIMA MINE SAFETY & INSPECTION DIVISION

9 Aug. 1950

Serial No. : 25 Hiro Ko Ho 1111

To : COL. Clark N. Bayley
Chief, Chugoku Civil Affairs Region

Through : Chief, Chugoku Liaison & Coordination Office

Subject : Revision of Administration System of Mine-Safety-Inspection

In accordance with enforcement of the Law-Regarding-Abolition-of-Temporary-Coal-National-Control-Regulation ( established on May 2. 1950 ) from 1 August 1950, partial revision of International Trade & Industry Ministry System Regulation has been made. As the result, Ube Coal Mine Safety Inspection Division became Ube Branch Office of Hiroshima Mine Safety Inspection Division.

Among the authorities and business affairs of the Chief, Hiroshima Mining Safety Inspection Office, those of coal mining industry in Yamaguchi Prefecture have been delegated totally to chief, Ube Branch Office. Consequently all the affairs except personal affairs of Ube Branch-Office staffs will be conducted by the chief of Ube Branch Office as before.

.....
Y. HASHIZUME
Chief, Hiroshima Mine
Safety & Inspection
Division.

Yoshio Hashizume

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No. 23

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Barrett

COPY

Nat. Res. Division
File No. 711-3-G

SUBJECT: Themes for Mine Safety - September

1. According to mine-accident statistics for the 1949 fiscal year, the highest percentage of accidents (28.7) was caused by the falling of rocks. Due to this type of accident, 418 persons were killed and 53,350 were injured during 1949. In September a special campaign will be inaugurated in an effort to decrease the number of accidents caused by falling rocks. Emphasis needs to be laid on the following precautions which should be taken by mine owners, by safety technicians, and by miners:

By Mine Owners

a. Immediate change of poles which are no longer serviceable and the strengthening of poles which need added support;

b. Installation of as many new poles as are necessary;

c. Making certain that miners are taught the proper measures for inspecting rock roofs, side walls, and operating surfaces.

By Safety Technicians

a. Thorough and complete inspections of all rock roofs and supporting poles;

b. Simple explanations to miners of the proper methods for the installation of supports.

By Miners

a. Thrice daily inspection of rock roofs where they are working;

b. If loose rocks are found, they should be pulled down where possible or proper supports should be installed.

2. During the typhoon season in September, mine safety committees should be encouraged to hold meetings for adopting the best measures to prevent typhoon damage and to enforce countermeasures against floods, particularly in the preparation of such materials as supplementary pumping machines and pipes.

COPY

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Barratt

COPY

Gen. Hes. Division
File No M-3-G

GHQ, SCAP
CIVIL INFORMATION AND EDUCATION SECTION

INTRASECTION MEMORANDUM

1 July 1950

FROM: Rural Affairs Information Officer

TO: All Branches

THRU: Acting OIC, Policy and Programs Branch

SUBJECT: Themes for Mine Safety - August

1. On 14 August a full year will have elapsed since the beginning of the enforcement of the Mine Safety Regulations. During the past year, however, there have been more accidents than there were in any previous year since the war's end. One of the main causes for these accidents is that new regulations have not been sufficiently publicized and conscientously do served. The first anniversary of the regulations in August is a fitting time to begin an intensive compaign to make each pertinent safety provision part of the thinking of both management and labor.

2. Each year in August many mines suffer from storm-damage and pit-flooding. Accordingly, appropriate measures for warding off cush damages must be widely publicized. Meetings should be held so that plans for prevention can be drawn up and arrangements can be made for amu disasters which may occur:

a. Mine Safety Administrators are to (a) enforce sea sounding; (b) establish alarms; (c) survey quality and quantity of water; (d) construct banks for flood prevention; (e) complete drainage facilities.

b. Mine Safety Technical Staffs are to (a) enforce the maintenance of mine safety diaries; (b) survey flood quantity; (c) survey the nature of the soil.

c. Mine workers should be impressed with the urgency of reporting immediately any hazards which, left untended, may lead to disaster.

3. During July, Mine Safety Week is being celebrated throughout the country's coal mines. During August it might be well to recall for mine management and labor the resolutions which were made during the Week and to stress the point that mine safety is essential 52 weeks a year.

P. J.

File No 21

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

File 173-6

1. No. of underground worker (as of the end of May, 1950)

(1) Metal mine

| Name of mine | no. | name of mine | no. | name of mine | no. |
|---|---|---|---|---|---|
| Ogano | - | Tamakime | 5 | Ōtake | 2 |
| Tatuyama | 15 | Toni | 11 | Bandai | 10 |
| Motoyama | 4 | Sakurago | 14 | Furujuku | 5 |
| Hōshō | 5 | Ushirotani | 7 | Kofuji | 5 |
| Sano | - | Takase | 4 | Takamori | 6 |
| Kanayama | 2 | Hinogami | 10 | Hata | 7 |
| Ashitani | 1 | Hirose | 46 | Kusugi | 9 |
| Kōchi | 26 | Wakamatu | 17 | Range | 8 |
| Udo | 25 | Kamehira | 3 | Kikō | 4 |
| Eiki | 11 | Kitabira | 25 | Kinkō | 8 |
| Tuno | 10 | Kameji | - | Daisanito-shisori | 6 |
| Iwatani | 18 | Taima | 31 | Iwagashita | 7 |
| Taka | 10 | Ogawa | - | Tazuyama | 5 |
| Takane | 4 | Kumano | - | Daisen | 7 |
| Sekigane | 1 | Minari | - | Fukumaki | 13 |
| Yunahara | 987 | Toyama | 3 | | |
| Kawayama | 180 | Arasedani | 7 | | |
| | | | | total | 1577 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

(2) None-metal mine

| Name of mine | no. | name of mine | no. | name of mine | no. |
|---|---|---|---|---|---|
| Okayama | 2 | Mihara | 10 | Osakamatu-shiro | 4 |
| Kanagawa | 3 | Nikoashoko-san | - | Nakayama | 15 |
| Bifuku | 2 | Ōsakamatu-shiro | 30 | Hisenbarake-mo | 13 |
| Rūjin | 12 | Onimura | 13 | Wanibuti | 31 |
| Kiyomi | — | Sanininmatu-shiro | 53 | Nagatani | 17 |
| Jimu | 5 | Tanaka | 31 | Sakae | 9 |
| | | | | total | 240 |

(3) Lignite mine

| name of mine | no. | name of mine | no. | name of mine | no. |
|---|---|---|---|---|---|
| Toyokuni | 8 | Odumo | 6 | Chiegoka | 1 |
| Uetuki | 20 | Geibi | 12 | Kimitani | 2 |
| Takasaka | 5 | | | total | 44 |

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2. Casualties in Underground

(1) No. of the killed in 1949

| kind | No. |
|---|---|
| metal mine | 5 |
| none-metal mine | — |
| lignite mine | 3 |
| total | 8 |

(2) from Jan. to May of 1950

| kind | the killed | heavy injury | slight injury | total |
|---|---|---|---|---|
| metal mine | 3 | 72 | 271 | 346 |
| none-metal mine | — | 5 | 8 | 13 |
| lignite mine | — | 2 | 6 | 8 |
| total | 3 | 79 | 285 | 367 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Bar. Path
file

File No. M-3

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Civil Affairs Section
APO 500

CHUGOKU
INFORMATION
O.D. 15

1. CATCHWORDS FOR METAL MINE REHABILITATION

(PRIZE CONTESTS SPONSORED BY NSB, MITI AND METAL MINE REHABILITATION COUNCIL FOR BEST POSTERS)

| | Catchwords | Name and Location |
|---|---|---|
| 1st Prize | No accident today extends the mine face | Omori Yuichi, Ashio Copper Mine |
| 2nd Prize | Your wife's smiling face contributes to production increase | Fujiya Sakichi, Ashio Copper Mine |
| " | Good Mine Safety makes good production records | Sakuma Shozo, Kamazu Mine |
| 3rd Prize | Dig and push with careful hands | Obata Masao, Ashio Copper Mine |
| " | You can work daily with smiling faces by observing mine safety regulations | Yoshida Morinobu, Hosokura Mine |
| " | Protect the underground resources in Japan with mine-safety | Shirakawa Shinichi, Shirataki Mine |

2. CATCHWORDS FOR COAL MINE SAFETY

(PRIZE CONTEST SPONSORED BY NSB, MITI AND JAPAN COAL MINE ASSOCIATION FOR BEST POSTERS)

| | Catchwords | Name and Location |
|---|---|---|
| 1st Prize | Not only you, but your family as well, should be mine safety conscious | Kusano Saburo, Japan coal mine |
| 2nd Prize | Accidents come through the crevices of overwork and carelessness | Akatsuka Kunio, Katsuta coal mine |

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

| | | |
|---|---|---|
| 2nd Prize | Assume both mind and body attitude towards mine safety | Yamauchi Kaisaburo, Shinyukushi coal mine |
| 3rd Prize | Full safety equipment makes the coal mine bright | Tanaka Masaharu, Yamaguchi |
| " | Check relaxed minds with mine safety rule | Mitsuoka Ichiji, Matsuura coal mine |
| " | Don't spare your time and efforts for mine safety | Ono Masaru |
| " | Keep yourbody alert by keeping your mind alert | Okazaki Saburo, Joban coal mine |

3. CATCHWORDS FOR MINE SAFETY

(RSB AND MINE SAFETY BUREAU, RESOURCES BOARD, MITI FOR BEST POSTERS)

a) Give a full signal and keep close contact.

b) Don't be slack with the working order.

c) Examine gas conditions once more before setting dynamite.

d) Make inspections, first of all, before and after your work.

e) Bright mine comes from mine safety.

f) Setting dynamite! Count the sound and wait a minute.

g) Examine the ceiling and the walls carefully.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Mr. Barratt
Info + file
ALK

COPY

Nat. Res. Division
M-3-6
EHUGHOKU

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Natural Resources Section

INFORMATION:

NR 630.1 (28 Apr 50)NG

HGS/RYG/CSH/ck
28 April 1950

O.D. 15

MAY 9 1950

MEMORANDUM FOR: Record

SUBJECT: Dust Respirators

1. Reference verbal request from Mr Tom, CA Section, for information concerning use of respirators by miners, principally in metal mines, as a means of preventing certain dust diseases, notably silicosis.

2. Dust in metal mine air is one of the more important problems with respect to the health of miners; coal dust in bituminous mines is not known to have any immediate harmful effect on health, although it is suspected that after many years of inhaling large amounts of coal dust, it may make the miner more susceptible to other respiratory diseases, such as tuberculosis and pneumonia.

a. The main sources of dust in metal-mine air in order of importance are: dry drilling of holes for blasting; blasting; shovelling or "mucking" very fine dry material at the working face which is usually poorly ventilated; loading cars from chutes; dumping loaded cars into chutes; and timbering. Most countries have attacked the problem of preventing dust diseases among miners by first attempting to eliminate the sources of dust. This is done by using wet drilling, water sprays at all points where ore is handled either by mucking or dumping into cars or chutes, and most important in the opinion of the U.S. Bureau of Mines, improving ventilation throughout the mines.

3. With respect to use of respirators in both coal and metal mines, safety regulations in Japan, as well as in other countries, require that miners wear respirators while performing certain jobs and while working in dusty atmosphere. The enforcement of such regulations is difficult. Respirators are uncomfortable to wear and the filtering medium clogs rapidly with dust and exhaled moisture, which greatly increase resistance to air flow and impose extra and often excessive effort in breathing. Some of the discomforts may become pronounced, such as the pressure at the edge in contact with the face; the heat caused by the face cover; the warm, humid exhaled air in contact with the face; rebreathing the trapped exhaled air; and prevention of cooling by evaporation and radiation. Therefore, in the conduct of programs for prevention of dust diseases, it is recommended that mines be urged to conduct educational programs emphasizing the importance of self-protection, as well as taking the other mechanical measures

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

COPY



for eliminating dust at the source.

4. The Japanese have several types of respirators, usually utilizing some kind of cloth filter. The latest type is an almost exact copy of the Mine Safety Appliance Co's respirator, except that it uses latex foam rubber as a filter; the MSA model uses a cellulose material scientifically treated so that the side through which the dusty air first passes is more porous, gradually becoming less porous, resulting in removal of coarser dust particles first. A system has been devised by the United States Bureau of Mines to test efficiency of various filtering materials. Laboratory studies have shown that a filter which will remove 50 percent of tobacco smoke (very difficult to arrest) from air flowing at a rate of 85 liters per minute, is very efficient in restraining ordinary dust encountered in industry. Hence, the Bureau has established a 50-percent efficiency against tobacco smoke by the laboratory test as a standard requirement for approval of respirators. Samples of the foam rubber filter discs used in the latest Japanese respirator are being sent to the Bureau to be given this test; it is not known at this time how efficient these filters are for use in mines.

5. In general, filters of various fabrics, including cheesecloth, Canton flannel, unbleached muslin, filter paper, and absorbent cotton, are all efficient in varying degrees in preventing dust inhalation. Most models are so constructed that the filter may be removed and replaced with a clean one when it becomes so clogged with dust that breathing is difficult. It must be remembered, however, that although the use of respirators should be encouraged among workers in dusty industries, a respirator cannot be regarded as a final safeguard. In mining, effort to prevent the formation of dust and its distribution by the mine air by the use of hollow drill steel and water and sprays should be continued.

/s/ Charles S. Merriam
/t/ CHARLES S. MERRIAM
Maj Inf
Mining and Geology Division

Copy furnished:
CAS, Mr Tom

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Natural Resources Division
A & F
M,G & F CFB
I & T
File

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Civil Affairs Section
APO 500

630.1 (4 Mar 1950)CAS-EN

SUBJECT: Mine Safety Reports

21 MAR 1950
Nat. Resources Division
File No. M-3-G

TO: Chief, Hokkaido Civil Affairs Region, APO 7-5
Chief, Tohoku Civil Affairs Region, APO 547
Chief, Kanto Civil Affairs Region, APO 500
Chief, Tokai-Hokuriku Civil Affairs Region, APO 710
Chief, Kinki Civil Affairs Region, APO 25
Chief, Chugoku Civil Affairs Region, APO 248
Chief, Shikoku Civil Affairs Region, APO 1050
Chief, Kyushu Civil Affairs Region, APO 24-5

1. The reports on coal and metal mine safety contained in Annex D of the January Activities reports were of great interest and assistance to this headquarters. They brought to light some conditions which, although suspected to exist, were not definitely known. As a result, it was possible to give positive statements of deficiencies to the Chief of the Mine Safety Bureau, Ministry of International Trade and Industry, with recommendations for correction thereof. He has already sent instructions to the regional offices of the Bureau designed to improve the type of safety inspections at the mines, and has sent Bureau officials to follow up on his instructions.

2. Information on the mine safety program in future reports will be continued along the same general line as those in the January reports, except that it will not be necessary to furnish statistical data on accidents in as great detail, unless it is desired to use the data as a means of indicating improvement or non-improvement in general conditions. Of particular value was the type of information furnished by some of the regions that mine inspectors are not making adequate inspections or that they are lax in fulfillment of their duties. Observations on activities on mine safety committees are also desirable.

3. Prompt action will be taken by this headquarters through the Mine Safety Bureau to expedite the implementation of appropriate recommendations.

FOR THE CHIEF, CIVIL AFFAIRS SECTION:

DECLASSIFIED
A. O'BRIEN
DWC USA
Adm Off

File Index
No 17 CAS 850

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3-6

File
Mine safety

Status of requests for exceptions from Provisions of Mine Safety Law as of 31 Jan.

File Index
No. 16

Hiroshima Mine Safety and Inspection Division.

| | 申請 | | 許可 | | 不許可 | | 保留又は処理中 | |
|---|---|---|---|---|---|---|---|---|
| | 鉱山数 | 件数 | 鉱山数 | 件数 | 鉱山数 | 件数 | 鉱山数 | 件数 |
| Ordinary exceptions 適用除外申請 | 25 | 50 | 23 | 38 | 4 | 10 | 2 | 2 |
| Special " 特別許可申請 | 43 | 68 | 40 | 56 | 5 | 8 | 4 | 4 |

25. 2. 9. 現在

廣島鑛山保安監督部

許可、不許可、のものは 検査済

7 Feb 1950

applies to new mines & developmental activities.

in accordance with art II, 14

the dir chief may give local approval.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3-6

Page 1 of 2 pages in this accident

Accident Page 2 of 2 pages in this accident

Number of casualities and persentage by cause in

| Classification: Cause | Month: Jul. No. of Cas. | Jul. rate % | Aug. No. of Cas. |
|---|---|---|---|
| ~~Falls of roof or side~~ Cave-in | 3 | 2 | 3 |
| Gas poisoning or suffocation | 1 | 1 | |
| Blasting or explosion of explosives | | | |
| ~~Shaft winding~~ ~~instration~~ winch accidents | | | |
| Mine Cars (Push cars) + electric cars | 22 | 18 | 9 |
| ~~Transportation instration~~ Conveyor Belt | 2 | 2 | |
| Machinery excluding winch + transportation | 4 | 3 | |
| Flying or bounding stones | 44 | 36 | 2 |
| Tools hand | 9 | 7 | 1 |
| Falls all types short distance | 5 | 4 | |
| Upset tumble slipping on surface | 13 | 11 | |
| Careless footing stumble or fall (rails rubbish etc) | 7 | 6 | 4 |
| ~~Others~~ Gen. carelessness | 12 | 10 | 1 |
| Total | 121 | 100 | 7 |
| Blasting or explosion of explosives | | | |
| Mine Cars | 2 | 5 | 1 |
| Aerial cableway | | | |
| Machinery | 4 | 10 | 3 |
| Electricity | 1 | 2 | |
| ~~Candescent melting~~ Burns | 1 | 2 | |
| Tools hand | 5 | 14 | 1 |
| Fall from height | 4 | 10 | |
| Upset slipping | 2 | 5 | |
| Careless footing | 2 | 5 | |
| Others Carelessness | 18 | 49 | |
| Total | 39 | 100 | 2 |
| Grand total — underground | 160 | 76 | 10 |
| Grand total — surface | | 24 | |

