



**CANADA CENTRE FOR MINERAL AND ENERGY TECHNOLOGY
(Former Mines Branch)**

**LIST OF CERTIFIED ELECTRICAL APPARATUS,
CERTIFIED FIRE-RESISTANT CONVEYOR
BELTING AND CERTIFIED DIESEL ENGINES
FOR COAL MINE USE (FOURTH EDITION)**

G.K. Brown
CANADIAN EXPLOSIVE ATMOSPHERES LABORATORY

NOVEMBER 1975

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ENERGY RESEARCH PROGRAM

ENERGY RESEARCH LABORATORIES
REPORT ERP/ERL 75/130 (LS)

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Information Canada
Ottawa, 1975

LIST OF CERTIFIED ELECTRICAL APPARATUS, CERTIFIED
FIRE-RESISTANT CONVEYOR BELTING AND CERTIFIED
DIESEL ENGINES FOR COAL MINE USE
(Fourth Edition)

G.K. Brown

ABSTRACT

The information presented in this circular is a complete list of the electrical apparatus certified by the Department of Energy, Mines and Resources as being suitable for use in coal mines. Also listed are conveyor belting certified fire-resistant by the Department and diesel engines and machines certified for use underground in coal mines. The period covered is from the opening of the certification service in September 1955 until October 31, 1975. This report is the fourth of a series of lists of certified apparatus which will be issued from time to time. The scope and background of the certification service are covered briefly in the introduction and references are given for those interested in obtaining more detailed information.

* Certification Officer, Department of Energy, Mines and Resources;
Head, Canadian Explosive Atmospheres Laboratory,
Energy Research Laboratories, Canada Centre for Mineral and Energy
Technology

LISTE DES APPAREILS ELECTRIQUES CERTIFIES,
DES COURROIES TRANSPORTEUSES IGNIFUGES CERTIFIEES ET
DES MOTEURS DIESEL CERTIFIES POUR UTILISATION DANS LES HOUILLERES
(Quatrième Edition)

G.K. Brown*

RESUME

Les renseignements contenus dans la présente circulaire prennent la forme d'une liste complète des appareils électriques que le ministère de l'Energie, des Mines et des Ressources a approuvés pour utilisation dans les houillères. Aussi il s'y trouve une liste des courroies transporteuses que le Ministère a déclaré ignifuges, et des moteurs diésel et machines certifiés pour usage dans les houillères souterraines. La période visée s'étend depuis la mise sur pied du service, en septembre 1955, jusqu'au 31 Octobre, 1975. La présente circulaire est la quatrième d'une nomenclature d'appareils certifiés à être publiée de temps à autre. Le champ d'action et les antécédents du service de certification sont brièvement passés en revue dans l' introduction, et l'auteur mentionne des ouvrages de référence à l'intention de ceux qui pourraient désirer de plus amples détails.

* Agent de certification, Ministère de l'Energie, des Mines et des Ressources;
Chef, Laboratoire Canadien des Atmosphères Explosives, Laboratoire de
Recherches sur l'Energie, Centre Canadien de Technologie des minéraux et
de l'ènergie

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INTRODUCTION

In the summer of 1955 the Department of Mines and Technical Surveys (now the Department of Energy, Mines and Resources) announced the start of a certification service with respect to electrical apparatus for use in coal mines and the opening of a laboratory equipped to test such apparatus in explosive atmospheres. In establishing these services the Department was fulfilling the wishes expressed, at conferences of provincial Ministers of Mines, for central certification facilities in Canada. In addition to certifying* electrical apparatus for coal mines, the Department is conducting research which it is hoped will provide useful contributions to the existing information about explosive atmospheres and the means by which electrical or other apparatus can be safely used in such hazardous locations.

This research and the certification testing are at present carried out in the Canadian Explosive Atmospheres Laboratory, the Head of which is also the Certification Officer.

Contacts have been established and maintained with recognized certification establishments at home and abroad. Since 1956 the Certification Officer has been chairman of the committee on "Electrical Apparatus for Use in Explosive Gas Atmospheres" of the Canadian National Committee of the International Electrotechnical Commission and since 1968 he has been International chairman of the committee on flameproof enclosures of the IEC.

