

Statistics Committee Report

Although employment in the mining industry was reduced 28 per cent over the previous year, companies reporting to the National Safety Council represented 34,000,000 man-hours during 1931. Accident frequency at these plants was reduced over 6 per cent and accident severity 8 per cent during the year. Figures of larger scope, now available for certain branches of mining since the early returns were furnished to the Council, show that anthracite mines reduced their accident frequency 2 per cent in 1931 over the previous years, bituminous coal mines lowered their frequency rate 12 per cent, metal mines 20 per cent, non-metallic mineral mines 10 per cent, and mills and smelters 27 per cent.

The number of accidents and the number of man-hours worked have greatly declined in recent years at both metal mines and coal mines. Some of this decline was doubtless the result of poor markets, but much of it represents increased efficiency due to improved operating methods. Metal mines have succeeded in reducing accidents at a more rapid pace than the decline in man-hours, and the result has been a gratifying reduction in accident frequency per million man-hours of exposure. Coal mining, on the other hand, while also marked by fewer accidents, at least fatal accidents, and fewer man-hours of exposure, has not reduced accidents quite as fast as man-hours, hence the accident frequency rate for coal mines over a term of years has shown a mild upward trend. Nevertheless, the rate last year seems to have gone down, and there are indications that the rate for 1932 is also declining; which may indicate that the tide has turned and that the coal industry, as well as the metal industry, will reduce its accidents to an extent equal to or greater than it lowers the number of man-hours required to mine a given quantity of coal.

The report of the Poster Committee, presented by J. J. Forbes, U. S. Bureau of Mines, Pittsburgh, Pennsylvania, chairman, showed that during the year over 350 safety posters had been issued by the National Safety Council suitable for use by members of the Mining Section.

Report of the Secretary

The report of the Secretary, D. Harrington, U. S. Bureau of Mines, Washington, D. C., revealed that "1931 has established a record of low rates of accident occurrence in both coal and metal mining." Approximately 1430 persons were killed in coal mines in the United States in 1931 against an average of 2409 annually for the previous 25 years. The 1931 fatality rate of about 3.27 persons killed per million tons of coal mined is the lowest rate achieved in any year of the present century; and for the first eight months of 1932, the rate was lower than for the similar period of 1931. Explosions caused only 86 fatalities as compared with 264 in 1930, and as compared with an average of 341 annually from 1922 to 1930 inclusive. From January 28, 1931, to November 3, 1931, or over nine months, the bituminous mines of the United States did not have a major explosion disaster (one in which five or more lives were lost). While numerous factors contributed to this long period of avoidance of major explosions, at least three major disasters unquestionably were prevented by rock dusting.

In 1931 Alaska, Michigan and Texas had no fatalities in coal mines and every other coal producing state except Indiana, Montana, North Dakota and Maryland had fewer coal mine fatalities in 1931 than in 1930. Alabama, New Mexico, Ohio, Oklahoma, Utah and Washington all reduced coal mine fatalities 50 per cent or more in 1931 as compared with 1930 and usually the dominant factor in this reduction was the avoidance of mine explosions.

For the first eight months of 1932 the fatality rate is but 3.126 deaths per million tons of coal mined, which is a definite improvement on the rate of 3.384 for the first eight months of 1931, or the 3.27 rate for the entire year 1931. The anthracite mining industry also is showing definite progress in safety in 1932, with but 148 deaths for

the first eight months, as against 265 in the first eight months of 1931; the 1932 rate in anthracite mining up to September 1, 1932, being 4.829 and that of the first eight months of 1931 having been 6.657.

During the past year many remarkable safety performances in mining have been achieved. In metal mining the Miami Copper Company worked more than 30 months or more than 30,173,000 man hours and produced nearly 13,300,000 tons of ore from underground workings without a fatal accident. The Utah Copper Company operated its open cut mine for a three-year period without a fatality and moved more than 75,000,000 tons of rock and ore, the man-hours of exposure being almost 11,000,000.

Coal mining companies, too, recently have achieved safety records almost unbelievably good: at least five fairly large producing coal mines have been able to operate a year or more without a single lost-time accident, these being the Delhue mine, The Youngstown Mines Corporation, Delhue, West Virginia; the Brier Hill mine, The Buckeye Coal Company, Brier Hill, Pennsylvania; The No. 1 mine, Phelps Dodge Corporation, Dawson, New Mexico; the Alloy mine, Electro Metallurgical Company, Alloy, West Virginia; and the Imboden mine, Stonega Coke & Coal Company, Imboden, Virginia.

The cement industry continues its excellent safety performances and now at least eight cement plants have joined the thousand-day club, having not had a lost-time accident in 1000 or more days. The Iola, Kansas, plant of the Lehigh Portland Cement Company has worked for six years without a lost time accident and in that period had nearly 2,300,000 man-hours of exposure and handled practically 1,350,000 tons of cement rock; and the Sandis Eddy quarry of the Lehigh Portland Cement Company, with an average of 33 employees, has not had a lost-time accident from February 17, 1926, to at least September 1st, 1932, the exposure being practically 666,000 man-hours during which over 2,300,000 tons of rock were produced. Another remarkable safety performance is that of the underground mine of the Alpha Portland Cement Company, Ironton, Ohio, which has not had a lost-time accident since September 21st, 1926—over six years. During the period its employees have worked 999 days with a total of 569,848 man-hours of exposure.

Fifty-four new chapters of the Holmes Safety Association were established last year, bringing the total number of actively functioning chapters now to over 150, with a membership about 50,000. Dozens of instances are at hand in which actual figures have been furnished indicating that after Holmes Chapters have been installed and kept in active working order, accident occurrence has been reduced materially.

Chairman Comins, at this point, introduced George Opp, Safety Engineer, The Detroit Edison Company, Detroit, who made an inspirational address, stressing the finer points, or what might be termed the altruistic phases, of accident prevention work. Mr. Opp spoke extemporaneously, and no record is extant.

Some Data on Lighting in Underground Mines

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Lighting is of paramount importance in reducing accidents and in increasing safety underground. Light, by definition, is an essential condition of vision; it is that form of energy that produces vision. Light and life, both having "l" as the first letter, are, perhaps, significant of the necessity of light in order that man may live. In opposition to this thought, two words starting with the letter "d," darkness

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