Transporting Conveying facilities other than Mine cars

Underground

Surface

991

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Hiroshima Mine Safety and

...alities and persentage by cause in all mines. For the later half period of 1

| Month | Jul. | | Aug. | | Sep. | | Oct. | | Nov. | | Dec. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of cas. | rate (%) |
| ~~fall of side~~ Cave-in | 3 | 2 | 3 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 4 | 7 |
| suffocation | 1 | 1 | | | | | | | | | 2 | 3 |
| ...sion of explosives | | | | | | | | | | | | |
| ...stration winch accidents | | | | | 1 | 1 | 1 | 1 | | | | |
| ...cars) + electric cars | 22 | 18 | 9 | 13 | 14 | 15 | 10 | 11 | 16 | 17 | 5 | 8 |
| ...nistration (Conveyor Belt | 2 | 2 | | | | | | | 1 | 1 | 6 | 10 |
| ...ding wood + transportation | 4 | 3 | 3 | 4 | 5 | 5 | 1 | 1 | 6 | 6 | 1 | 2 |
| ...nding stones | 44 | 36 | 26 | 35 | 29 | 31 | 39 | 45 | 38 | 39 | 17 | 30 |
| ...and | 9 | 7 | 10 | 13 | 11 | 12 | 9 | 10 | 8 | 8 | 7 | 11 |
| ...ty types short distance | 5 | 4 | | | 2 | 2 | 2 | 2 | 1 | 1 | | |
| ...slipping on surface | 13 | 11 | 9 | 13 | 16 | 16 | 8 | 9 | 6 | 6 | 7 | 11 |
| ...oting ~~sh~~ + (rails ~~sc~~ ~~nitro~~ tabr) | 7 | 6 | 4 | 5 | 1 | 1 | 2 | 2 | 7 | 7 | 3 | 5 |
| ...carelessness | 12 | 10 | 10 | 13 | 11 | 12 | 16 | 18 | 13 | 13 | 8 | 13 |
| | 121 | 100 | 74 | 100 | 95 | 100 | 89 | 100 | 98 | 100 | 60 | 100 |
| ...losion of explosives | | | | | | | 3 | 9 | | | 2 | 7 |
| | 2 | 5 | 7 | 25 | 6 | 13 | 10 | 30 | 3 | 11 | 5 | 19 |
| ...ay | | | | | 2 | 4 | 2 | 6 | | | 1 | 4 |
| | 4 | 10 | 3 | 11 | 7 | 15 | | | 2 | 7 | 2 | 8 |
| ...tricity | 1 | 2 | 4 | 14 | | | | | | | | |
| ...ting Burns | 1 | 2 | 1 | 4 | | | 2 | 6 | | | | |
| | 5 | 14 | 1 | 4 | 5 | 11 | 5 | 15 | 4 | 13 | 5 | 19 |
| ...ght | 4 | 10 | | | 1 | 2 | | | 1 | 4 | 1 | 4 |
| ...Boring | 2 | 5 | 2 | 7 | 5 | 11 | 3 | 9 | 3 | 11 | 3 | 12 |
| ...ng | 2 | 5 | 2 | 7 | 2 | 4 | 1 | 3 | 1 | 4 | 1 | 4 |
| Carelessness | 18 | 47 | 8 | 28 | 18 | 40 | 8 | 22 | 14 | 50 | 6 | 23 |
| | 39 | 100 | 28 | 100 | 45 | 100 | 34 | 100 | 28 | 100 | 26 | 100 |
| underground | 160 | 76 | 102 | 73 | 141 | 67 | 123 | 72 | 126 | 78 | 86 | 75 |
| surface | | 24 | | 27 | | 33 | | 28 | | 22 | | 25 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Hiroshima Mine Safety and Inspection Division.

cause in all mines. For the later half period of 1949.

| | Aug. | | Sep. | | Oct. | | Nov. | | Dec. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of cas. | rate (%) | No. of Cas. | rate (%) |
| 2 | 3 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 4 | 7 | 18 | 3 |
| 1 | | | | | | | | | 2 | 3 | 3 | 0.6 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | 2 | 0.4 |
| | | | 1 | 1 | 1 | 1 | | | | | | |
| 18 | 9 | 13 | 14 | 15 | 10 | 11 | 16 | 17 | 5 | 8 | 25 | 14 |
| 2 | | | | | | | 1 | 1 | 6 | 10 | 9 | 2 |
| 3 | 3 | 4 | 5 | 5 | 1 | 1 | 6 | 6 | 1 | 2 | 20 | 4 |
| 36 | 26 | 35 | 29 | 31 | 39 | 45 | 38 | 39 | 17 | 30 | 193 | 36 |
| 7 | 10 | 13 | 11 | 12 | 9 | 10 | 8 | 8 | 7 | 11 | 54 | 10 |
| | | | 2 | 2 | 2 | 2 | 1 | 1 | | | 10 | 2 |
| 4 | | | | | | | | | 7 | 11 | 59 | 11 |
| 11 | 9 | 13 | 16 | 16 | 8 | 9 | 6 | 6 | 3 | 5 | 24 | 4 |
| 6 | 4 | 5 | 1 | 1 | 2 | 2 | 7 | 7 | 8 | 13 | 70 | 13 |
| 10 | 10 | 13 | 11 | 12 | 16 | 18 | 13 | 13 | 60 | 100 | 537 | 100 |
| 100 | 74 | 100 | 95 | 100 | 89 | 100 | 98 | 100 | | | | |
| | | | | | 3 | 9 | | | 2 | 7 | 5 | 2 |
| 5 | 7 | 25 | 6 | 13 | 10 | 30 | 3 | 11 | 5 | 19 | 33 | 16 |
| | | | 2 | 4 | 2 | 6 | | | 1 | 4 | 5 | 2 |
| 10 | 3 | 11 | 7 | 15 | | | 2 | 7 | 2 | 8 | 18 | 10 |
| | | | | | | | | | | | 5 | 2 |
| 2 | 4 | 14 | | | | | | | | | 4 | 2 |
| 2 | 1 | 4 | | | 2 | 6 | | | | | | |
| 14 | 1 | 4 | 5 | 11 | 5 | 15 | 4 | 13 | 5 | 19 | 25 | 12 |
| | | | 1 | 2 | | | 1 | 4 | 1 | 4 | 7 | 3 |
| 10 | | | | | | | | | | | | |
| 5 | 2 | 7 | 5 | 11 | 3 | 9 | 3 | 11 | 3 | 12 | 18 | 10 |
| 5 | 2 | 7 | 2 | 4 | 1 | 3 | 1 | 4 | 1 | 4 | 9 | 4 |
| 47 | 8 | 28 | 18 | 40 | 8 | 22 | 14 | 50 | 6 | 23 | 72 | 37 |
| 100 | 28 | 100 | 41 | 100 | 34 | 100 | 28 | 100 | 26 | 100 | 201 | 100 |
| 76/24 | 102 | 73/27 | 141 | 69/33 | 123 | 72/28 | 126 | 78/22 | 86 | 75/25 | 738 | 73/29 |

File Index No. 13

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Number of casualities and persentage by cause in Metal mine. Fr

| Classification: Cause \ Month | | Jul. | | Aug. | | Sep. | |
|---|---|---|---|---|---|---|---|
| | | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) |
| Under-ground | Falls of roof or side | 3 | 3 | 3 | 4 | 5 | 6 |
| | Gas poisoning or suffocation | 1 | 1 | | | | |
| | Blasting or explosion of explosives | | | | | | |
| | Shaft winding instration | | | | | 1 | 1 |
| | Mine cars | 21 | 18 | 8 | 11 | 13 | 14 |
| | Transportation instration | 2 | 2 | | | | |
| | Machinery | 4 | 3 | 3 | 4 | 5 | 6 |
| | Flying or bounding stones | 43 | 37 | 26 | 35 | 29 | 31 |
| | Tools | 8 | 6 | 10 | 14 | 11 | 12 |
| | Fall | 4 | 3 | | | 2 | |
| | Upset | 13 | 12 | 9 | 12 | 16 | 16 |
| | Careless footing | 6 | 5 | 4 | 6 | 1 | |
| | Others | 11 | 10 | 10 | 14 | 8 | 9 |
| | Total | 116 | 100 | 73 | 100 | 91 | 100 |
| Surface | Blasting or explosion of explosives | | | | | | |
| | Mine cars | 2 | 6 | 6 | 23 | 6 | 17 |
| | Aerial cableway | | | | | 2 | 5 |
| | Machinery | 2 | 6 | 3 | 12 | 7 | 16 |
| | Electricity | 1 | 3 | 4 | 15 | | |
| | Candescent melting | 1 | 3 | 1 | 4 | | |
| | Tools | 5 | 13 | 1 | 4 | 5 | 11 |
| | Fall | 4 | 10 | | | 1 | 2 |
| | Upset | 2 | 6 | 2 | 8 | 5 | 11 |
| | Careless footing | 2 | 6 | 2 | 8 | 2 | 5 |
| | Others | 17 | 47 | 7 | 26 | 17 | 37 |
| | Total | 36 | 100 | 26 | 100 | 45 | 100 |
| Grand total | underground | 152 | 76 | 99 | 74 | 136 | 67 |
| | surface | | 24 | | 26 | | 33 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Hiroshima Mine Safety & Inspection Division.

...e by cause in Metal mine. For the later half period of 1947.

| | Jul. | | Aug. | | Sep. | | Oct. | | Nov. | | Dec. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) |
| | 3 | 3 | 3 | 4 | 5 | 6 | 1 | 1 | 2 | 2 | 4 | 7 | 18 | 3 |
| | 1 | 1 | | | | | | | | | 2 | 3.4 | 3 | 0.6 |
| | | | | | | | | | | | | | | |
| | | | | | 1 | 1 | 1 | 1 | | | | | 2 | 0.4 |
| | 21 | 18 | 8 | 11 | 13 | 14 | 10 | 12 | 16 | 16 | 5 | 8 | 73 | 14 |
| | 2 | 2 | | | | | | | 1 | 1 | 6 | 10 | 9 | 2 |
| | 4 | 3 | 3 | 4 | 5 | 6 | 1 | 1 | 6 | 6 | 1 | 1.6 | 20 | 4 |
| | 43 | 37 | 26 | 35 | 29 | 31 | 36 | 43 | 37 | 38 | 17 | 28 | 188 | 36 |
| | 8 | 6 | 10 | 14 | 11 | 12 | 8 | 10 | 8 | 8 | 7 | 12 | 52 | 10 |
| | 4 | 3 | | | 2 | 2 | 2 | 2 | 1 | 1 | | | 9 | 2 |
| | 13 | 12 | 9 | 12 | 16 | 18 | 8 | 10 | 6 | 6 | 7 | 12 | 59 | 11 |
| | 6 | 5 | 4 | 6 | 1 | 1 | 1 | 1 | 7 | 7 | 3 | 5 | 22 | 4 |
| | 11 | 10 | 10 | 14 | 8 | 9 | 15 | 19 | 13 | 15 | 8 | 13 | 65 | 13 |
| | 116 | 100 | 73 | 100 | 91 | 100 | 83 | 100 | 97 | 100 | 60 | 100 | 520 | 100 |
| | | | | | | | 3 | 9 | | | 2 | 8 | 5 | 3 |
| | 2 | 6 | 6 | 23 | 6 | 13 | 10 | 30 | 3 | 11 | 5 | 19 | 32 | 16 |
| | | | | | 2 | 4 | 2 | 6 | | | 1 | 4 | 5 | 3 |
| | 2 | 6 | 3 | 12 | 7 | 16 | | | 2 | 7 | 2 | 8 | 16 | 8 |
| | 1 | 3 | 4 | 15 | | | | | | | | | 5 | 3 |
| | 1 | 3 | 1 | 4 | | | 2 | 6 | | | | | 4 | 2 |
| | 5 | 13 | 1 | 4 | 5 | 11 | 5 | 15 | 4 | 14 | 5 | 19 | 25 | 12 |
| | 4 | 10 | | | 1 | 2 | | | 1 | 4 | 1 | 4 | 7 | 4 |
| | 2 | 6 | 2 | 8 | 5 | 11 | 3 | 9 | 3 | 11 | 3 | 12 | 18 | 9 |
| | 2 | 6 | 2 | 8 | 2 | 4 | 1 | 3 | 1 | 4 | 1 | 4 | 9 | 5 |
| | 17 | 47 | 7 | 26 | 17 | 39 | 8 | 22 | 14 | 49 | 6 | 22 | 69 | 35 |
| | 36 | 100 | 26 | 100 | 45 | 100 | 34 | 100 | 28 | 100 | 26 | 100 | 195 | 00 |
| | 152 | 76<br>24 | 99 | 74<br>26 | 136 | 67<br>33 | 117 | 71<br>29 | 125 | 78<br>22 | 86 | 70<br>30 | 715 | 73<br>27 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Number of casualities and persentage by cause in Lignite

| Classification / Month | Cause | Jul. No. of Cas. | Jul. rate (%) | Aug. No. of Cas. | Aug. rate (%) | S No. of Cas. |
|---|---|---|---|---|---|---|
| Under - ground | Falls of roof or side | | | 1 | 50 | |
| | Mine cars | | | 1 | 50 | 1 |
| | Flying or bounding stones | 1 | 20 | | | |
| | Tools | 1 | 20 | | | |
| | Fall | 1 | 20 | | | |
| | Careless footing | 1 | 20 | | | |
| | Others | 1 | 20 | | | 3 |
| | Total | 5 | 100 | 2 | 100 | 4 |
| Surface | Mine cars | | | 1 | 50 | |
| | Machinery | 2 | 67 | | | |
| | Others | 1 | 33 | 1 | 50 | 1 |
| | Total | 3 | 100 | 2 | 100 | 1 |
| Grand Total | Underground | 8 | 63 | 4 | 50 | 5 |
| | Surface | | 37 | | 50 | |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Hiroshima Mine Safety & Inspection Divis

and persentage by cause in Lignite mine / For the later half period of 19

| Month | Jul. | | Aug. | | Sep. | | Oct. | | Nov. | | Dec. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) |
| | | | 1 | 50 | | | | | | | | | 1 | 6 |
| | | | 1 | 50 | 1 | 25 | | | | | | | 2 | 12 |
| | 1 | 20 | | | | | 3 | 49 | 1 | 100 | | | 5 | 27 |
| | 1 | 20 | | | | | 1 | 17 | | | | | 2 | 12 |
| | 1 | 20 | | | | | | | | | | | 1 | 6 |
| | 1 | 20 | | | | | 1 | 17 | | | | | 2 | 12 |
| | 1 | 20 | | | 3 | 75 | 1 | 17 | | | | | 5 | 27 |
| | 5 | 100 | 2 | 100 | 4 | 100 | 6 | 100 | 1 | 100 | 0 | - | 18 | 100 |
| | | | 1 | 50 | | | | | | | | | 1 | 17 |
| | 2 | 67 | | | | | | | | | | | 2 | 33 |
| | 1 | 33 | 1 | 50 | 1 | 100 | | | | | | | 3 | 50 |
| | 3 | 100 | 2 | 100 | 1 | 100 | 0 | - | 0 | - | 0 | - | 6 | 100 |
| nd | 8 | 63<br>37 | 4 | 50<br>50 | 5 | 80<br>20 | 6 | 100<br>0 | 1 | 100<br>0 | 0 | --- | 24 | 75<br>25 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Hiroshima Mine Safety & Inspection Division.

by cause in Lignite mine / For the later half period of 1949.

| Jul. | | Aug. | | Sep. | | Oct. | | Nov. | | Dec. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Cas. | rate (%) | No. of Css. | rate (%) |
| | | 1 | 50 | | | | | | | | | 1 | 6 |
| | | 1 | 50 | 1 | 25 | | | | | | | 2 | 12 |
| 1 | 20 | | | | | 3 | 49 | 1 | 100 | | | 5 | 27.5 |
| 1 | 20 | | | | | 1 | 17 | | | | | 2 | 12 |
| 1 | 20 | | | | | | | | | | | 1 | 6 |
| 1 | 20 | | | | | 1 | 17 | | | | | 2 | 12 |
| 1 | 20 | | | 3 | 75 | 1 | 17 | | | | | 5 | 27.5 |
| 5 | 100 | 2 | 100 | 4 | 100 | 6 | 100 | 1 | 100 | 0 | — | 18 | 100 |
| | | 1 | 50 | | | | | | | | | 1 | 17 |
| 2 | 67 | | | | | | | | | | | 2 | 33 |
| 1 | 33 | 1 | 50 | 1 | 100 | | | | | | | 3 | 50 |
| 3 | 100 | 2 | 100 | 1 | 100 | 0 | — | 0 | — | 0 | — | 6 | 100 |
| 8 | 63<br>37 | 4 | 50<br>50 | 5 | 80<br>20 | 6 | 100<br>0 | 1 | 100<br>0 | 0 | --- | 24 | 75<br>25 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