The certification laboratory has co-operated with the Canadian Standards Association in the latter's investigations of electrical apparatus for hazardous locations other than mines by testing representative samples in explosive atmospheres to C.S.A. specifications. Other organizations have been assisted by the laboratory in developing apparatus for use in hazardous areas such as the oil fields in western Canada. During the last few years considerable research has been carried out related to problems associated with the toxicity of diesel exhaust.

* See Appendix for interpretation of terms.

Three booklets -- designated Certification Memorandum No. 1, Certification Memorandum No. 2 and Certification Memorandum No. 3 -- have also been published to supply detailed information on how to make application for: (No. 1), certification of electrical apparatus for coal mines; (No. 2), certification of fire-resistant conveyor belting; (No. 3), certification of diesel apparatus for underground use in mines. The interpretations of terms such as "certification", "flameproof" and "fire-resistant" are also contained in the memoranda; however, these interpretations have been reprinted in the Appendix of this circular. The above publications are available upon request.

The certification memoranda mentioned have stated that lists of certified apparatus will be published from time to time, and the following pages constitute the fourth of these lists -- complete to October 31, 1975.

CERTIFICATION LISTING

ASSEMBLIES, ELECTRICAL

(Mining Machines, Compressors, Conveyor Controls, Ventilation Fans)

1.

Holder of Certificate: Canadian Ingersoll Rand Co., Limited,
800 Birks Bldg.,
Phillips Square,
Montreal 2, Quebec.

1.1 Apparatus: 3 CML 100 "Borecut" Continuous Mining
and Loading Machine

Electrical Supply: 550 Volts, 3 Phase, 60 Cycles

Certificate No.: 10A

Date Certified: December 12, 1958

2.

Holder of Certificates: Dominion Steel and Coal Corp.,
Trenton Industries Division,
Trenton, Nova Scotia.

2.1 Apparatus: "Dosco Miner" Continuous Mining
Machine and Associated "Safety Circuit
Centers"

Electrical Supply: 550 Volts, 3 Phase, 60 Cycles

Certificate Nos.: 7 A and 18 S

Date Certified: August 6, 1959

Date of
Supplementary
Certificate: October 25, 1960

ASSEMBLIES, ELECTRICAL continued

- 3.
- Holder of Certificates: The Crow's Nest Pass Coal Co., Ltd.,
Fernie, British Columbia.
- 3.1 Apparatus: "Borecut" II Coal Mining Machine
(1 only)
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 19 A
- Date Certified: February 9, 1961
- 3.2 Apparatus: Modified 3 CML "Borecut" Continuous
Mining and Loading Machine
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 29 A
- Date Certified: August 31, 1962
- 4.
- Holder of Certificates: Joy Manufacturing Co. (Canada) Ltd.,
P.O. Box 100, Galt, Ontario
- 4.1 Apparatus: Joy Class WL-80C Model 100 "UNITAIR"
Air Compressors (four)
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 62 A
- Date Certified: June 24, 1965
- 4.2 Apparatus: Electrical Components for a 36-Inch-Wide,
850-Ft-Long Belt Conveyor
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 63A
- Date Certified: June 24, 1965

ASSEMBLIES, ELECTRICAL (continued)

- 4.3 Apparatus: Electrical Components for Controller CD 2889
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 67 A, 115 S, 189 S, 190 S and 266 S
- Date Certified: October 26, 1965
- Extension Dates: April 5, 1968, April 19, 1971, April 21, 1971 and Dec. 19, 1974
- 4.4 Apparatus: Electrical Components for Controllers CD 2977 and CE 2988 used with a Joy Limberope Conveyor
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 68 A, 116 S and 186 S
- Date Certified: December 9, 1965
- Extension Dates: April 25, 1968 and April 5, 1971
- 4.5 Apparatus: Electrical Assembly, Comprised of Controller CD 3030 and Associated Electrical Components, for a Boom Car Loader
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 76 A and 187 S
- Date Certified: May 26, 1966
- Extension Date: April 5, 1971