The List of Dealment of "Applic

Nat. Res. Division
File No. M-3-6

| Name of coal mine / Art. | 74 | 78 | 79 | 80 | 86 | 87 | 88 | 91 | 92-1 | 94 | 96 | 98 | 102-1 | 107-2 | 108 | 112 | 113 | 135-1 | 140 | 141 | 142 | 146 | 147 | 148 | 153-2 | 180-1 | 201 | 202 | 203 | 204 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Okinoyama | | ○ | | | | | | | | | | | | | | ○ | ○ | | | | | | | | | | | | | |
| Higashimisome | ○ | ○ | | | | | | | ○ | | ○ | ○ | ○ | | | ○ | | | | | | | | | | | | | | ○ |
| Okube | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ofuse | | | | | | | | | | ○ | | | | ○ | | | | | | | | | | | | | | | | |
| Matuhama | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tokiwa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Higashiube | | | | | | | | | | ○ | | | | ○ | | | | | | | | | | | | | | ○ | ○ | |
| Misomeshin | | | | | | | | | | | | | | | | | | | | | | | | | | | | ○ | ○ | |
| Kamiube | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yamaguchi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Higashi-Kagigaubi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Houkou | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Momoyama | | | | ○ | | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Shinmisome | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uzi-Kamitsube | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kamihara | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oumae | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Higashi-Kamihara | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maebisu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nagazawa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chigoushin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Daini-Suzumeda | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kozima | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Matuzu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nagimori | | | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Daini-Sinohi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Houkoken | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Okita | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kanamoto | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kunaki | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kamioki | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miyata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jenigahara | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Motoyama | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ouhama | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sakurayama | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Onoda | ○ | ○ | | ○ | | | | | | | | | | | | | | | | | | | | | | | | ○ | ○ | ○ |
| Nakahara | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Suzumeda | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hirabara | | | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Higashi-Onoda | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nakayama | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nakaoki | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minamiasa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ariho | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sanseimmen | ○ | ○ | | | | | | | | | | | | | | ○ | | | | | | | | | | | | ○ | | |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

of "Applications for Exemption" (Jan. 31) of Mine Safety Regulation

File Index No. 7

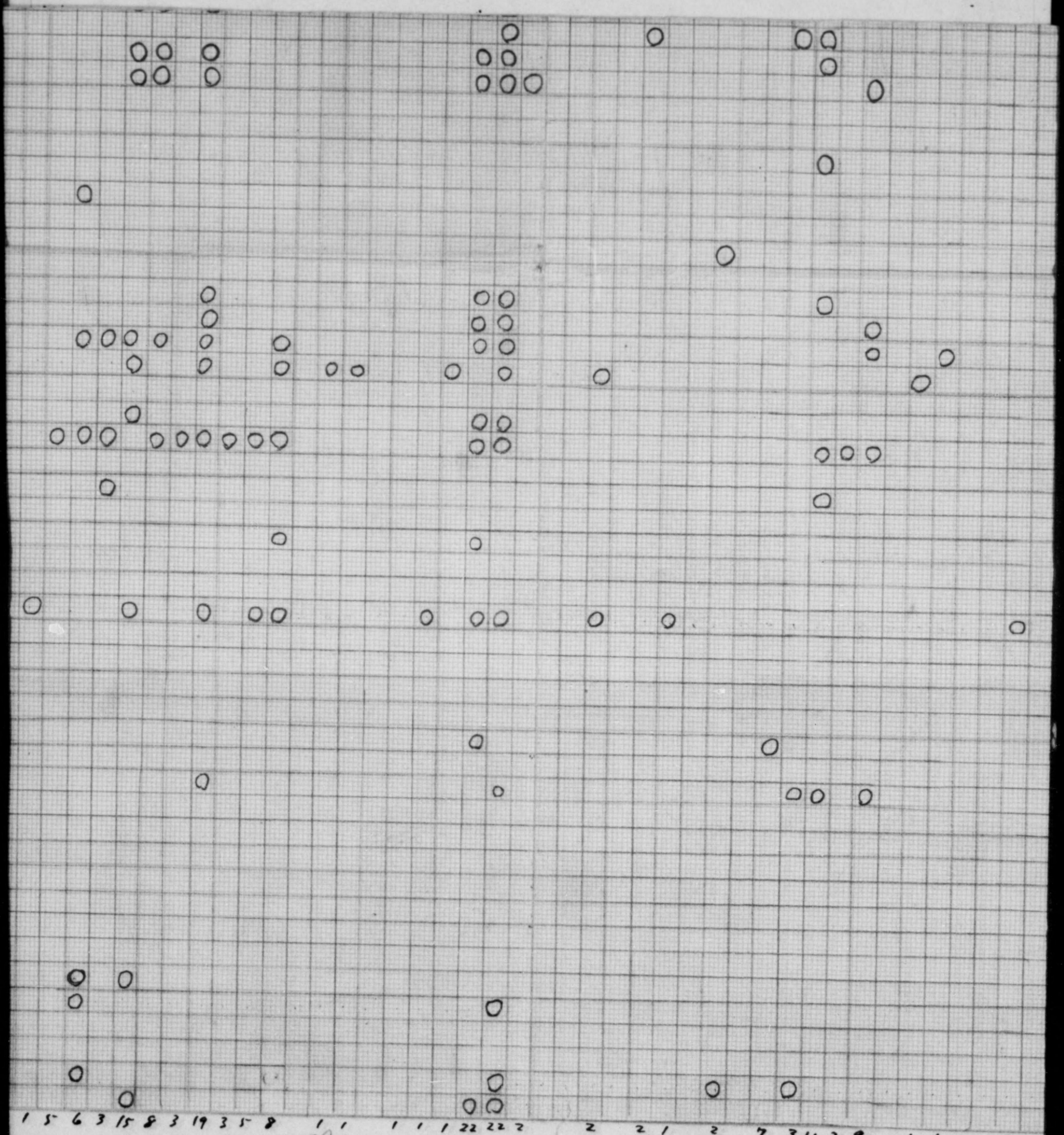
DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Mine Safety Regulations Ube Coal Mine Safty and Inspection Division

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kozima | | | | | | | | | | | | | | O | | | | | | | | | | | | | | |
| Matuzu | | | | | | | | | | O | | | | | | | | | | | | | | | | | | |
| Kagimori | | | O | | | | | | | | | | | | | | | | | | | | | | | | | |
| Daini-sinohi | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Koukoku | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Okita | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kanamoto | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kunaki | | | | | | | | | | | | | | | | | | | | | | | | | | | | O |
| Kamioki | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miyata | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jenigahara | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Motoyama | | | | | | | | | O | | | | | | | | | | | | | | | | | | | |
| Ouhama | | | | | | | | | | O | | | | | | | | | | | | | | | | | | |
| Sakurayama | | | | | O | | | | | | | | | | | | | | | | | | | | | | | O |
| Onoda | O | O | | O | | | | | | | O | | | | | O | | | | | | | O | | | | | |
| Nakahara | | | | | | | | | | | | | | O | | | | | | | | | | | | | | |
| Suzumeda | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kirabara | | | O | | | | | | | O | | | | | | | | | | | | O | O | O | | | O | O |
| Higashi-onoda | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wakayama | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asa | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nakaoki | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minamiasa | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ariho | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sangounuen | O | O | | | | | | | | | O | | | | | O | | | | | | | | | | O | | |
| Enokiyama | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kouda | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mitozo | | | | | | | | | | O | | | | O | | | | | | | | | | | | | | |
| Okibe | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kabu | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mikuku | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Takiguchi | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Taimei | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ikuta | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ouhira | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kagimine | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mine | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nishimine | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Niga | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Takane | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shimane-honkoku | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sanin | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Matue | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nagato | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Riuon | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 4 | 3 | 1 | 1 | | | 2 | | 6 | 3 | | 1 | 6 | | 4 | 1 | | | | | 1 | 2 | 1 | | 1 | 5 | |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

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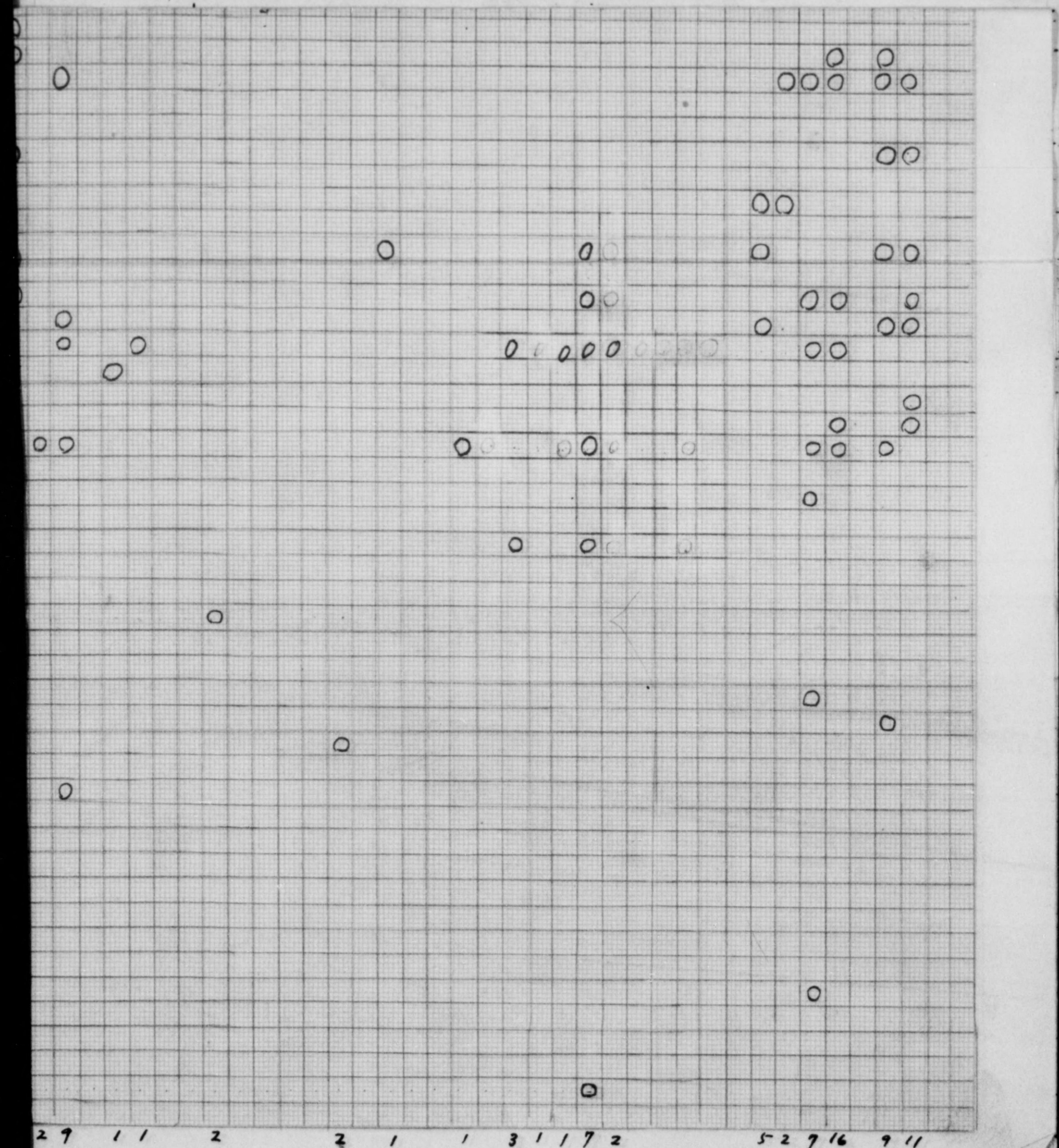

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

File M-3-6
Safety

Nat. Res. Division
File No. M-3-6

Hiroshima Mine
Safety conference

Chief
Hashizume Yoshio
mine inspector in 2nd class (1)

vice chief
Kano Yuzuru
mine inspector in 2nd class (2)

Personnel of scholarship & experience
- Mr. Koteguchi Tomio
  ex-head & director in Mitsui Mining Co., Ltd
- Mr. Higuchi Seiichi
  prof. in Yamaguchi Technical College

delegate of mining right owner
- Mr. Inoue Chuji
  chief in mining section, Yanahara Mine, Dowa Mining Co., Ltd
- Mr. Yonemura Masatoshi
  chief in mining section, Kawayama Mine, Nippon Mining Co, Ltd.
- Mr. Nishimura Tashio
  chief engineer in Hibi Smelter, Mitsui Mining Co., Ltd
- Mr. Sato Hachiro
  head of Wanibuchi Mine, Showa mining Co, Ltd

delegate of mine laborer
- Mr. Uyama Teiji
  staff operative in mining spot, Yanahara Mine
- Mr. Shoji Masazo
  chief clerk in charge of electricity, Machine work section, Kawayama,
- Mr. Goto Hajime
  chief in mining affairs in Wanibuchi mine
- Mr. Kumashiro Torajiro
  staff operative in smelting spot in Hibi Smelter
- Mr. Yamashita Fumio
  chief in operation spot in Uetsuki lignite mine, Chuo Spining Co, Ltd

Structure of Hiroshima Mine (includes Lignite)

chief clerk in management duty
Kakiuchi Seishiro
mine inspector in 3rd class (3)

chief clerk in supervision duty
Yoshioka Masaji
mine inspector in 3rd class (4)

chief clerk in facility duty
Kano Yuzuru
(additional post)

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# Structure of Hiroshima Mine (includes Lignite) Safety and Inspection Division (excluding coal)

chief clerk in management duty
Kakiuchi Seishiro
mine inspector in 3rd class (3)

senior official in charge of general affairs
Kanasugi Masayoshi
C&I.T secretary in 3rd class 1
— Yasuda Kan
employee

senior official in charge of inquiry
Nishinaka Toshio
C.&I.T. technical official in 3rd class 2
— Masuhara Hidemi
Employee

senior official in charge of summary
Yoshioka Masaji
(additional post)

chief clerk in supervision duty
Yoshioka Masaji
mine inspector in 3rd class (4)

senior official in charge of metal mine affairs
Kurata Katsuji
C&I.T technical official in 3rd class 3

senior official in charge of none metal mine affairs
Ikeda Akira
mine inspector in 3rd class (5)

senior official in charge of lignite mine affairs
Fukuda Nobuyoshi
mine inspector in 3rd class (6)

chief clerk in facility duty
Kano Yuzuru
(additional post)

senior official in charge of facility affairs
Taniyama Tetsuo
mine inspector in 3rd class (7)

Total 12 personnal.
(7 inspectors)

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File Index No. 11

and Inspection
fety, Division (excluding coal)

senior official in charge of general affairs
— Kanasugi Masayoshi ——— Yasuda Kan ✓
C&I.T secretary in 3rd class ✓ employee

senior official in charge of inquiry
— Nishinaka Toshio ——— Masuhara Hidemitsu
C.&I.T. technical official in 3rd class 2 employee ✓

senior official in charge of summary
— Yoshioka Masaji
(additional post)

senior official in charge of metal mine affairs
— Kurata Katsuji
C&I.T. technical official in 3rd class 3

senior official in charge of none metal mine affairs
— Ikeda Akira
mine inspector in 3rd class (5)

senior official in charge of lignite mine affairs
— Fukuda Nobuyoshi
mine inspector in 3rd class (6)

senior official in charge of facility affairs
— Taniyama Tetsuo
mine inspector in 3rd class (7)

Total 12 personnel.
(7 inspectors)

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# Allotment of office duties in Hiroshima Mine Safety and Inspection Division

I In management duty following business are transacted :

1 business concerning to summary & adjustment
2 " personnel affairs & secret affairs
3 " budget
4 " reception & sending of official documents
5 " custody of official seal
6 " safety law & regulation
7 " Hiroshima District Mine Safety Conference
8 " open hearing
9 " procedure of supervision & orders
10 " procedure of safety rule
11 " safety technical staffs
12 " collection, compilation & statistic of materials for safety
13 " fund & materials for safety
14 business belong to no other duties

II In supervision duty following business are transacted :

1 business concerning to guidance for safety commission
2 " education & direction to safety
3 " counter measures to disasters & improvement of safety technique
4 " examination of safety rule
5 " safety supervision & orders
6 " disasters & accidents
7 " safety maps
8 " special mining plan
9 " prevention of public damage
10 " safety subjects in mine operation draft

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11 " safety technical staffs
12 " collection, compilation & statistic of materials for safety
13 " fund & materials for safety
14 business belong to no other duties

II In supervision duty following business are transacted:
1 business concerning to guidance for safety commission
2 " Education & direction to safety
3 " counter measures to disasters & improvement of safety technique
4 " examination of safety rule
5 " safety supervision & orders
6 " disasters & accidents
7 " safety map
8 " special mining plan
9 " prevention of public damage
10 " safety subjects in mine operation draft

III In facility duty following business are transacted:
1 business concerning to education on & guidance to safety of building, equipment & other facilities (hereinafter these are collectively named "facilities")
2 counter measures to disaster & improvement of safety technique on facilities
3 examination & permission of facilities
4 safety supervision of facilities & orders
5 capability examination of facilities

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Last b

A statistical table f

| Month | No. of accident | Dead | Serious ~~Heavy~~ injury | Slight injury | Total | ~~Turnover~~ Production (ton) | No. of workers | Per 1,000 to No. of accident | Dead | Po |
|---|---|---|---|---|---|---|---|---|---|---|
| July | 1317 | 4 | 342 | 972 | 1318 | 246,692 | 31,168 | 534 | 0.016 | |
| August | 1178 | 5 | 316 | 864 | 1185 | 244,082 | 30,667 | 4.83 | 0.020 | |
| September | 1357 | 1 | ~~306~~ 302 | 1056 | 1359 | 251,541 | 29,423 | 5.39 | 0.004 | |
| October | 1245 | 3 | 267 | 981 | ~~1270~~ 1251 | 205.656 | 27,207 | 6.07 | 0.015 | |
| November | 1266 | 5 | 213 | 1052 | 1270 | 208980 | 25,807 | 6.06 | 0.024 | |
| December | 1186 | 8 | 232 | 952 | 1192 | 224,289 | 24,702 | 5.38 | 0.036 | |
| Total | 7549 | 26 | 1672 | 5877 | 7575 | 1381,240 | 168.962 | 5.46 | 0.019 | |

Production per miner

| | |
|---|---|
| Jul | 7.8 ton |
| Aug | 7.8 " |
| Sep | 8.5 " |
| Oct | 7.5 " |
| Nov | 8.1 " |
| Dec | 9.0 " |

342 / 972 / 1251

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3

# A statistical table of accident July - Dec. 1919

| Production (ton) | No. of workers | Per 1,000 ton of Production: No. of accident | Dead | Heavy injury | Slight injury | Total | Per 1,000 men of workers: No. of accident | Dead | Heavy injury | Slight injury | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 246,692 | 31,168 | 5.34 | 0.016 | 1.39 | 3.94 | 5.35 | 42.3 | 0.13 | 11.0 | 31.2 | 42.3 |
| 244,082 | 30,661 | 4.83 | 0.020 | 1.30 | 3.54 | 4.86 | 38.4 | 0.16 | 10.3 | 28.2 | 38.7 |
| 251,541 | 29,423 | 5.39 | 0.004 | 1.20 | 4.20 | 5.41 | 46.1 | 0.03 | 10.3 | 35.9 | 46.2 |
| 205,656 | 27,201 | 6.07 | 0.015 | 1.30 | 4.78 | 6.10 | 45.7 | 0.11 | 9.8 | 36.1 | 46.0 |
| 208,980 | 25,807 | 6.06 | 0.024 | 1.02 | 5.04 | 6.08 | 49.0 | 0.19 | 8.3 | 40.7 | 49.2 |
| 224,289 | 24,702 | 5.38 | 0.036 | 1.03 | 4.24 | 5.31 | 48.0 | 0.32 | 9.4 | 38.6 | 48.3 |
| 1381,240 | 168,962 | 5.46 | 0.019 | 1.21 | 4.25 | 5.48 | 44.6 | 0.15 | 9.9 | 34.7 | 44.8 |

Accident rate per 1000 tons

Divided no accidents

Accident no of accid

Production per month

| | | Accident Rate per 1000 tons | Accident no of accid Production (t |
|---|---|---|---|
| Jul | 7.8 ton | 5.35 | 42.3 |
| Aug | 7.8 " | 4.86 | 38.7 |
| Sep | 8.5 " | 5.41 | 46.2 |
| Oct | 7.5 " | 6.10 | 46.0 |
| Nov | 8.1 " | 6.08 | 49.2 |
| Dec | 9.0 " | 5.31 | 48.3 |