ASSEMBLIES, ELECTRICAL continued

- 4.6 Apparatus: Electrical Assembly, Comprised of
Controllers CD 3271 and CD 3342 and
Associated Electrical Components,
for a Conveyor System
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 82 A, 109 S, 162 S and 185 S
- Date Certified: January 27, 1967
- Extension Dates: January 25, 1968, March 31, 1970,
April 2, 1971
- 4.7 Apparatus: Electrical Assembly, Comprised of
Controllers CD 3270 and CD 3342 and
Associated Electrical Components for
a Conveyor System, also Controllers
CD 3269 and CD 3342 and Associated
Electrical Components for a Conveyor
System.
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 83 A, 110 S, 114 S and 184 S
- Date Certified: January 27, 1967
- Extension Dates: June 28, 1967, January 25, 1968,
March 28, 1968 and April 2, 1971
- 4.8 Apparatus: Joy Class WL-80C Model 100 "UNITAIR"
Air Compressor
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 78 A, 169 S, 171 S, 174 S
- Date Certified: April 12, 1967
- Extension Dates: November 7, 1967, January 24, 1968,
May 1, 1970, May 21, 1970 and
July 13, 1970

ASSEMBLIES, ELECTRICAL continued

- 4.9 Apparatus: Electrical Assembly for Bridge Conveyor,
CD 3413
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 89 A, 120 S and 127 S
- Date Certified: May 15, 1967
- Extension Dates: May 10, 1968 and July 16, 1968
- 4.10 Apparatus: Electrical Assembly for Bridge
Conveyor, Controller CD 3556
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 90 A and 195 S
- Date Certified: September 29, 1967
- Extension Date: May 21, 1971
- 4.11 Apparatus: Electrical Assembly Comprised of
Controllers CD 3765 and CD 3770
and Associated Electrical
Components for Conveyor Control
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos: 98 A, 120 S, 127 S and 196 S
- Date Certified: October 12, 1967
- Extension Dates: May 10, 1968, July 16, 1968 and May 25, 1971
- 4.12 Apparatus: Electrical Assembly Comprised of
Controllers CD 3893 and CD 3342
and Associated Electrical Components
for Conveyor Control
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate Nos.: 118A and 203 S
- Date Certified: April 29, 1968
- Extension Date: July 19, 1971

ASSEMBLIES, ELECTRICAL continued

- 4.13 Apparatus: Electrical Assembly Comprising
a Transformer 11 KVA, 1100 Volts
Primary, 550 Volts Secondary and
a 10 HP Motor
- Electrical Supply: 1100 Volts, 3 Phase, 60 Cycles
Certificate No.: 155 A
Date Certified: November 3, 1969
- 4.14 Apparatus: Electrical Assembly of Components
for Bridge Controller 546797
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 198 A
Date Certified: May 26, 1971
- 4.15 Apparatus: Electrical Assembly of Components for
Conveyor Control
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 210A
Date Certified: January 31, 1972
- 4.16 Apparatus: Chain Conveyor Drive Unit, 30 HP
Electrical Supply: 575 Volts, 3 Phase, 60 Cycles
Certificate No: 265A
Date Certified: Dec. 19, 1974

ASSEMBLIES, ELECTRICAL continued

5.

Holder of Certificate Demag Aktiengesellschaft, Duisburg,
Germany. Canadian Agent:
Demag Industrial Equipment, Ltd.,
P.O. Box 1240, 2400 Highway 122,
Clarkson, Ontario.

5.1 Apparatus: Demag Face Heading Machine "UNICORN"
Serial Number VS 1/E - 13
Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 92 A
Date Certified: April 10, 1968

6.

Holder of Certificates: Oesterreichisch-Alpine Montangesell-
schaft, Austria.
Alpine Equipment Corporation,
P.O. Box 1001,
State College, Pa. 16801. U.S.A.

6.1 Apparatus: Alpine Miner Model F6-A
Electrical Supply: 550 Volts, 3 Phase, 60 Cycles or
alternatively wound for 440 Volts, 3 Phase,
60 Cycles
Certificate Nos.: 228 A and 241 S
Date Certified: November 24, 1972
Extension Date: June 27, 1973

Holder of Certificates: Controls for Automation Inc.,
Lock Haven, Pa., U.S.A.