File No.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3-G

# ...f accident July - Dec. 1919

| ...000 ton ~~Production~~ | | | | Per 1000 men ~~F~~ workers men | | | | |
|---|---|---|---|---|---|---|---|---|
| ...ad | Heavy injury | Slight injury | Total | No. ~~F~~ accident | dead | Heavy injury | Slight injury | Total |
| ...16 | 1.39 | 3.94 | 5.35 | 42.3 | 0.13 | 11.0 | 31.2 | 42.3 |
| ...20 | 1.30 | 3.54 | 4.86 | 38.4 | 0.16 | 10.3 | 28.2 | 38.7 |
| ...04 | 1.20 | 4.20 | 5.41 | 46.1 | 0.03 | 10.3 | 35.9 | 46.2 |
| ...15 | 1.30 | 4.78 | 6.10 | 45.7 | 0.11 | 9.8 | 36.1 | 46.0 |
| ...24 | 1.02 | 5.04 | 6.08 | 49.0 | 0.19 | 8.3 | 40.7 | 49.2 |
| ...36 | 1.03 | 4.24 | 5.31 | 48.0 | 0.32 | 9.4 | 38.6 | 48.3 |
| ...19 | 1.21 | 4.25 | 5.48 | 44.6 | 0.15 | 9.9 | 34.7 | 44.8 |

approx .02 %
20 %

Accident rate per 1000 tons

...d no accidents

~~Injury + death~~ ~~Casualty Rate~~ per ~~1000 ton~~

5.35 ~~per~~ men
4.86
5.41
6.10
6.08
5.31

accident ~~Injury + death~~ ~~Casualty Rate~~ per 1000 ~~Workers~~ miners

42.3 ~~per~~ men
38.7
46.2
46.0
49.2
48.3

No ~~F~~ accid

Production (1000 tons)

File Index
No. 9

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Nat. Res. Division
File No. M-3-G

Number of Mine by Number of Worker

Metal & none metal mine (as of 31st Dec. 1949)

| Pref. / Number of Worker | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | — | — | 6 |
| 1~5 | 3 | — | 4 | 3 | 2 | 12 |
| 6~10 | 6 | 6 | 6 | 4 | — | 22 |
| 11~30 | 6 | 4 | 11 | 9 | 4 | 34 |
| 31~50 | 1 | -- | 4 | 2 | 1 | 8 |
| 51~100 | — | — | — | 6 | 1 | 7 |
| 101~150 | — | — | — | 2 | 1 | 3 |
| 151~500 | — | (1) | 1 | — | — | 1(1) |
| 501~1,000 | (1) | — | 1(1) | — | — | 1(2) |
| 1,001~1,500 | — | — | — | — | — | — |
| >1,500 | 1 | — | — | — | — | 1 |
| total | 18(1) | 12(1) | 30(1) | 26 | 9 | 95(3) |

note; SMELTER---( )

Lignite mine

| | | | | | | |
|---|---|---|---|---|---|---|
| 1~5 | — | — | — | 1 | — | 1 |
| 6~10 | 1 | 1 | — | — | — | 2 |
| 11~30 | 2 | 2 | — | 2 | — | 6 |
| 31~50 | 2 | — | — | — | — | 2 |
| total | 5 | 3 | — | 3 | — | 11 |
| grand total | 23(1) | 15(1) | 30(1) | 29 | 9 | 106(3) |

File Index
No. 8

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

# 鉱山労働者人数別鉱山数一覧表

(24.12.31現在)

金属山(非金属山を含む)

| 労働者数＼県名 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | — | — | 6 |
| 1～5 | 3 | — | 4 | 3 | 2 | 12 |
| 6～10 | 6 | 6 | 6 | 4 | — | 22 |
| 11～30 | 6 | 4 | 11 | 9 | 4 | 34 |
| 31～50 | 1 | — | 4 | 2 | 1 | 8 |
| 51～100 | — | — | — | 6 | 1 | 7 |
| 101～150 | — | — | — | 2 | 1 | 3 |
| 151～500 | — | (1) | 1 | — | — | 1 (1) |
| 501～1,000 | (1) | — | 1(1) | — | — | 1 (2) |
| 1,001～1,500 | — | — | — | — | — | — |
| 1,500以上 | 1 | — | — | — | — | 1 |
| 計 | 18(1) | 12(1) | 30(1) | 26 | 9 | 95(3) |

(注) 教鉱所……( )

亜炭山

| | | | | | | |
|---|---|---|---|---|---|---|
| 1～5 | — | — | — | 1 | — | 1 |
| 6～10 | 1 | 1 | — | — | — | 2 |
| 11～30 | 2 | 2 | — | 2 | — | 6 |
| 31～50 | 2 | — | — | — | — | 2 |
| 計 | 5 | 3 | — | 3 | — | 11 |
| 統計 | 23(1) | 15(1) | 30(1) | 29 | 9 | 106(3) |

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28th, Dec., 1949

To : Chugoku Civil Affairs Dep't, the chief
From : Hiroshima Mine Safety Security Division, the chief
Subject : Report on Mine Safety Affairs

I cincerely present here the monthly report on the mine safety affairs for the month of December and beg your good appreciation.

1. Mining and Geology

a. Mine Safety Program

(1) What has been done during the month in encouraging management to adopt safety measures and to educate laborers in safety practices of mining through publicity of the Mine Safty Law?

a-(I)

1. The name of the mines scheduled for the mine inspecting officials to inspect round are as shown in the following table (A):

Table (A)

| Pref. | Name of mine | Sub-total | total |
|---|---|---|---|
| Okayama | Yanahara, Hojo, Kanayama, Kochi Shin-bizen, Kojima, Tamashima Hibi | metal 4<br>~~Sub-coal~~ lignite 3<br>Smelter 1 | 8 |
| Hiroshima | Jimmu, Mihara, Tanoura, Setouchi Daiei, Obugane, Nittshkashoko Takasaka, Geibi, Sanpuku | Non-metal 7<br>~~Sub-Coal~~ lignite 3 | 10 |
| Yamaguchi | Sakane, Ashitani, Taisei, Atsuko, Sanyo, Tonoi Hikoshima | metal 6<br>Smelter 1 | 7 |
| Shimane | Gotsu, Kakushi, Daima, Kurosawa, Ino, Ikeda, Misaki Kanafuchi, Seimi, Hitachi-torigami Izumo, Chugoku, Kimitani | metal 10<br>~~Sub-coal~~ lignite 3 | 13 |
| Tottori | Iwami, Ogamo, Onji, Sekigane Daisan-itoshiromi | metal 5 | 5 |
| Grand total | | | 43 |

Safety measures inspectors have advised the head of the mines they inspected to take up are:

i) to keep every record exactly.

ii) to give a thorough safety education to mine laborers being occupied in dangerous work.

iii) to submit the selection application for the mine safety staffs.

iv) to submit the mine safety map

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| | | | |
|---|---|---|---|
| | | Smelter 1 | |
| Hiroshima | Jimmu, Mihara, Tanoura, Setouchi Daiei, Obugane, Nittshkashoko Takasaka, Geibi, Sanpuku | Non-metal 7 lignite ~~Sub Coal~~ 3 | 10 |
| Yamaguchi | Sakane, Ashitani, Taisei, Atsuho, Sanyo, Tonoi Hikoshima | metal 6 Smelter 1 | 7 |
| Shimane | Gotsu, Kakushi, Daima, Kurosawa, Ino, Ikeda, Misaki Karafuchi, Seimi, Hitachi-torigami Izumo, Chugoku, Kimitani | metal 10 lignite ~~Sub coal~~ 3 | 13 |
| Tottori | Iwami, Ogamo, Onji, Sekigane Daisan-itoshiromi | metal 5 | 5 |
| Grand total | | | 43 |

Safety measures inspectors have advised the head of the mines they inspected to take up are:

i) to keep every record exactly,

ii) to give a thorough safety education to mine laborers being occupied in dangerous work.

iii) to submit the selection application for the mine safety staffs.

iv) to submit the mine safety map

v) to submit application or notice promptly on the installations and equipments.

vi) to complete the fire-extinguishing equipments on the surface.

As for the disasters from the following items which seem to be dicreased by every worker's attention the inspectors advised the mine head to drill all workers in preventing the disasters of the kind.

i) underground

a. rock breaking

b. falling. Stumbling.

C tab.

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d. rock fall.

ii) Surface.

a. falling, stumbling.
b. machine and tools.
c. tub.

2. To the following mines inspectors examined round they have sent notifications to thoroughly observe the provisions of the Mine Safety Law.

i) Ikeda mine (Shimane-Pref.)
Metal mine safety regulation, Article 210, 213 (provisions for the prevension of falling and for the passing suspension.

ii) Hojo mine (Okayama-Pref.)
Metal mine Safety Regulation Article 212. item 3 (provision for the completion of the falling prevension equipment.)

iii) Karafuchi mine (Shimane-Pref.)

a. submission of the selection application for the mine safety staff.
b. submission of the mine safety map.
c. punctual presentation of the monthly report on disasters.
d. Metal mine Safety Regulation, Article 116~125 (provision for the examining pillar and ceiling rock.)
all provision for the open mining.
e. Metal mine Safety Regulation, Article 213 (provision for the passing suspensions.)

3. The counter action our division took up against the labor dispute at Yanahara Mine on Dec. 6th and 7th.

On the information that the all workers of the Yanahara Mine went on strike on the 5th of Dec. the division chief rushed to the mine and

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a. Submission of the selection application for the mine safety staff.
b. submission of the mine safety map.
c. punctual presentation of the monthly report on disasters.
d. Metal mine Safety Regulation, Article 116 ~ 125 (provision for the examining pillar, and ceiling rock.)
all provision for the open mining.
e. Metal mine Safety Regulation, Article 213 (provision for the passing suspension.)

3. The counter action our division took up against the labor dispute at Yanahara Mine on Dec. 6th and 7th.

On the information that the all workers of the Yanahara Mine went on strike on the 6th of Dec. the division chief rushed to the mine and acted as follows:

a) To the management side.
He advised to let minimum safety security members attend the mine in order to secure the mine safety by strict inspection.

b) To the labor union
He instructed the chairman and the vice chairman that the provisions of the Mine Safety Law included

i) prevension of the disasters against people
ii) protection of mineral resources
iii) good keeping of equipment
iv) prevension of the public damages caused by mining

and made them well understand.

4 As for the
General notifications to every mine under the jurisdiction of this division

i) notification to prevent fire cases by paying special attention throughout Winter time.
iii) during the work in ore bin
a) Workers must carry waist rope with them so that they can be

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDC NO. 77 5013

acted as follows:

a) To the management side
He advised to let minimum safety security members attend the mine in order to secure the mine safety by strict inspection.

b) To the labor union
He instructed the chairman and the vice chairman that the provisions of the Mine Safety Law included

i) prevension of the disasters against people
ii) protection of mineral resources
iii) good keeping of equipment
iv) prevension of the public damages caused by mining

and made them well understand.

4 As for the General notifications to every mine under the jurisdiction of this division

i) notification to prevent fire cases by paying special attention throughout Winter time.
iii) during the work in ore bin
a) Workers must carry waist rope with them so that they can be

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supported safe in case of accident.
b) Joint work must be carried under the close co-operation.
were emphasized towards the following 12 mines:

| | |
|---|---|
| Okayama-Pref. | Yanahara, Tatsuyama. |
| Yamaguchi-Pref. | Kawayama, Kitabira, |
| Shimane-Pref. | Sasagatani, Udo, Tanaka, Wanibuchi, |
| Tottori-Pref. | Sanin-matsushiro, Osaka matsushiro, Hirose, Wakamatsu, |

(2) What has been done during the month in promoting the cooperation of mine operators and laborers with goverment officials in carrying out the previsions of the Mine Safty Law?

a-(II)

1. The five items described in a-(I), article 1 the managing persons of the mines (Table(A)) have immediately been carrying in practice.
2. As for the safety education mentioned in a-(I), article 1 mine owners have been expected to give it to all workers and the result will be examined in the next inspection.
3. Three mines (Ikeda, Hojo, Karafuchi,) having received notifications mentioned in a-(I), article 2 had well understood what they had to do when inspecting officials visited and therefore, we can expect that they will carry the notifications into practice.
4. To the advice and instruction our division chief made in the stride of the Yanahara-mine
   a) The management side had promptly taken up measures pertinent to secure the mine safety.
   b) The union side had understood what the Mine Safty Law provides and had the minimum safety ~~execurity~~ members'

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1. The five items described in A-(I), article 1 the managing persons of the mines (Table(A)) have immediately been carrying in practice.
2. As for the safety education mentioned in A-(I), article 1 mine owners have been expected to give it to all workers and the result will be examined in the next inspection.
3. Three mines (Iheda, Hojo, Karafuchi,) having received notifications mentioned in A-(I), article 2 had well understood what they had to do when inspecting officials visited and therefore, we can expect that they will carry the notifications into practice.
4. To the advice and instruction our division chief made in the strike of the Yanahara-mine
   a) The management side had promptly taken up measures pertinent to secure the mine safety.
   b) The union side had understood what the Mine Safety Law provides and had the minimum safety ~~execurity~~ members' attend mine to cooperate the safety securing.

5. Other items submitted

| | | |
|---|---|---|
| i | the selection application for the mine safety staff | 44 cases. |
| ii | applications for the special admission | 20 " |
| iii | applications for the exception | 30 " |
| iv | mine safety map | 22 " |
| v | change of the mine safety committee | 2 " |
| vi | applications for the permission according to the Mine Safety Regulation, article 52. | 9 cases |

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(3) How many accident to workman occurred during the month in the mining industry in each prefecture?

(i) No. of the acting mine is 107 in all

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 61 | 1 | 14 | 11 | 2 | 89 |

(ii) Metal mine (75)

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 60 | 0 | 14 | 7 | 2 | 83 |

(iii) Nonmetal mine (22)

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 0 | 0 | 0 | 4 | | 4 |

(iv) Lignite mine (10)

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 1 | 1 | 0 | 0 | | 2 |

(4) How many of those accidents occurred within the mines and how many happenened on the surface?

(i) No. of the acting mine is 107 in all

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(iii) Nonmetal mine (22)

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 0 | 0 | 0 | 4 | | 4 |

(iv) Lignite mine (10)

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | total |
|---|---|---|---|---|---|---|
| No. of Accident | 1 | 1 | 0 | 0 | | 2 |

(4) How many of those accidents occurred within the mines and how many happenened on the surface?

(i) No. of the acting mine is 107 in all

| | Underground | Surface | total |
|---|---|---|---|
| No. of Accident | 65 | 24 | 89 |

(ii) metal mine (75)

| | Underground | Surface | total |
|---|---|---|---|
| No. of Accident | 59 | 24 | 83 |

(iii) Nonmetal mine

| | Underground | Surface | total |
|---|---|---|---|
| No of Accident | 4 | 0 | 4 |

(iv) Lignite mine

| | Underground | Surface | total |
|---|---|---|---|
| No of Accident | 2 | 0 | 2 |

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(5) If accidents did occur. What kind of accident were they and how many workmen were injured in each case?

(i) No. of the acting mine is 107 in all.

| Classification | Cause | No. of Casualties |
|---|---|---|
| Under-ground | Falles of roof or sides | 3 |
| | Gas poisoning or suffocating | 2 |
| | Runaway or derailment of mine cars | 1 |
| | Mine cars (excent preceding items) | 9 |
| | Machinery | 2 |
| | Flying or bounding stones | 21 |
| | Tools | 6 |
| | Fall | 1 |
| | Upset | 4 |
| | Careless footing | 5 |
| | Others | 11 |
| | Total | 66 |
| Sur-face | Blasting or explosion of exposives | 1 |
| | Mine cars | 3 |
| | Aerial cableway | 1 |
| | Machinery | 1 |
| | Tools | 3 |
| | Upset | 2 |
| | Careless footing | 1 |
| | Others | 12 |
| | Total | 24 |
| Grand Total | | 90 |

(ii) Metal mines (75), Non-metal mines (22), Lignite mines (10)

| Classfication | Cause | Metal mine | Non-metal mine | Lignite mine |
|---|---|---|---|---|
| Under-ground | Falles of roof or sides | 1 | 2 | |
| | Gas poisoning or suffocating | 2 | | |
| | Runaway or derailment of mine cars | 1 | | |

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| | | |
|---|---|---|
| | Aerial cableway | 1 |
| | Machinery | 1 |
| | Tools | 3 |
| | Upset | 2 |
| | Careless footing | 1 |
| | Others | 12 |
| | Total | 24 |
| Grand Total | | 90 |

(ii) Metal mines (75), Non-metal mines (22), Lignite mines (10)

| Classfication | Cause | Metal mine | Non-metal mine | Lignite mine |
|---|---|---|---|---|
| Under-ground | Falles of roof or sides | 1 | 2 | |
| | Gas poisoning or suffocating | 2 | | |
| | Runaway or derailment of mine cars | 1 | | |
| | Mine cars (excent preceding items) | 9 | | |
| | Machinery | 1 | 1 | |
| | Flying or bounding stones | 19 | | 2 |
| | Tools | 6 | | |
| | Fall | 1 | | |
| | Upset | 4 | 1 | |
| | Careless footing | 5 | | |
| | Others | 11 | | |
| | Total | 60 | 4 | 2 |
| Surface | Blasting or explosion of exposives | 1 | | |
| | Mine cars | 3 | | |
| | Aerial cableway | 1 | | |
| | Machinery | 1 | | |
| | Tools | 3 | | |
| | Upset | 2 | | |
| | Careless footing | 1 | | |
| | Others | 12 | | |
| | Total | 24 | 0 | 0 |
| Grand Total | | 84 | 4 | 2 |

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(b) How does this accident rate compare with the accident rate in your prefecture for the previous month?

I Comparison to previous month per prefecture.

| Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | Total |
|---|---|---|---|---|---|---|
| Rate | 0,80 | —— | 0,64 | 0,89 | 0,33 | 0,80 |

II Comparison to previous month of underground and surface accidents.

| Underground Surface | Underground | Surface | Total. |
|---|---|---|---|
| Rate | 0,69 | 0,92 | 0,80 |

III Comparison to previous month of number of the casualties from cause.

| | Cause | Rate |
|---|---|---|
| Fatal | Falles of roof or sides | 1,00 |
| | Combustion or explosion of gas or coal dust | —— |
| | Runaway or derailment of mine cars | 0,50 |
| | mine cars (excent preceding items) | 0,64 |
| | Machinery | 0,40 |
| | Flying or bounding stones | 0,62 |
| | Tools | 0,67 |

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| | Cause | Rate |
|---|---|---|
| Underground | Falls of roof or sides | 1.00 |
| | Combustion or explosion of gas or coal dust | —— |
| | Runaway or derailment of mine cars | 0,50 |
| | mine cars (exept preading items) | 0,64 |
| | Machinery | 0,40 |
| | Flying or bounding stones | 0,62 |
| | Tools | 0,67 |
| | Fall | —— |
| | Upset | 0,80 |
| | Careless footing | 2,50 |
| | others | 0,92 |
| | Total | 0,77 |
| Surface | Blasting or explosion of explosives | —— |
| | Mine Cars | 3,00 |
| | Aerial Cableway | 0,33 |
| | Machinery | 1,00 |
| | Tools | 0,50 |
| | Upset | 0,67 |
| | Careless Footing | —— |
| | Others | 1,50 |
| | Total | 1,00 |
| | Grand Total | 0,82 |

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(6) The rate from the class of ores.

I

| Name of Prefecture | Okayama | Hiroshima | Yamaguchi | Shimane | Tottori | Total |
|---|---|---|---|---|---|---|
| Metal mine | 0.82 | — | 0.64 | 3.50 | 0.33 | 0.80 |
| Non-metal mine | — | — | — | 0.67 | | 0.67 |
| Lignite mine | 1.00 | — | — | — | | 2.00 |

II

| | Metal mine | Non-metal mine | Lignite mine |
|---|---|---|---|
| Underground | 0.73 | 1.33 | 2.00 |
| Surface | 1.04 | — | — |

III

| Classificaton | Cause | Metal mine | Non-metal mine | Lignite mine |
|---|---|---|---|---|
| Under ground | Falles of roof or sides | 0.33 | | |
| | Gas poisoning or suffocating | — | | |
| | Runaway or derailment of mine cars | 0.50 | | |
| | Mine cars (excent preceding items) | 0.75 | | |
| | Machinery | 0.20 | | |
| | Flying or bounding stones | | | |

III

| Classificaton | Cause | Metal mine | Non-metal mine | Lignite mine |
|---|---|---|---|---|
| Under ground | Falles of roof or sides | 0.33 | | |
| | Gas poisoning or suffocating | — | | |
| | Runaway or derailment of mine cars | 0.50 | | |
| | Mine cars (excent preceding items) | 0.75 | | |
| | Machinery | 0.20 | | |
| | Flying or bounding stones | 0.58 | | 2.00 |
| | Tools | 0.67 | | |
| | Fall | — | | |
| | Upset | 0.80 | | |
| | Careless footing | 2.50 | | |
| | Others | 1.00 | | |
| | Total | 0.73 | 1.00 | 2.00 |
| Surface | Blasting or explosion of exposives | — | | |
| | Mine cars | 3.00 | | |
| | Aerial cableway | 0.33 | | |
| | Machinery | 1.00 | | |
| | Tools | 0.50 | | |
| | Upset | 0.67 | | |
| | Careless footing | — | | |
| | Others | 2.40 | | |
| | Total | 1.14 | — | — |
| Grand Total | | 0.82 | 0.67 | 2.00 |

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1

a-(1)

1. 監督計画による鉱務監督官の巡視監督した鉱山はA表の通りである。

縣別巡視監督鉱山(A表)

| 縣名 | 鉱山名 | 小計 | 合計 |
|---|---|---|---|
| 岡山 | 柵原, 堂生, 金山, 河内, 新備前, 児島, 玉島, 日比 | 金属 4<br>亜炭 3<br>製錬所 1 | 8 |
| 広島 | 神武, 三原, 田之浦, 瀬戸内, 大永, 大父金, 日加勝光, 高坂, 藝備, 三福 | 非金属 7<br>亜炭 3 | 10 |
| 山口 | 坂根, 足谷, 大成, 厚保, 三陽, 殿居, 彦島 | 金属 6<br>製錬所 1 | 7 |
| 島根 | 江津, 嘉久志, 大麻, 井野, 黒沢, 池田, 御崎, 唐渕, 清見, 日立島上, 出雲, 中国, 君谷 | 金属 10<br>亜炭 3 | 13 |
| 鳥取 | 岩美, 小鴨, 鬼志, 関金, 方三和見 | 金属 5 | 5 |
| 合計 | | | 43 |

巡視鉱山経営者に対して係官のとった処置については

i. 記録の保存状況が不備であったので指導注意す。

ii. 危険業務に就業する労働者への保安教育を充分行うこと

iii. 保安技術職員の選任及選考申請書の未提出鉱山に対して勧告す。

iv. 保安図を作成提出すること(金属規則60條)

v. 建設物及工作物の諸届出を急速にすること(金属規則63條)

vi 坑外の消火設備を充実すること(金属規則98~99條)

鉱山労働者に対する保安訓練に関しては次の各項に於ては鉱山労働者自らの注意によりて減少するものと認められるので鉱業权者を通じて訓練指導にあたらしめた

i. 坑内に於ける災害事故については

a 飛石

b 墜落, 転倒, 踏抜

c 鉱車

d 落ばん

ii 坑外に於ける災害事故については

| | | | |
|---|---|---|---|
| | 出雲 中国 君谷 | 亜炭 3 | |
| 鳥取 | 岩美 小鴨, 鬼志, 関金, 方三和白見 | 金属 5 | 5 |
| 合計 | | | 43 |

巡視鉱山経営者に対して係官のとった処置については
i, 記録の保存状況が不備であつたので指導注意す.
ii, 危険業務に就業する労働者への保安教育を充分行うこと
iii, 保安技術職員の選任及送考申請書の未提出鉱山に対して勧告す.
iv, 保安図を作成提出すること(金属規則60條)
v, 建設物及工作物の諸届出を急速にすること(金属規則63條)
vi 坑外の消火設備を充実すること(金属規則98~99條)
鉱山労働者に対する保安訓練に関しては次の各項に於ては鉱山労働者自らの任意により減少するものと認められるので鉱業権者を通じて訓練指導にあたらしめた
i, 坑内に於ける災害事故については
a 飛石
b 墜落 転倒 踏抜
c 鉱車
d 落ばん
ii 坑外に於ける災害事故については
a. 墜落 転倒 踏抜
b. 工具によるもの
c. 鉱車
2. 巡視の鉱山中次の三鉱山に対しては指示又は通達書によつて法及規則の徹底を図つた.
1. 池田鉱山(島根)
規則(金属)210及び213條による墜落防止, 通行しや断を実施すること
ii, 宝生鉱山(岡山)
規則(金属)212條 第3号の墜落防止設備の実施
iii, 唐渕鉱山(島根)
a. 保安係員の選考申請書提出について
b. 保安図の提出について
c 災害月報提出厳守について
d 規則(金属)116~125條の支柱, 岩ばん等の検査, 露天堀採場に関する各條項遵守について
e 規則(金属)213條 通行しや断について

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Ⅵ坑外の消火設備を充実すること（金属規則98～99條）
鉱山労働者に対する保安訓練に関しては次の各項に於ては鉱山労働者自らの注意により減少するものと認められるので鉱業权者を通じて訓練指導にあたらしめた
i,坑内に於ける災害事故については
a 飛石
b 墜落、転倒、踏抜
c 鉱車
d 落ばん
ii 坑外に於ける災害事故については
a.墜落 転倒 踏抜
b.工具によるもの
c.鉱車
2.巡視の鉱山中次の三鉱山に対しては指示又は通達書によって法及規則の徹底を図った.
i.池田鉱山(島根)
規則(金属)210及び213條による墜落防止,通行しや断を実施すること
ii.室生鉱山(岡山)
規則(金属)212條第3号の墜落防止設備の実施
iii.唐渕鉱山(島根)
a.保安係員の選考申請書提出について
b.保安図の提出について
c.災害月報提出厳守について
d.規則(金属)116～125條の支柱,岩ばん等の検査,露天堀採場に関する各條項遵守について
e.規則(金属)213條通行しや断について

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3. 柵原鉱山労働争議(12月6~7日)について当保安部のとった処置について.
12月5日柵原鉱山労働争議突入の報告によって橋爪保安部長,鉱山に急行して次の処置を講じた.
a. 鉱山経営者側に対しては,争議中の鉱山の保安確保のため坑内外の巡視を厳にし最少必要保安要員を出勤せしめる様勧告す.
b. 労働組合側に対しては,組合長副組合長と会見し,鉱山保安の意義について鉱山保安法及仝規則にもとずき
i. 人に対する危害の防止
ii. 鉱物資源の保護
iii. 施設の保全
iv. 鉱害の防止
であることを重ねて説明了解せしめた.
4. 管内各鉱山への一般通達事項
i. 各季災害の防止について特別の注意換起をうながすべく通達す
ii. 鉱舎内の作業については
a. 作業労働者の腰綱の着用に関すること.
b. 共同作業に関すること.
を次の12鉱山に通達した
岡山縣----柵原, 龍山, 各鉱山
山口縣----河山, 喜多平各鉱山
島根縣----笹谷 鵜峠 田中, 鰐渕, 山陰松代, 大阪松代各鉱山.
鳥取縣----広瀬 若松各鉱山.

a-(2)
1. (A表)巡視監督鉱山共通の処置事項については経営者に於ては実施にとりかかった.
2. 前項1.の鉱山労働者教育については鉱業权者に於て協力することとなつたが次回巡視の際に,指導状況を監督する.
[illegible]鉱山については巡視時に於て了承しているので各

ii. 鉱害の防止
であることを重ねて説明了解せしめた.
4. 管内各鉱山への一般通達事項
i. 各季災害の防止について特別の注意喚起をうながすべく通達す
ii. 鉱舎内の作業については
a. 作業労働者の腰綱の着用に関すること.
b. 共同作業に関すること.
を次の12鉱山に通達した
岡山県---- 柵原, 龍山, 各鉱山
山口県---- 河山, 喜多平各鉱山
島根県---- 笹ヶ谷 鵜峠 田中 鰐淵 山陰松代 大股松代各鉱山.
鳥取県---- 広瀬 若松各鉱山.

A-(2)
1. (A表) 巡視監督鉱山共通の処置事項については経営者に於ては実施にとりかかった.
2. 前項1. の鉱山労働者教育については鉱業权者に於て協力することとなったが次回巡視の際に, 指導状況を監督する.
3. 通達書による三鉱山については巡視時に於て了承しているので各條項については実施をするものと認められる.
4. 柵原鉱山争議についての勧告及指導について
a. 鉱山側に於ては 直ちに鉱山保安確保のための適接なる処置を講じた
b. 労働組合側に於ては鉱山保安の意義を了承し保安要員を出し, 鉱山保安確保に協力した
5. その他各鉱山からの諸届出提出件数
i. 保安技術職員の選考申請書件数. 54件
ii 特別許可申請書 20件
iii 適用除外申請書 30件
iv 保安図 22件
v 保安委員会内容変更届 2件
vi 規則第52條認可事項 9件

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# 昭和24年12月分（自11月16日 至12月15日）全鉱山災害集計表（稼行107鉱山）

## a-(3) 県別災害件数

| 県名 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 災害件数 | 61 | 1 | 14 | 11 | 2 | 89 |

## a-(4) 坑内・外別災害件数

| 坑内外別 | 坑内 | 坑外 | 計 |
|---|---|---|---|
| 災害件数 | 65 | 24 | 89 |

## a-(5) 事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑 | 落ばんまたは側壁の崩壊 | 3 |
| 坑 | ガス中毒または窒息 | 2 |
| 坑 | 鉱車の逸走または脱線 | 1 |
| 坑 | 運搬のため（前項以外） | 9 |
| 坑 | 機械のため | 2 |
| 坑 | 飛石または転石のため | 21 |
| 坑 | 工具のため | 6 |
| 坑 | 墜こう | 1 |

## a-(6) 前月に対する比率

### I. 県別災害件数の前月対比

| 県名 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | 0.80 | — | 0.64 | 0.89 | 0.33 | 0.80 |

### II 坑内・外別災害件数の前月対比

| 坑内外別 | 坑内 | 坑外 | 計 |
|---|---|---|---|
| 比率 | 0.69 | 0.92 | 0.80 |

### III 事由別死傷者数の前月対比

| 事由別 | | 比率 |
|---|---|---|
| 坑 | 落ばんまたは側壁の崩壊 | 1.00 |
| 坑 | ガス中毒または窒息 | — |
| 坑 | 鉱車の逸走または脱線 | 0.50 |
| 坑 | 鉱車のため（前項以外） | 0.64 |
| 坑 | 機械のため | 0.40 |
| 坑 | 飛石または転石のため | 0.84 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| 比率 | 0.80 | — | 0.64 | 0.89 | 0.33 | 0.80 |

a-(4) 坑内・外別災害件数

| 坑内・外別 | 坑内 | 坑外 | 計 |
|---|---|---|---|
| 災害件数 | 65 | 24 | 89 |

II 坑内・外別災害件数の前月対比

| 坑内・外別 | 坑内 | 坑外 | 計 |
|---|---|---|---|
| 比率 | 0.69 | 0.92 | 0.80 |

a-(5) 事由別死傷者数

| | 事由別 | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩壊 | 3 |
| | ガス中毒または窒息 | 2 |
| | 鉱車の逸走または脱線 | 1 |
| | 鉱車のため(前項以外) | 9 |
| | 機械のため | 2 |
| | 飛石または転石のため | 21 |
| | 工具のため | 6 |
| | 墜落 | 1 |
| | 転倒 | 4 |
| | 踏抜 | 5 |
| | その他 | 11 |
| | 計 | 66 |
| 坑外 | 発破または火薬類のため | 1 |
| | 鉱車のため | 3 |
| | 架空索道のため | 1 |
| | 機械のため | 1 |
| | 工具のため | 3 |
| | 転倒 | 2 |
| | 踏抜 | 1 |
| | その他 | 12 |
| | 計 | 24 |
| 総計 | | 90 |

III 事由別死傷者数の前月対比

| | 事由別 | 比率 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩壊 | 1.00 |
| | ガス中毒または窒息 | — |
| | 鉱車の逸走または脱線 | 0.50 |
| | 鉱車のため(前項以外) | 0.64 |
| | 機械のため | 0.40 |
| | 飛石または転石のため | 0.62 |
| | 工具のため | 0.67 |
| | 墜落 | — |
| | 転倒 | 0.80 |
| | 踏抜 | 2.50 |
| | その他 | 0.92 |
| | 計 | 0.77 |
| 坑外 | 発破または火薬類のため | — |
| | 鉱車のため | 3.00 |
| | 架空索道のため | 0.33 |
| | 機械のため | 1.00 |
| | 工具のため | 0.50 |
| | 転倒 | 0.67 |
| | 踏抜 | — |
| | その他 | 1.50 |
| | 計 | 1.00 |
| 総計 | | 0.82 |

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDC NO. 77 5013

# 昭和24年12月分 鉱種別(金属,非金属,亜炭)災害内訳表

## A. 金属鉱山の部(稼行75鉱山)

A-(3)鉱別災害件数

| 鉱別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 件数 | 60 | 0 | 14 | 7 | 2 | 83 |

A-(4)坑内・外別災害件数

坑内-59　坑外-24　計-83

A-(5)事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | 1 |
| | ガス中毒または窒息 | 2 |
| | 鉱車の逸走または脱線 | 1 |
| | 鉱車のため(前項以外) | 2 |
| | 機械のため | 1 |
| | 飛石 | 19 |
| | 工具のため | 6 |
| | 墜落 | 1 |
| | 転倒 | 4 |
| | 踏抜 | 5 |
| | その他 | 11 |
| | 計 | 60 |
| 坑外 | 発破または火薬類のため | 1 |
| | 鉱車のため | 3 |
| | 架空索道のため | 1 |
| | 機械のため | 1 |
| | 工具のため | 3 |
| | 転倒 | 2 |
| | 踏抜 | 1 |
| | その他 | 1 |

A-(6)前月に対する比率

I. 鉱別災害件数の前月対比

| 鉱別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | 0.82 | — | 0.44 | 3.50 | 0.33 | 0.80 |

II. 坑内・外別災害件数の前月対比

坑内-0.73　坑外-1.04　計-0.80

III. 事由別死傷者数の前月対比

| 事由別 | | 比率 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | 0.33 |
| | ガス中毒または窒息 | — |
| | 鉱車の逸走または脱線 | 0.50 |
| | 鉱車のため(前項以外) | 0.67 |
| | 機械のため | 0.20 |
| | 飛石 | 0.58 |
| | 工具のため | 0.67 |
| | 墜落 | — |
| | 転倒 | 0.80 |
| | 踏抜 | 2.50 |
| | その他 | 1.00 |
| | 計 | 0.73 |
| 坑外 | 発破または火薬類のため | — |
| | 鉱車のため | 3.00 |
| | 架空索道のため | 0.33 |
| | 機械のため | 1.00 |
| | 工具のため | 0.50 |
| | 転倒 | 2.00 |
| | 踏抜 | — |

| | | |
|---|---|---|
| 坑内 | ガス中毒または窒息 | 1 |
| | 鉱車の逸走または脱線 | 1 |
| | 鉱車のため（前項以外） | 9 |
| | 機械のため | 1 |
| | 飛石 | 19 |
| | 工具のため | 6 |
| | 墜落 | 1 |
| | 転倒 | 14 |
| | 踏抜 | 5 |
| | その他 | 11 |
| | 計 | 80 |
| 坑外 | 発破または火薬類のため | 1 |
| | 鉱車のため | 3 |
| | 架空索道のため | 1 |
| | 機械のため | 1 |
| | 工具のため | 3 |
| | 転倒 | 2 |
| | 踏抜 | 1 |
| | その他 | 12 |
| | 計 | 24 |
| 総計 | | 84 |

B,非金属鉱山の部(稼行22鉱山)

a-(3)県別災害件数

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 件数 | 0 | 0 | 0 | 4 | | 4 |

a-(4)坑内・外別災害件数

坑内－4　坑外－0　計－4

a-(5)事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | 2 |
| | 転倒 | 1 |
| | 機械のため | 1 |
| | 計 | 4 |
| 坑外 | | 0 |
| 総計 | | 4 |