6.1.1 Apparatus: Two Flameproof Controller Enclosures and
Contents for use with Alpine Miner
Model F6-A

Certificate Nos.: 228 A-C and 241 S
Date Certified: November 24, 1972
Extension Date: June 27, 1973

ASSEMBLIES, ELECTRICAL continued

7.

Holder of Certificate: Radmark Engineering Division of Rader
Pneumatics, Ltd.
Suite 102 - 245 Fell Ave.,
North Vancouver, B.C.

7.1 Apparatus: Radmark Backfill System
Electrical Supply: 575 Volts, 3 Phase, 60 Cycles
Certificate No.: 254 A
Date Certified: November 14, 1973

8.

Holder of Certificate: Coalition Mining Co. Limited,
Suite 1103,
1177 West Hastings,
Vancouver, B.C.

8.1 Apparatus: Modified 10 Ton Hydro Cars Type HE-10-50
Serial Nos. 29 L and 17 R,
produced by Noyes Bros. Pty, Limited
of Australia

Electrical Supply: 460 Volts, 3 Phase, 60 Cycles
Certificate No.: 249 A
Date Certified: Oct 29, 1973
Extension Date: June 19, 1974

ASSEMBLIES, ELECTRICAL continued

9.

Holder of Certificates: Joy Manufacturing Company (Canada) Ltd.,
118 Midland St.,
Winnipeg 21, Manitoba

9.1 Apparatus: Size 29 $\frac{1}{4}$ " x 17 $\frac{1}{2}$ " Axivane Series 1000,
Skid Mounted Mine Fan Assembly with
30 H.P. Motor

Electrical Supply: 575 Volts, 3 Phase, 60 Cycles

Certificate No.: 259 A

Date Certified: April 11, 1974

9.2 Apparatus: Size 42 $\frac{1}{4}$ " x 26 $\frac{1}{2}$ " Axivane Series 1000,
Skid Mounted Mine Fan Assembly, with
75 H.P., 1775 RPM Motor

Electrical Supply: 575 Volts, 3 Phase, 60 Cycles

Certificate Nos.: 260 A and 271 S

Date Certified: May 23, 1974

Extension Date: April 22, 1975

9.3 Apparatus: Size 29 $\frac{1}{4}$ " x 17 $\frac{1}{2}$ " Axivane Series 1000, Skid
Mounted Mine Fan Assembly, both 10 H.P.
Motor

Electrical Supply: 575 Volts, 3 Phase, 60 Cycles

Certificate No.: 268A

Date Certified: March 10, 1975

ASSEMBLIES, ELECTRICAL continued

10.

Holder of Certificate: Sheldons Engineering, Limited,
 Galt-Cambridge, Ontario
 N1R 5X8

10.1 Apparatus: Stage Fan complete with Size 1312 W 30"
 Vaneaxial Fan and 10 H.P., 1770 RPM Motor

Electrical Supply: 575 Volts, 3 Phase, 60 Cycles

Certificate No.: 261 A

Date Certified: May 3, 1974

BATTERIES AND DRY CELLS

1.

Holder of Certificate: National Carbon Co., Division of
Union Carbide Canada Limited,
805 Davenport Road,
Toronto 4, Ontario

1.1 Apparatus: "Eveready" W-594 Battery (24 Volts),
for use only with intrinsically safe
signalling circuits requiring a
certified source of direct current

Certificate No.: I.S. 2

Date Certified: June 27, 1956

2.

Holder of Certificate: Cipel (Canada) Limited,
P.O. Box 173,
Valleyfield, Quebec.

2.1 Apparatus: Cipel Type 524 CL Primary Dry Cell
(1 1/2 Volts) for use in banks of
16 (not more) with intrinsically safe
signalling circuits requiring a certified
source of direct current

Certificate No.: I.S. 1

Date Certified: June 8, 1956

DIESEL APPARATUS

1.