C,亜炭鉱山の部(稼行10鉱山)

a-(3)県別災害件数

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 件数 | 1 | 1 | 0 | 0 | | 2 |

a-(4)坑内・外別災害件数

坑内－2　坑外－0　計－2

a-(5)事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 飛石または転石のため | 1 |

| | | |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | 0.33 |
| | ガス中毒または窒息 | — |
| | 鉱車の逸走または脱線 | 0.50 |
| | 鉱車のため（前項以外） | 0.75 |
| | 機械のため | 0.20 |
| | 飛石 | 0.58 |
| | 工具のため | 0.67 |
| | 墜落 | — |
| | 転倒 | 0.80 |
| | 踏抜 | 2.50 |
| | その他 | 1.00 |
| | 計 | 0.73 |
| 坑外 | 発破または火薬類のため | — |
| | 鉱車のため | 3.00 |
| | 架空索道のため | 0.33 |
| | 機械のため | 1.00 |
| | 工具のため | 0.50 |
| | 転倒 | 2.00 |
| | 踏抜 | — |
| | その他 | 2.00 |
| | 計 | 1.17 |
| 総計 | | 0.82 |

a-(6)前月に対する比率

I 県別災害件数の前月対比

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | — | — | — | 0.67 | | 0.67 |

II 坑内・外別災害件数の前月対比

坑内－1.33　坑外－－　計－0.67

III 事由別死傷者数の前月対比

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | — |
| | 転倒 | — |
| | 機械のため | — |
| | 計 | 1.00 |
| 坑外 | | — |
| 合計 | | 0.67 |

a-(6)前月に対する比率

I 県別災害件数の前月対比

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | 1.00 | — | — | — | | 2.00 |

II 坑内・外別災害件数の前月対比

坑内－2.00　坑外－－　計－2.00

III 事由別死傷者数の前月対比

| 事由別 | 比率 |
|---|---|

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 77 5013

| | | |
|---|---|---|
| | 踏抜 | 1 |
| | その他 | 1/3 |
| | 計 | 1/3 |
| 総計 | | 84 |

| | | |
|---|---|---|
| | 踏抜 | 二 |
| | その他 | 2.3 |
| | 計 | 1.1 |
| 総計 | | 0.82 |

B,非金属鉱山の部(稼行22鉱山)

A-(3)県別災害件数

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 件数 | 0 | 0 | 0 | 4 | | 4 |

A-(4)坑内・外別災害件数

坑内-4 坑外-0 計-4

A-(5)事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | 2 |
| | 転倒 | 1 |
| | 機械のため | 1 |
| | 計 | 4 |
| 坑外 | | 0 |
| 総計 | | 4 |

A-(6)前月に対する比率

I県別災害件数の前月対比

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | — | — | — | 0.67 | | 0.67 |

II坑内・外別災害件数の前月対比

坑内-1.33 坑外-— 計-0.67

III事由別死傷者数の前月対比

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 落ばんまたは側壁の崩かい | — |
| | 転倒 | 二 |
| | 機械のため | 二 |
| | 計 | 1.00 |
| 坑外 | | — |
| 合計 | | 0.67 |

C,亜炭鉱山の部(稼行10鉱山)

A-(3)県別災害件数

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 件数 | 1 | 1 | 0 | 0 | | 2 |

A-(4)坑内・外別災害件数

坑内-2 坑外-0 計-2

A-(5)事由別死傷者数

| 事由別 | | 死傷者数 |
|---|---|---|
| 坑内 | 飛石または転石のため | 2 |
| 坑外 | | 0 |
| 合計 | | 2 |

A-(6)前月に対する比率

I県別災害件数の前月対比

| 県別 | 岡山 | 広島 | 山口 | 島根 | 鳥取 | 計 |
|---|---|---|---|---|---|---|
| 比率 | 1.00 | — | — | — | | 2.00 |

II坑内・外別災害件数の前月対比

坑内-2.00 坑外-— 計-2.00

III事由別死傷者数の前月対比

| 事由別 | | 比率 |
|---|---|---|
| 坑内 | 飛石または転石のため | 2.00 |
| 坑外 | | — |
| 合計 | | 2.00 |

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77 5013

Nat. Res. Division
File No. M-36

# LIBE COAL MINE SAFETY & INSPECTION Div.

chief
Mr NARA

chief in management
(Mr Nakano

- GEN AFFAIRS - WATANABE (Rec.) - SAKAI (Rec.) KAMURA (EMPLOYEE)
- MANAGEMENT - NISHIMURA (Engineer) — MORITA (Engineer) - KITAMOTO (EMP)

chief inspector
(Mr Asada

- SUPERVISOR - (HIWADA) (inspector) - TANIZAKI (Inspector) - INOUE (Inspector)
- MACHINE - SUGIMOTO (inspector) - KAWAKAMI (inspector)
- ELECTRIC - IWAMOTO (Engineer) - AKIMOTO (Inspector)

inspector (OSAKA)
Mr FUKUJA

INSPECTOR (SHIKOKU)
Mr KONISHI

| | |
|---|---|
| Inspectors | 11 |
| Engineers | 3 |
| Secretaries | 2 |
| Employees | 2 |
| total | 18 |

File Index
No. 12

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

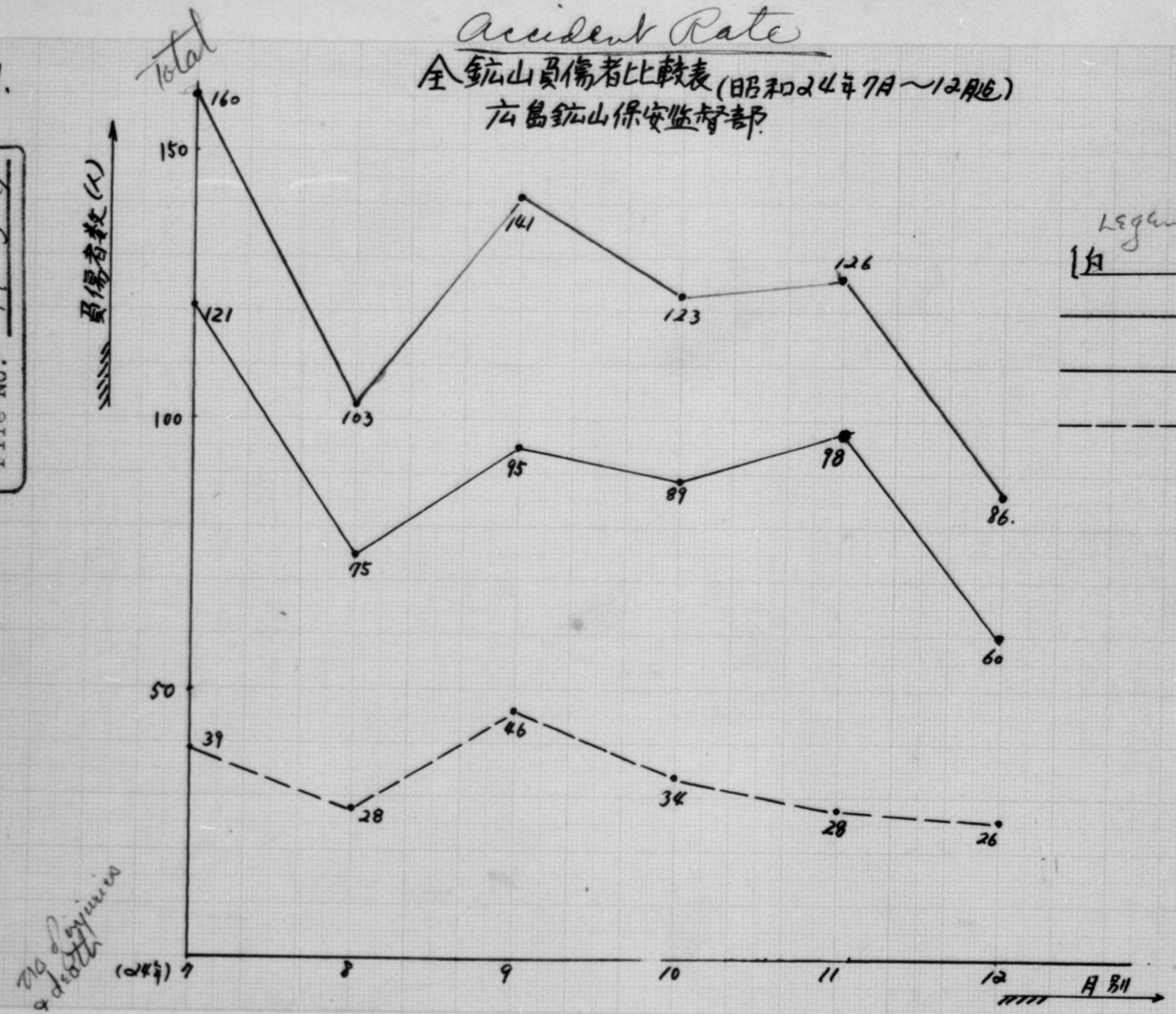
No 1.

Nat. Res. Division
File No. M-3-G

File Index
No. 7

# Accident Rate

## 全鉱山負傷者比較表 (昭和24年7月～12月迄)
## 広島鉱山保安監督部

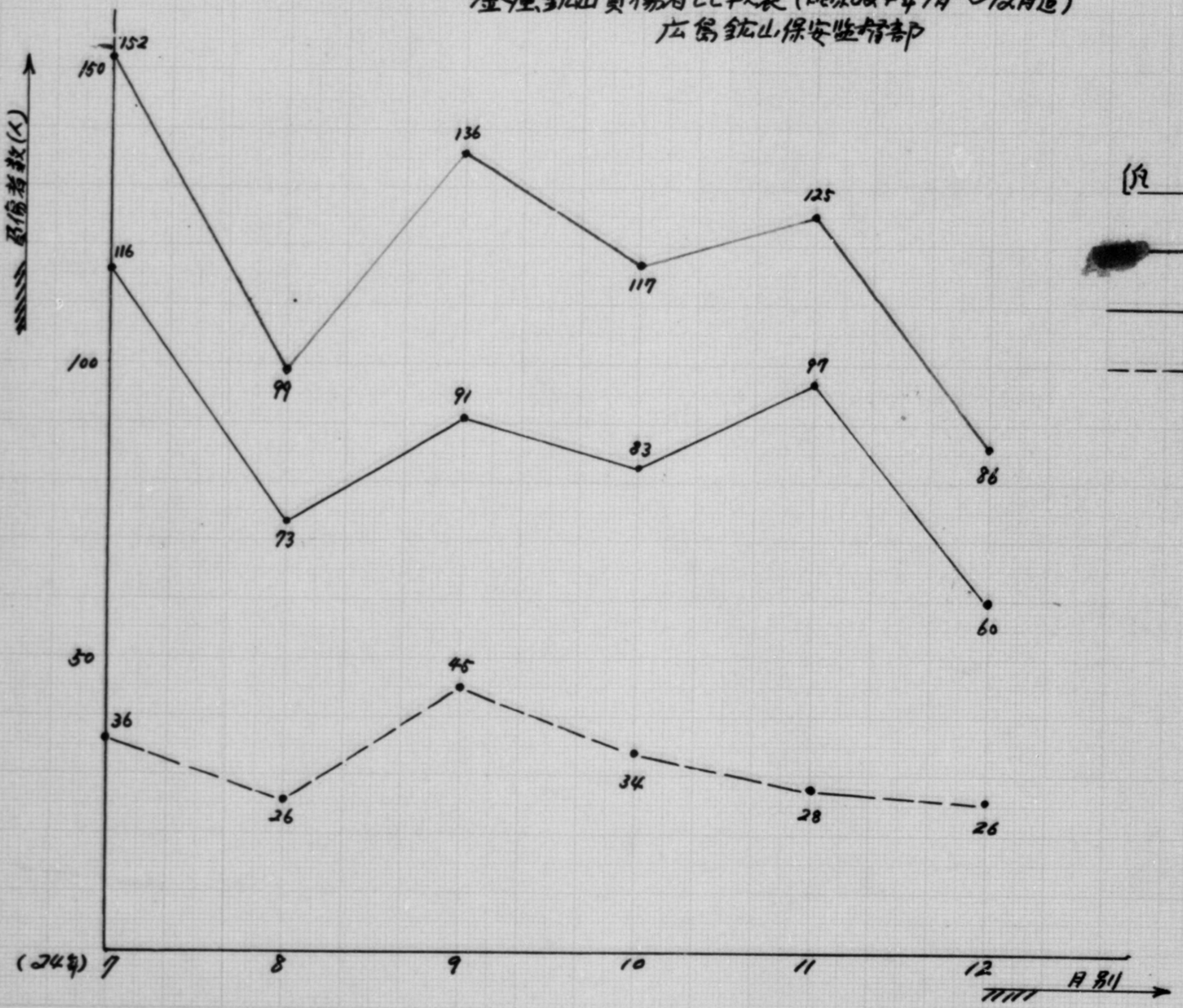


DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

No2.

Metallic + non-metallic except lignite + Coal

金屋鉱山負傷者比較表（昭和24年7月～12月迄）
広島鉱山保安監督部

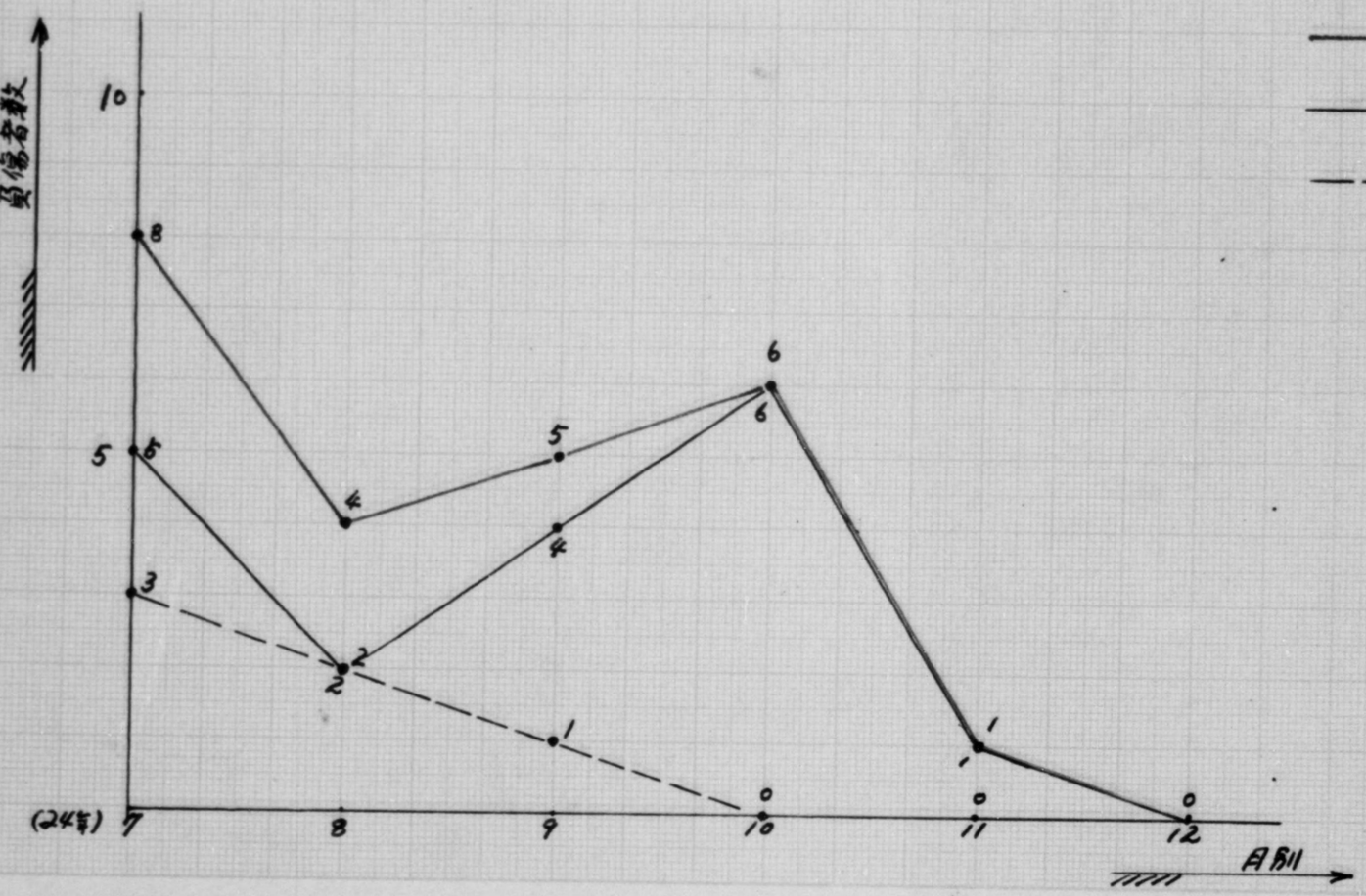


DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

No. 3.

Lignite

亜炭鉱山 負傷者ヒヒ率表 (昭和24年7月～12月迄)
広島鉱山保安監督部



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

file
M-3-G

COPY

23 January 1950

Jan 6, 1950 ("Chugoku Shimbun")

UNSAFE MINES WILL BE CLOSED

Frequent Accidents in Yamaguchi Fileds;

Mine Safety Bureau Warns.

Underground accidents in 70 Yamaguchi fields are as many as 1.200 cases monthly in an average, with mortality ranging 5.6 At beginning of the year, Mr. Hara, Chief of Ube Coal Mine Safety Bureau, gave the following important warning:

1. With a view to assuring adherence to revised mine safety codes, inspection will be intensified.

2. All cases of violation of safety rules will be referred to the public procurators.

3. Coal mines wherein very poor safety conditions prevail, will be closed.

4. In order to carry out the above mentioned measures adequately, this bureau will put all its efforts to expedite disposition of requests for exemption submitted in accordance with items 9, 10, and 16 of appendixes to Coal Mine Safety Regulations.

Article to the same effects were carried on Jan. 7's "Bocho Shimbun" The latter added.

"With a view to disseminating the knowledge, the bureau will hold a conference of mine representatives on Jan. 9. The bureau will, moreover, dispatch inspectors day in and day out to stamp out violations."

(Translated and submitted at the request of Coal Mine Safety Bureau; Liaison and Coordination Office.)

(6)

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
APO 500

AG 729.3 ( 22 Jul 48 )NR/MG
SCAPIN 1928

24 August 1948

MEMORANDUM FOR: JAPANESE GOVERNMENT

SUBJECT: Preparation and Implementation of Mine Safety Codes and Administration of Mine Safety Program

1. The Japanese Government is directed to prepare immediately and place in force adequate mine safety codes for the preservation of safety in mines. Inclosures 1 and 2 (Proposed Mine Safety Codes) are forwarded for use as guides by the Japanese Government in the preparation of Mine Safety Codes.

2. The Japanese Government will concurrently assign responsibility for the enforcement of the mine safety codes and the necessary surveillance thereof to a suitable government agency.

FOR THE SUPREME COMMANDER:

2 Incls
as indic in par 1
(for addressee only)

R. M. LEVY,
Colonel, AGD,
Adjutant General.

(4)



4 ND

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

/

File No. 350
M-3-G

HEADQUARTERS EIGHTH ARMY
United States Army
Office of the Commanding General
APO 343

OPERATIONAL DIRECTIVE)
)
NUMBER 10 )

9 March 1949

MINE SAFETY REGULATION

1. Reference.

a. Mine Safety Regulation for Coal and Lignite Mines, Mine Safety Division of the Ministry of Commerce and Industry. (Translated copies distributed to military government teams).

b. Operational Directive 26, this headquarters, 9 April 1948, subject: "Mine Rehabilitation".

2. Administration of mine safety became the exclusive responsibility of the Ministry of Commerce and Industry on 21 December 1948. The Safety Section of the Coal Board of the Ministry is responsible for the supervision of the program. The Ministry of Labor recommends the policy pertaining to the health and safety of miners.

3. Reference 1 a was prepared by the Coal Board, reviewed by coal mining engineers of General Headquarters, Supreme Commander for the Allied Powers, and found to be in accordance with technical principles contained in the guide furnished the Japanese Government. Copies of the regulation have been distributed to all mine inspectors, mine operators and labor unions, and will be followed in making mine inspections under the emergency safety program which commences immediately. Pending required legislation, adherence thereto will necessarily be of a voluntary nature.

Action M.G.

4. Commanders of military government teams will exercise surveillance to ensure that appropriate publicity is given to the foregoing, and that every effort is made to secure the cooperation of mine operators, government officials and labor in putting into practice the provisions of the regulation.

5. New safety codes for mines other than coal mines are being prepared.

BY COMMAND OF LIEUTENANT GENERAL WALKER:

E.M. LANDRUM
Colonel, GSC
Chief of Staff

OFFICIAL:
Schanze
SCHANZE
G-4

(MG-En)

ECONOMIC SECTION

(3)

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



DISTRIBUTION:

"X" Plus
CG, I Corps (3)
CG, IX Corps (3)
Each MG Region and Team (3)
MG Section, Hq Eighth Army (75)

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

NR file no 15

file M-3-G

# PROPOSED MINE SAFETY CODE FOR

# JAPANESE COAL MINES

(Revised)

NATURAL RESOURCES SECTION
GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS

(2)

1192

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

## DEFINITION OF TERMS

Active Workings: Place where coal is being mined.

Approved Equipment: Equipment tested and approved for underground use at the laboratories for the Prevention of Coal Mine Explosions at Nogata or Sapporo.

Approved Explosives: Explosives tested and approved for coal mine use at the above laboratories.

Assistant Mine Foreman: An assistant to the mine foreman, placed in charge of a section of a mine.

Class "A" Mines: Class "A" or gassy mine, is one designated by the administrative office in which methane has been ignited or has been found in the air current of any working place in the amount of 0.25 percent or more.

Class "B" Mines: Class "B" mine is one in which methane in the amount of 0.25 percent or more has not been found.

Fireboss or Mine Examiner: A person, under the direction of the mine foreman, who examines the mine for gas and other dangerous conditions before the entrance of the shift. Any foreman or assistant foreman may act as a fireboss.

General Manager: A person who, in the interest of an operator, has immediate supervision of several mines and surface works, or of a district.

Mine: In this ordinance the term "mine" shall include shafts, slopes, level openings from surface, strip-pit, or any operation which recovers coal.

Mine Foreman: A person whom the operator or superintendent places in charge of the underground workings of a mine and the persons employed therein.

Operator: Owner of mining right.

Safety Supervisor: An official whose sole duty is the supervision of safety in a mine.

Shaft: A vertical opening through the strata that is used for ventilation, haulage or drainage.

Shot-Firer: A person with knowledge of the hazards of explosives, who is in charge of charging and blasting of explosives in a mine, or section of a mine, under the supervision of the mine foreman.

Slope: An inclined opening or shaft.

Superintendent: A person who, in the interest of the operator, has supervision of one or more mines.

Workings: All underground excavations, either abandoned or active.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

## ARTICLE 1 - PURPOSE AND JURISDICTION

### Section A. Purpose

1. The purpose of this ordinance is to provide a means of insuring safety in coal mines.

### Section B. Jurisdiction

1. This ordinance prescribes safety measures and regulations for the coal mining industry.

## ARTICLE 2 - DEPARTMENT OF COAL MINE SAFETY AND INSPECTION

### Section A. Establishment of Department

1. The Chief of the appropriate bureau, board or similar organization, hereinafter known as the competent Bureau Chief, under the direction of the competent Minister, is charged with the enforcement of this ordinance and correction of any violations thereof. He shall establish under his jurisdiction a separate section to be known as the Department of Coal Mine Safety and Inspection for that purpose.

### Section B. Governing Board and Duties

1. The Department of Coal Mine Safety and Inspection shall be governed by a board of five (5) men appointed by the competent Bureau Chief, qualified by education and at least 10 years experience in the coal mining industry, and not less than 30 years of age, to conduct examinations and issue certificates for the positions of District Mine Inspector, Coal Mine Foreman, Assistant Coal Mine Foreman, Safety Supervisors, and Fire Bosses.

### Section C. Violations

1. It shall be a violation of this ordinance for any coal mine operator or company to employ other than certified persons for any position enumerated in the foregoing paragraph except as follows: When it is not possible to secure certified men for the positions mentioned in Section B above, the governing board may issue temporary employment permits for such positions for a period not to exceed ninety (90) days.

## ARTICLE 3 - GENERAL SUPERVISION

### Section A. Appointment and Qualifications of District Coal Mine Inspectors

1. The Department of Coal Mine Safety and Inspection shall appoint a sufficient number of District Coal Mine Inspectors to carry out the provisions of this ordinance. Such inspectors shall be graduates of a university or technical school and have specialized in the technical phases of coal mining. They must, in addition, have been employed in the underground phase of coal mining for a period of not less than four (4) years and should be at least 30 years of age, and have passed the examination given by the Department of Coal Mine Safety and Inspection.

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Section B. Duties of Coal Mine Inspectors

1. Coal mine inspectors of the Department of Coal Mine Safety and Inspection shall make inspections of mines in accordance with the provisions contained in this ordinance. They shall visit and make personal examinations of working places; examine the condition of the mine as to ventilation; and test for gas and liberation of gas, drainage, use and quantity of rock dust, and general safety conditions. They shall see that all provisions of the coal mine safety ordinances are strictly carried out. They shall also have authority to make recommendations for improving health and safety conditions or practices not covered by this ordinance.

2. In those instances where a coal mine inspector finds that an imminent danger exists, he shall take immediate action through the operating manager or his representative, to have all workmen withdrawn from the unsafe area until such danger is corrected.

3. The mine inspector shall deliver to the owner of the mining right of each mine inspected a certificate of inspection, and shall post a duplicate certificate at a prominent place at or near the mine, where it may be read by any of the mine employees.

Section C. Neglect of Duties by District Mine Inspectors

1. Upon petition signed by not less than 25 miners and/or a mine operator, and with the affidavit of one or more of the petitioners attached, in which it is claimed that any inspector of mines is neglectful or is incompetent to perform the duties of his office, the competent Bureau Chief shall immediately suspend this individual from office pending a formal review of the entire petition. Should the facts as stated in the petition prove to be true, upon investigation, said inspector shall be discharged and his certificate cancelled for a period of three years. The said certificate can be renewed only by a new examination in accordance with rules and regulations of the Mine Examining Board.

Section D. Appointment and Qualifications of Mine Foremen and Assistant Foremen

1. The superintendent or operator of a coal mine shall appoint a sufficient number of practical and experienced foremen and assistant foremen to insure the efficient and safe operation of the mine. These foremen must be qualified for their positions by having passed the examination prescribed for coal mine foremen by the Department of Coal Mine Safety and Inspection. They should be graduates of a technical high school and have had at least three years underground experience in coal mining. The educational requirements may be waived in the case of persons who pass the required examination and have had at least five years underground experience. The minimum age for foremen or assistant foremen shall be 24 years.

2. The certificate of a mine foreman or assistant mine foreman may be revoked upon the recommendation of the District Mine Inspector for failure



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to comply with the provisions set forth in this code. Such action is subject to an appeal on the part of the individual concerned to the competent Bureau Chief.

Section E. Appointment and Qualifications of Safety Supervisors

1. In any mine normally employing over 150 laborers and in all Class "A" mines, an official whose sole duty is supervision of safety will be appointed by the mine operator or his authorized representative.

2. The competent Bureau Chief may require the appointment of a safety supervisor in mines employing less than 150 laborers, should it be deemed desirable.

3. Provision will be made for the immediate appointment of a replacement, should the safety supervisor be unable to perform his assigned duties.

4. An assistant safety supervisor may be appointed by the mine operator, should it be deemed desirable. The competent Bureau Chief may require that an assistant safety supervisor be selected.

5. The safety supervisor and assistant safety supervisor must be persons of mature judgment over 24 years of age and possess, in addition, the following qualifications:

a. Graduate of a university or technical school and have specialized in the study of the technical phases of the coal industry. He must, in addition, have been employed in the operating phase of the coal mining industry for a period of at least two years, or possess equivalent qualifications.

b. A person having graduated from a technical high school and having specialized in the study of the technical phases of the mining industry, and further, who has been engaged in the operating phase of coal mining for at least four years, may also be considered to be qualified as a safety supervisor.

6. In mines employing less than 150 laborers, the superintendent or official holding a similar position may serve as safety supervisor unless ordered by the competent Bureau Chief to employ a safety supervisor, as set forth in Section E-2 of Article 3.

Section F. Safety Guards and Fire Bosses

1. In Class "A" mines, the mine operator shall appoint a safety guard or fire boss. The safety guard or fire boss shall supervise no more than 100 persons. The total number of safety guards or fire bosses required at any mine may be determined by the competent Bureau Chief.

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2. Safety guards and fire bosses must possess the qualifications of having satisfactorily passed the examination of the Department of Coal Mine Safety and Inspection, be at least 24 years of age, and must have had at least five years underground experience in coal mining.

Section G. Duties of Safety Supervisors, Safety Guards, Foremen, and Fire Bosses

1. The duties of safety supervisors, safety guards, foremen and fire bosses shall be:

a. To inspect every live working place, places adjacent to live workings, every roadway and travelway and all accessible falls in the mine, for explosive gas and other hazards. He shall also make certain that the air is traveling in its regular course in each split.

b. Leave his initial or mark with the date at each place examined.

c. Place a danger sign across the entrance to a place where dangerous conditions are found and where two percent gas is detected. The danger sign shall be removed only by a certified supervisor after the danger has been removed. No unauthorized person shall be permitted to cross a danger sign.

d. Upon the completion of his examination, he shall report to the proper official on the surface, or to the proper official at a designated underground station, any dangerous conditions found, before men are allowed to enter the mine.

e. Record of the examination shall be entered into a safety diary kept on the surface, which shall contain the results of examination, listing places found hazardous and other pertinent data.

2. All working places shall be visited and inspected for gas at least twice during the working shift by the safety guard, the mine manager or any of his assistants or supervisors.

3. The foreman in charge of a pit, or his assistant, shall read and countersign the above record book daily.

4. Class "B" mines shall be inspected carefully for methane at least once a week.

Section H. Safety Reports

1. The safety supervisor, assistant safety supervisors, safety guards, and fire bosses shall perform functions appropriate to their assigned position and shall make such reports as may be deemed desirable. A safety diary shall be maintained; entries to be made therein daily by the appropriate safety official. All reports made by the foregoing officials shall be open for inspection by interested persons at all times.

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## ARTICLE 4 - CLASSIFICATION OF COAL MINES

Section A. Coal Mine Classification

1. Coal mines shall be classified into the following two groups:

   a. Class "A" or gassy mine, is one designated by the administrative office in which methane has been ignited or has been found in the air current of any working place in the amount of 0.25 percent or more. All Class "A" or gassy mines shall operate in full compliance with this code and also comply with Ministry of Commerce and Industry Ordinance No. 68, September 21, 1940.

   b. Class "B" is a mine in which methane in the amount of 0.25 percent or more has not been found.

Section B. Change of Classification

1. When a Class "B" mine is found to contain combustible gas of 0.25 percent or more, a report should be made immediately to the administrative office and the mine operated as a Class "A" mine.

## ARTICLE 5 - VENTILATION AND MINE GASES

Section A. Main Fans

1. All main fans shall be installed on the surface in fireproof buildings, situated not less than 20 feet from the nearest side of the mine opening, and shall be equipped with fireproof air ducts and ample relief or explosion doors.

2. Main mine fans shall be installed to permit reversal of air flow, provided with a pressure recording gauge or water gauge, and unless the fan is attended constantly, provided with an automatic device to give alarm when the fan slows down or stops.

3. The fan shall be on a separate power circuit, independent of the mine circuit. (A stand-by fan, preferably operated by an internal combustion or steam engine should be provided at a gassy mine, when feasible, to serve if the main fan fails).

4. The main fan shall be operated continuously, except when the mine is shut down, with all men out of the mine. After the fan is started, the mine shall be examined for methane and other hazards before workmen are allowed to enter.

5. When the main fan of a Class "A" mine fails or is stopped five minutes or more, the workmen shall be withdrawn from the mine. After the fan has been started, the mine shall be examined thoroughly for methane and made safe, before workmen are allowed to enter. The same procedure shall be followed in a section of a gassy mine that is dependent on a local fan.

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6. When the main fan of a Class "B" mine fails, or is stopped 30 minutes, the workmen shall be withdrawn from the mine. Before workmen are allowed to re-enter the mine after the fan has been started, the mine shall be examined throughly and made safe for operation.

7. If the stoppage of the main fan of a Class "A" mine is more than momentary, electric power shall be cut off from the working sections, and if the stoppage is as long as five minutes, the electric power shall be cut off from the entire mine.

8. Main fans shall be so located that the return air from the mine cannot be drawn into intake openings.

Section B. Local Fans

1. The use of local fans shall be kept to a minimum and shall only be used where it is not possible or practical to ventilate a working place by regular methods of ventilation.

2. Where blower fans are used, they shall be powered by an approved driving unit, operated continuously, and placed in intake air, so as to prevent recirculation of air.

3. The volume of air passing through the fan should be 2½ times the capacity of the fan.

4. The fan tubing shall be maintained in good condition. The discharge end shall be kept within 20 feet of the face in entries and tunnels.

5. Places ventilated by local fans shall be examined for methane several times during a working shift.

Section C. Volume of Air and Coursing of Air

1. The main intake air currents shall be directed into the mine and, when necessary, divided into splits using air bridges or overcasts, where needed, so as to ventilate all parts of the mine effectively.

2. The volume of air at the intake road of a Class "A" mine shall be a minimum of five cubic meters or more for each person working inside the mine, and as much more as the administrative office may require. In Class "B" mines, the minimum shall be three cubic meters per person working underground.

3. The administrative office shall determine the number of men allowed to work on one split of air.

4. The quantity of air reaching the end of the working place before going into returned air shall be determined by the number of men working and the necessity to dilute and carry away any inflammable or harmful gases.

5. However, the air current at the working faces and the quantity mentioned in the preceding paragraph shall be of sufficient velocity and volume

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to dilute and carry away smoke from blasting and any inflammable or harmful gases.

6. The main intake and main return air currents in all mines shall be in separate shafts, slopes or tunnels.

7. Return air from one working section or abandoned working sections shall not be passed over an active working section.

8. Changes in ventilation that may affect the safety of the men shall be made only when the mine is idle and no workers are in the mine, except those engaged in changing the ventilation.

Section D. Quality of Air

1. Air in which men work or travel in mines shall be improved, when it contains less than 19.5 percent of oxygen, more than 0.5 percent carbon dioxide, or is contaminated with noxious or poisonous gases.

2. If the air immediately returning from a split that ventilates any group of active workings contain more than 1.0 percent methane, as determined by an approved methane detector or by chemical analysis, the ventilation shall be improved.

3. If the air returning from a split contains 1.5 percent methane, the employees shall be withdrawn from that portion of the mine and all electric power cut off that portion of the mine until the dangerous condition is corrected: Provided, however, that in those mines ventilated by exhaust fans where methane is liberated in large quantities and double or more of the minimum of air is provided, the methane content may exceed 1.5 percent but shall not exceed 2.0 percent: Provided, further, that only approved electric equipment is used and that air does not pass over trolley or other bare power wires, and that a certified official or safety guard is continually testing the gas during mining operations. This 1.5 percent of gas applies only to return air from active splits and does not apply to mines using bleeder entries, or entries primarily used for drawing gas from old workings to main return air, provided all safety precautions are observed.

Section E. Stoppings, Overcasts and Doors

1. Stopping walls or doors shall be built in the pit roads connecting intake shafts and damp shafts or main intake roads and main damp pit roads.

2. The stopping walls between main intake and return or damp airways shall be built of solid, substantial, incombustible material, such as concrete, concrete blocks, brick, stone or tile.

3. Where doors are used, there shall be two or more, built in substantial, incombustible frames with the doors made fireproof or fire resistant.

4. Doors built in haulage entries and those in main air pit roads shall be two or more, with the intervening distance sufficient to hold the trip of

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cars or trains ordinarily used. The doors shall be self-closing, or a watchmen shall be posted.

5. Doors shall be kept closed, except when men or equipment are passing through the doorways. Motor crews, haulage employees and other persons who open doors are held responsible for the closing of doors which they have opened.

6. Overcasts or air bridges shall be used, where necessary, and shall be constructed tightly of incombustible material and of sufficient strength to withstand possible falls from the roof, and of sufficient strength to withstand the forces of an explosion.

7. Crosscuts between parallel entries in coal seams, used for ventilation purposes, shall be less than 90 meters or at any shorter distance which may be required by the administrative office in the interest of health and safety.

Section F. Old Workings

1. Danger signs shall be posted at old or abandoned workings to warn unauthorized workmen against entering.

2. Abandoned or completed working sections, where large quantities of methane gas may accumulate, or danger of fine coal dust exists, or there is danger of spontaneous combustion, shall be sealed or well ventilated.

3. Where old workings are sealed, provision shall be made to install a pipe fitted with a cap or valve to permit the taking of samples of the atmosphere behind the seals, and also as a means of determining any existing hydrostatic pressure.

Section G. Examinations for Gas and Dangerous Conditions

1. In Class "A" mines all underground supervisors whose duties require them to inspect working places, shall carry, when underground, an approved safety lamp or an approved methane detector for the detection of methane.