Holder of Certificate: Orenda Industrial Ltd.,
17 Haas Road,
Rexdale, Ontario

1.1 Apparatus: Style LE4, 4 Cylinder, 100 B.H.P.
Diesel Engine, manufactured by the
National Gas and Oil Co., Limited,
Ashton-under-Lyne, England.

Certificate No.: 11 D

Date Certified: January 4, 1960

2.

Holder of Certificate: National Mine Service Co.,
Ashland Division,
P.O. Box 1447,
Ashland Kentucky 41101, U.S.A.

2.1 Apparatus: Type 60ED31 Torkar
with Caterpillar Engine Model
D333C-NA

Certificate No.: 158 DA Not valid for machines delivered
after June 1, 1973 without Supplementary
Certificate updating flameproofing

Date Certified: January 15, 1970

3.

Holder of Certificate: Hunslet Locomotives Canada, Ltd.
Haileybury, Ontario

3.1 Apparatus: Hunslet "Jeep Supervisor"
Serial No. 8305-C17-359595 and
Serial No. 8305-C17-357425

Certificate No.: 192 DA

Date Certified: May 14, 1971; and July 14, 1971

DIESEL APPARATUS continued

4.

Holder of Certificate: Noyes Bros. Pty. Limited,
Box 1587 G.P.O., Sydney,
New South Wales, 2001,
Australia

4.1 Apparatus: "RHINO" Underground Transportation
Vehicle Mark VII
Model 17 CA
with Caterpillar Engine Model D330C-NA

Certificate No.: 235 DA

Date Certified: March 2, 1973

5.

Holder of Certificates: Wagner Mining Equipment Inc.,
P.O. Box 20307,
Portland, Oregon, U.S.A.

5.1 Apparatus Wagner Diesel Scooptram
Type ST-5A(S) - Serial No. 197-73
with Caterpillar Engine Model 3306-N
Serial No. 66D 8950

Certificate Nos.: 240 DA and 250 S

Date Certified: May 7, 1973

Extension Date: Oct. 1, 1974

6.

Holder of Certificate EIMCO Tunneling and Mining Machinery
Division of Envirotech Corporation,
537 West Sixth South,
Salt Lake City,
Utah, 84110, U.S.A.

6.1 Apparatus: Model 915 E LHD Diesel Machine
with Caterpillar Engine Model 3306-NA

Certificate No.: 267 DA (Provisional, See Note Page 16)

Date Certified: Feb. 12, 1975 (Valid to Feb. 12, 1976)

DIESEL FLAME TRAP

1.

Holder of Certificate: J. Kyle Gardiner Engineering, Ltd.,
885 Eyremount Drive,
West Vancouver, B.C. V75 2B2

1.1 Apparatus Plate Type Exhaust Flame Trap

Certificate No.: 276 DFT

Date Certified: June 20, 1975

Note: Certification is being reviewed and
design improvements investigated at time
of this publication to assess use of
multiple combinations

FIRE-RESISTANT CONVEYOR BELTING

1.

Holder of Certificates: Uniroyal (1966) Ltd.,
formerly:
Dominion Rubber Co., Limited,
P.O. Box 130,
Place d'Armes,
Montreal, Quebec.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
1.1	2776-32 oz	FR 1	Dec. 19, 1957
1.2	2276-EN	FR 1	Dec. 19, 1957
1.3	2776-EN	8 S	June 24, 1959
1.4	2776 (anti- static)	8 S	June 24, 1959
1.5	3606	13 FR	May 9, 1960
1.6	2908-XN (6 ply)	14 FR	May 9, 1960
1.7	2908-XN (4 ply)	16 FR	Sept. 14, 1960
1.8	2352-SN (4 ply)	17 FR	Sept. 14, 1960
1.9	2276-EN (4 ply) 1/8" top cover	22 FR	June 29, 1961
1.10	2908-XN (4 ply) variation	23 FR	Dec. 4, 1962
1.11	2908-XN (4 ply) variation	51 S	March 3, 1964
1.12	4800-ZN (4 ply)	31 FR	Dec. 4, 1962