2. Class "A" mines shall be inspected for combustible gas within three hours before the entrance of each shift. In Class "B" mines, such an examination need be made only once in 24 hours.

3. These examinations shall be made by safety guards, fire bosses, or any certified official designated by the mine management.

4. The duties of those making the above examination shall be:

   a. To inspect every live working place, places adjacent to live workings, every roadway and travelway and all accessible falls in the mine, for explosive gas and other hazards. He shall also make certain that the air is traveling in its regular course in each split.

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b. Leave his initial or mark with the date at each place examined.

c. Place a danger sign across the entrance to a place where dangerous conditions are found and where two percent gas is detected. The danger sign shall be removed only by a certified supervisor after the danger has been removed. No unauthorized person shall be permitted to cross a danger sign.

d. Upon the completion of his examination, he shall report to the proper official on the surface, or to the proper official at a designated underground station, any dangerous conditions found, before men are allowed to enter the mine.

e. Record of the examination shall be entered into a safety diary kept on the surface, which shall contain the results of examination, listing places found hazardous and other pertinent data.

5. All working places shall be visited and inspected for gas at least twice during the working shift by the safety guard, the mine manager or any of his assistants or supervisors.

6. The foreman in charge of a pit, or his assistant, shall read and countersign the above record book daily.

7. Class "B" mines shall be inspected carefully for methane at least once a week.

Section H. Air Readings

1. In a mine where 50 or more workers are employed:

a. The safety guard or other certified official designated by the mine management shall measure the total volumes of both main intake and main return air every day and the volume of both intake and return of each split every seven days.

b. A record of these measurements shall be made in the "ventilation book".

c. When anything unusual occurs to the air current, or when the ventilation system is changed, air measurements shall be taken.

## ARTICLE 6 - COAL AND ROCK DUST

Section A. Control of Coal Dust

1. Coal dust shall not be permitted to accumulate excessively on roadways and along conveyor lines.

2. Mine cars shall be maintained as dust-tight as possible.

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3. Coal should be loaded, so that it will not spill or fall off during transportation.

4. Where mining operations raise an excessive amount of dust in the air, water shall be used to allay the coal dust:

a. On the cutterbar or cutting chain of mining machines, or sprayed on the dust as it comes from the kerf.

b. At the unloading head of scrapers.

c. On the coal pile before loading.

d. Before and after blasting.

e. At underground dumps.

f. On loaded coal cars.

5. The cleaning plant or the loading or dumping places of coal shall not be located close to the mouth of intake pit road.

Section B. Rock Dusting

1. All bituminous coal mines (lignite mines excepted), except those mines or those locations in a mine which are too wet, shall be rock-dusted to within 40 feet of the face of entries or tunnels in a coal bed, and rock-dust shall be applied to the goaf areas close to the face of longwall faces. In room-and-pillar places, rock-dust shall be applied to within 40 feet of the face of rooms and entries. Tunnels driven in rock or through rock where coal dust does not accumulate need not be rock-dusted, except where they intersect coal seams. However, at places where roadways are turned off into the coal seams, rock-dust barriers shall be erected to isolate the section.

2. Tunnels or slopes where transportation is by conveyor or belts shall be rock-dusted unless the coal is kept wet by spraying.

3. Where rock-dust is applied, it shall be distributed upon the top, floor and sides of all open places and maintained in such quantity that the incombustible content of the mine dust will not be less than 65 percent.

4. When methane is present in any ventilating current, the 65 percent of incombustible matter shall be increased one percent for each 0.1 percent methane.

5. A safety guard inside the pit, or any certified supervisor designated by the mine management, shall visit working places where dry coal dust is created and inspect the condition of coal dust disposition and facilities for preventing dust entering the air, and shall enter the results of the inspection in a coal dust disposition book. Any unusual conditions shall be reported immediately to the official in charge of the mine.

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6. A safety guard or any other certified supervisor designated by the mine management shall sample the dust at least monthly, to determine whether additional rock-dust is required.

7. A record shall be made in the coal dust disposition book of the location of the places samples, the analysis of the tests, and the amount of rock-dust applied monthly as well as annually.

## ARTICLE 7 - TIMBERING

### Section A. Adequate Timber Requirements

1. A method of systematic face timbering suitable to the roof conditions and mining methods of each mine shall be adopted and a plan posted. These should be considered the minimum requirements; additional timbering should be provided where the roof is hazardous.

2. The management at each mine shall provide an adequate supply of timbers, props, prepared cap pieces and wedges at or close to the faces or other places with which to timber all working places in a safe manner.

3. Face workers and other employees exposed to roof hazards shall examine and test thoroughly the roof, ribs and face and make them safe before starting work.

4. Temporary safety posts or props should be set before mining operations begin.

5. In slopes, inclined shafts and in haulageways, legs supporting cross bars should be hitched or set in the rib. If this is not practical, substantial guard rails should be placed along or between the legs.

### Section B. Roof Testing

1. Exposed roof, ribs, faces, and overhanging brows at every active working face shall be tested at frequent intervals during the working shift.

2. Every underground worker shall be instructed in the proper method of testing roofs.

3. Mine foremen and other supervisory officials shall test exposed roof in working places visited and also the roof along haulageways and manways.

4. The roof should be examined carefully before safety posts or cross bars are removed.

5. When trimming or pulling down loose roof material, a suitable bar not less than 4 feet (1.2 meters) long shall be used. Picks or short-handled tools shall not be used for pulling down loose rock.

6. Mining machine operators shall examine the roof and sides before starting in a working place and during the process of cutting.

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Section C. Replacement of Timbers

1. Broken or rotten timbers shall be replaced as soon as possible.

2. Props or timber removed by cutting machine operators or knocked out by blasting shall be replaced as soon as possible.

3. Where timbers or props are recovered for reuse, they shall be recovered by mechanical means by men experienced in this work, and, if possible, under the supervision of an official.

## ARTICLE 8 - EXPLOSIVES AND BLASTING

Section A. Surface Storage

1. Separate surface magazines shall be provided for the storage of explosives and detonators. Surface explosives storage magazines shall be:

a. Constructed of incombustible material or covered with fire-resistant material and be reasonably bullet-proof.

b. Provided with suitable danger signs marked, "EXPLOSIVES - KEEP OFF!"

c. Provided with properly screened ventilators.

d. Provided with floors of wood or other nonsparking material.

e. Provided with proper doors of strong construction.

2. After the effective date of this code, and where practicable, the location of magazines shall not be less than 200 feet from any mine opening or building used or occupied by any person or persons.

3. Detonators shall be stored in a separate magazine of incombustible construction, or the magazine covered with fire-resistant material and located not more than 100 feet unbarricaded, or 50 feet, if barricaded from an explosive magazine.

4. Tools or other materials shall not be stored in an explosives magazine. This shall not prevent the storage of safety fuse in either an explosives or detonator magazine.

5. Smoking, carrying smoker's articles, or open flames shall be prohibited in or near any magazine, or while explosives and detonators are being handled.

6. Deteriorated or damaged explosives or detonators should be destroyed. They should be destroyed only by a person who is experienced in this work.

Section B. Underground Transportation

1. Individual containers used to carry explosives or detonators into

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mines shall be constructed substantially of non-conductive materials(such as wood, plastics or pressed fiber) or receptacles (such as rubberized or leather bags) and maintained in good condition.

2. Detonators and explosives shall be carried separately.

3. Explosives or detonators shall not be carried on the same trip with workmen.

4. When explosives and detonators are transported underground by a locomotive, rope or other mechanical means, they shall be in special cars or in special containers:

a. The bodies and covers of special cars shall be constructed of non-conductive material.

b. If explosives and detonators are transported in the same explosives car or in the same special container, they shall be separated by at least four-inch (10-cm) substantially fastened hardwood partition or the equivalent.

5. When practical, explosives should be delivered on the off-shift or between shifts, when delivered by special car.

Section C. Underground Storage

1. If underground operation boxes or magazines are used, these should be located (a) in a crosscut or a recess in the wall at least 25 feet (7.5 meters) from roadways and trolley or power lines, and in a comparatively dry and well rock-dusted place; (b) the detonators and explosives shall be kept separately; (c) the boxes or magazines shall be protected from falls of roof; (d) not more than a 48-hour supply of explosives shall be stored underground at one time; (e) if explosives and detonators are kept in the same box, they shall be separated by at least a 4-inch (10-cm) substantially fastened wood partition or the equivalent.

2. Explosives of individual miners stored near the working faces in individual containers shall be stored 15 feet (4.5 meters) from the rail or power line, except that if placed in a recess in the rib, the distance may be five feet (1.5 meters) and at least 100 feet (30 meters) from the face. Detonators shall be stored in a separate container at least 10 feet (3 meters) from explosives.

Section D. Blasting

1. In all mines, permissible or approved explosives shall be used for the blasting of coal, unless other permission is given by chief district inspector and approved by the Chief Inspector.

2. If the coal is undercut by cutting machines, the bore hole shall be six inches less than the depth of the cut.

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3. All portions of the bore hole should have a burden of at least 18 inches of solid coal.

4. Bore holes should be stemmed with incombustible material; coal dust or coal cuttings shall not be used.

5. Examinations for gas shall be made immediately before and after firing each shot. Shots should not be fired, if more than one percent gas is detected.

6. Only wooden tamping bars shall be used when charging holes.

7. Roof and faces of working places shall be tested before and after blasting.

8. Where electric detonators are used, the leg wires shall be kept shunted or twisted until ready to connect to the firing cable.

9. Open or unconfined shots shall not be fired in any mine.

10. Each primer should be made up at or near the face immediately before charging, in a place removed from tracks, trolley wires, power lines, trailing cables and conveyor pans.

11. Shots should be charged and fired by experienced shotfirers or other competent workmen experienced in the use of explosives.

12. Warning shall be given, before shots are fired, by shouting, "FIRE", three times. Workmen shall be removed from adjoining working places when there is danger of a shot blowing through.

Section E. Firing Cable

1. Where electric detonators are used, the blasting cable shall be:

   a. Well insulated, at least 100 feet long, and as much longer as necessary, to assure safety.

   b. Short-circuited at the battery end until ready to attach to the blasting unit.

   c. Staggered as to length or kept well separated when attached to detonator leg wires.

   d. Kept clear of power line and all other possible sources of active or stray currents.

Section F. Misfires

1. When misfires occur with electric detonators a waiting period of at least 15 minutes shall elapse before returning to the face. The blasting cable shall be disconnected from the battery end and short-circuited before electric connections are examined.

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2. When a misfire occurs with the use of cap and fuse, the face shall not be inspected for 12 hours and a danger sign placed nearby.

3. Explosives shall be removed by firing a separate charge at least two feet away from, and parallel to, the misfired hole, or by washing the stemming and charge from the bore hole with a stream of water from a rubber hose, or by washing the stemming from the hole and firing a new primer after the stemming has been washed out.

4. The handling of a misfired explosive shall be under the direct supervision of a mine official.

## ARTICLE 9 - TRANSPORTATION

### Section A. Hoisting

1. A qualified hoisting engineer shall be on duty continuously when men are underground. Slope, shaft, or inclined plane hoists shall be equipped with brakes capable of stopping and holding the fully unbalanced cage or skip, or trip of cars at any point in the shaft, slope, or on the incline.

2. Hoists used for handling men shall be equipped with overspeed, overwind and automatic stop controls.

3. Hoisting equipment shall be inspected daily, and a record made of such inspection.

4. Ropes, links, chains, and rope sockets shall be examined carefully at least every day by a competent person, and a record kept of such inspections.

5. An accurate and reliable indicator, showing the position of the cage in a shaft, or a trip in a slope, shall be placed so as to be in clear view of the hoisting engineer.

6. At the beginning of each shift and after the hoist has been idle, the hoisting engineer shall operate the cages up and down the shaft at least one round trip before hoisting or lowering men. Similar tests shall be followed in slope hoisting, except that an attendant may ride on the trip.

7. Hoisting ropes on all cages shall be adequate in size to handle the load with a proper factor of safety. A safety factor of six to eight is recommended.

8. Bridle chains that serve as a secondary safety connection between the rope and the cage shall be provided.

9. A rope should not be used for hoisting men:

   a. Which shows more than six broken wires in any single pitch length or lay of rope.

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b. When inspection indicates a dangerous amount of corrosion or distortion.

c. When wires in crown of strand are worn to less than 85 percent of their original diameter.

10. At least two independent methods of signaling, one of which is audible, shall be provided on all landings in shafts or slopes. A telephone may be considered a method of signaling.

11. The signal code of the mine shall be posted prominently in the hoist room in easy sight of the hoisting engineer and at all places where signals are given.

Section B. Cages and Shafts

1. Cages used for hoisting men shall be of substantial construction, kept in good repair and provided with:

a. Adequate steel bonnets

b. Sides of cage fully enclosed

c. Gates, safety chains, or bars across the ends of the cage, when men are being transported

d. Sufficient hand holds or chains for all men on the cage to maintain their balance.

2. The number of men allowed on a cage shall be determined by the government mine inspector and company officials.

3. Cages shall be inspected daily. A test of safety catches on cages shall be made at least every two months. A written record shall be kept of inspections and tests.

4. Tools or other equipment shall not be carried in the cage with men; this does not apply to equipment and material requiring an attendant.

5. An attendant or cager shall be on duty at all cage stations, when men are being hoisted or lowered at the beginning and end of each shift.

6. Shafts shall be equipped with self-closing or manually controlled safety gates at the surface and at any intermediate landings.

7. At the bottom of each hoisting shaft and at intermediate landings, a "run-around" shall be provided for safe passage from one side of the shaft to the other.

8. While engaged in repair work in or above shafts, all workmen shall wear safety belts. In major shaft repair work where a platform is required,

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it is recommended that a second or safety platform be placed not more than 10 feet below the working platform.

9. Power wires and cables installed in shafts shall be properly insulated and protected.

Section C. Haulage Roads

1. The road bed, rail, joints, switches, frogs and other elements of the track of all haulage roads shall be constructed, installed and maintained in a manner consistent with speed and type of haulage operations conducted, to insure safe operation.

2. Haulage roads shall be kept free of coal spillage and debris, and kept well drained.

Section D. Clearance and Shelter Holes

1. Where practicable, there shall be a continuous clearance from the mine portal to all working places, of at least 30 inches from the nearest obstruction to the farthest projection of moving equipment, such as locomotives, cars and conveyors of all types.

2. On haulage roads where electric-trolley haulage is used, the clearance shall be on the side opposite the trolley wire.

3. After the effective date of this code, all new side tracks, shall have a clearance of 24 inches betw on the farthermost projection of equipment on any two tracks.

4. The clearance space on all haulage roads shall be kept free of loose rock, coal, supplies or other materials.

5. Sufficient clearance shall be provided at all points where supplies are loaded or unloaded along haulage roads of conveyors.

6. Where it is necessary for men to cross conveyors and the width of the conveyors or low roof introduces a hazard, suitable cross-over bridges shall be provided.

7. A shelter hole at least 10 feet (3 meters) deep and 6 feet high shall be provided at the bottom landing of a slope where cars are handled.

Section E. Haulage Equipment

1. Non-permissible or approved internal-combustion engines or other machinery which gives off noxious fumes shall not be permitted underground in any coal mine.

2. Electric locomotives shall be equipped with suitable rerailers, jacks, chains, and other tools for rerailing cars and locomotives. It is hazardous to use short pieces of rails, ties or props for rerailing cars.

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3. Trolley locomotives shall be provided with an insulated seat and insulated deck or car floormat.

4. An audible device and headlights shall be provided on each locomotive.

Section F. Safety Devices and Practices

1. Stop blocks or derails shall be used at the top of slopes or inclines, and derails should be used near the bottom of these slopes or inclines.

2. An approved trip light shall be used on the rear of trips pulled from, or on the front of trips lowered into slopes.

3. Cars on main haulage shall not be pushed, except where necessary to push cars from side tracks, etc.

4. No person other than the motorman and trip rider shall ride on a locomotive, unless authorized by the mine foreman, and no one shall ride on or between loaded cars of any trip except the trip rider.

5. Motorman and brakeman shall not get on or off cars, trips, or locomotives in motion.

6. Cars on trips shall not be coupled or uncoupled while in motion unless a coupling hook or similar device is used.

7. Cars or trips must not be coupled or uncoupled by hand from the inside of curves.

8. Material being hauled inside the mine shall be loaded and protected so there is no danger to the motorman or brakeman.

9. Backpoling shall be prohibited, except at places where the trolley pole cannot be reversed, or when going up steep grades, and then only at very slow speed.

10. Cars and trips shall not be left standing where they may obstruct the ventilating current.

Section G. Man Trips and Transportation of Men

1. Man trips or man cars on mechanical or gravity slopes shall be provided with safety rope or chains connected to the main rope at a point above the regular hitching and extending around or through all cars, and with a mechanical device that would stop the trip in case of failure of the rope.

2. An official or other person shall be in charge and accompany each man trip.

3. Man trips shall be operated at safe speeds consistent with condition of track and equipment.

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4. No material or tools shall be transported in the same car with workmen; a separate car shall be provided. Explosives or detonators shall not be carried in a trip carrying workmen.

5. Workers shall not get on or off a man trip until it comes to a full stop.

6. When riding in a car or man trip on a trolley haulage road, men shall ride on the side opposite the trolley wire unless covered man trips are used.

7. Cars are not to be over-crowded on man trips.

8. A waiting station shall be provided, where men are required to wait for man trips or man cages.

Section H. Conveyors

1. Loading points shall be well lighted and have sufficient clearance, have dust-proof motors and switches, have water sprays, where necessary, and kept free of loose coal and dust.

2. Conveyor lines shall be properly aligned, kept free of dust accumulations and suitably grounded.

3. Face conveyors shall have approved motors, properly grounded and independently controlled; switches and switch boxes shall be dust-proof.

4. Sacks of rock dust shall be stored along conveyor lines for use in case of fire or an emergency.

## ARTICLE 10 - ELECTRICITY

Section A. Surface Transmission Lines

1. Overhead high-potential power lines should be placed at least 15 feet above the ground and 20 feet above roadways and should be supported and guarded adequately to prevent contact with other circuits.

2. Overhead power circuits shall be protected against lightning and voltage surges, and high-potential power lines shall be protected adequately by circuit breakers, fuses or both.

Section B. Transformer Stations

1. Unless surface transformers are located 2.5 meters or more above the ground, they shall be enclosed in a transformer house or surrounded by a suitable fence at least six feet high. If the fence is of metal, it shall be grounded effectively.

2. Surface transformers containing inflammable oil and installed where they present a fire hazard, as near mine openings, or in or near combustible