FIRE-RESISTANT CONVEYOR BELTING continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
1.13	4800-ZN (4 ply) variation	32 FR	Dec. 4, 1962
1.14	4800-ZN (4 ply) variation	52 S	March 3, 1964
1.15	Nyply (3 ply)	66 FR	Oct. 5, 1965
1.16	Nyply 210 (3 ply) (anti- static)	72 FR	April 5, 1966
1.17	4800-ZN (4 ply) variation	77 S	Sept. 21, 1966
1.18	2776 (4 ply) (anti-static); also variations in Belting covered by Certificates 23 FR, 31 FR, 32 FR, 51 S, 52 S, 66 FR, 72 FR and 77 S	86 FR	April 12, 1967
1.19	Nyply 280 (4 ply)	124 FR	June 19, 1968
1.20	Uniroyal Mineflex 200	132 FR	Aug. 30, 1968
1.21	Uniroyal Mineflex 400, Mineflex 350 and Mineflex 300	133 FR	Aug. 30, 1968
1.22	Variation of Mineflex 400, 350 and 300	141 S	Dec. 13, 1968
1.23	Uniroyal Mineflex 200 Variation	152 S	July 31, 1969
1.24	Uniroyal Fire-Resistant Matchless, Anti-Static	160 FR	March 6, 1970

FIRE-RESISTANT CONVEYOR BELTING continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
1.25	Uniroyal Mineflex 200 Variation	170 S	May 13, 1970
1.26	Uniroyal Mineflex 400 Variation	172 S	June 16, 1970
1.27	Uniroyal Mineflex 300 Variation	177 S	Sept. 24, 1970
1.28	Uniroyal Mineflex 220 static conducting	182 FR	Dec. 2, 1970
1.29	Uniroyal Fire-Resistant	200 FR	May 26, 1971
1.30	A range of Mineflex	213 FR	March 22, 1972
1.31	A range of Mineflex II-400	242 FR	July 11, 1973
1.32	A range of Matchless Nyply 210	243 FR	July 11, 1973
1.33	A range of Matchless Nyply 210, 280, 315, 420, 525,630	244 FR	July 11, 1973

FIRE-RESISTANT CONVEYOR BELTING continued

2.

Holder of Certificates: The Goodyear Tire and Rubber Co. of
Canada Limited,
3050 Lakeshore Blvd., West,
Toronto 14, Ontario.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
2.1	42 HDNF (4 ply)	26 FR	Jan. 12, 1962
2.2	42 HDNF (4 ply) variation	49 S	Feb. 11, 1964
2.3	60 HDNF (4 ply)	27 FR	Jan. 12, 1962
2.4	60 HDNF (4 ply)	50 S	Feb. 11, 1964
2.5	Goodyear Fire-Resistant Steel Cable Conveyor Belting SC 12060 Type 5025	183 FR	Feb. 17, 1971
2.6	Goodyear Fire-Resistant Steel Cable Conveyor Belting SC 6700, Type 5028	191 FR	Apr. 22, 1971
2.7	Goodyear "Flame Resistant Skirtboard"	208 FR	Nov 15, 1971
2.8	Goodyear Fire-Resistant Pylon 420	217 FR	Apr. 28, 1972
2.9	Goodyear Fire-Resistant Pylon 315	218 FR	Apr. 28, 1972
2.10	A range of Pylon 420	219 S	June 2, 1972
2.11	Goodyear Fire-Resistant Pylon 525	237 FR	March 27, 1973
2.12	A range of Goodyear Fire-Resistant Pylon 525	245 FR	Aug. 7, 1973

FIRE-RESISTANT CONVEYOR BELTING continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
2.13	A range of Goodyear Fire-Resistant Plylon 315	246 FR	Aug. 7, 1973
2.14	A range of Goodyear Fire-Resistant Plylon 630	252 FR	Sept. 7, 1973
2.15	A range of Goodyear Fire-Resistant Steel Cable	253 FR	Sept. 28, 1973

FIRE-RESISTANT CONVEYOR BELTING continued

3.

Holder of Certificate: Mintex Federal Limited,
189 Rexdale Blvd.,
Rexdale, Ontario.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
3.1	Scandura "Thin Line" "Gold Line" "Heavy Duty Gold Line"	28 FR	Jan. 30, 1962

4.

Holder of Certificates: BTR Industries,
Herga House,
Vincent Square,
London S.W. 1, England.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
4.1	Pluvicor	37 FR	May 16, 1963
4.2	Pluvicor variation	48 S	Jan 17, 1964
4.3	Pluvicor variation	57 S	May 15, 1964
4.4	Pluvicor variation	64 S	July 26, 1965
4.5	Pluvicor variation	70 S	Feb. 28, 1966
4.6	Pluvicor variation	102 S	Nov. 7, 1967
4.7	Pluvicor variation	111 S	Feb. 7, 1968
4.8	Pluvicor variation	150 S	July 11, 1969
4.9	BTR Silvercord- Steelcord	201 FR	July 15, 1971
4.10	BTR Flame Resistant (5 ply)	229 FR	Dec. 7, 1972

FIRE-RESISTANT CONVEYOR BELTING. continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
4.11	BTR Flame Resistant (4 ply)	230 FR	Dec. 7, 1972
4.12	BTR Flame Resistant (4 ply)	248 FR	Aug. 13, 1973
4.13	BTR Silvercord- Steel cord	277 S	Sept. 30, 1975

FIRE-RESISTANT CONVEYOR BELTING continued

5.

Holder of Certificates: Dunlop Canada Limited,
870 Queen St., East,
Toronto, Ontario

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
5.1	(60 Oz.) Dunlop Fire-Resistant (4 ply)	69 FR	Feb. 8, 1966
5.2	(42 Oz.) Dunlop Fire-Resistant (4 ply)	71 FR	Apr. 5, 1966
5.3	(60 Oz.) Dunlop Fire-Resistant (4 ply)	79 FR	Oct. 25, 1966
5.4	(80 Oz.) Dunlop Fire-Resistant (4 Ply)	80 FR	Nov. 7, 1966
5.5	(80 Oz.) Dunlop Fire-Resistant NN-80 P.V.C. (5 ply)	104 FR	Dec. 18, 1967
5.6	(60 Oz.) Dunlop Fire-Resistant (4 ply) variation	112 S	Mar. 13, 1968
5.7	(60 Oz.) Dunlop Fire-Resistant (4 ply) variation	119 FR	May 6, 1968
5.8	Dunlop Dunstar Fire-Resistant (5 ply)	121 FR	June 12, 1968
5.9	(80 Oz.) Dunlop Fire-Resistant NN-80 P.V.C. (6 ply)	123 S	June 17, 1968
5.10	Dunlop Dunstar Fire-Resistant (4 ply)	125 FR	June 24, 1968
5.11	Dunlop Fire-Resistant NN-120 P.V.C. (5 ply)	135 FR	Aug. 28, 1968

FIRE-RESISTANT CONVEYOR BELTING continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
5.12	Dunlop Fire-Resistant NN 70 P.V.C. (4 ply)	136 FR	Sept. 23, 1968
5.13	Dunlop Fire-Resistant NN-90 PVC (4 ply)	159 FR	Feb. 4, 1970
5.14	Dunlop Dunstar Fire-Resistant (4 ply) Variation	161 S	March 9, 1970
5.15	Dunlop Dunstar Fire-Resistant (5 ply) Variation	168 S	April 29, 1970
5.16	Dunlop Fire-Resistant NN-60 PVC	175 FR	Sept. 3, 1970
5.17	Dunlop Fire-Resistant NN-80 PVC	176 FR	Sept. 3, 1970

FIRE-RESISTANT CONVEYOR BELTING continued

6.

Holder of Certificate: J.H. Fenner & Co., Limited,
Hull, England.
Canadian Agent:
Acme Chain & Gear Limited,
1025 Sixth Avenue,
Lachine, Montreal, Quebec.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
6.1	Fenaplast Diamond Type, Flame-Resistant, Anti-Static (2500; 2700; 3000; 3500; 4500; 5000; 6000)	74 FR	Apr. 13, 1966

7.

Holder of Certificates: Bando Rubber Manufacturing Co. Ltd.,
Kobe, Japan,
Tokyo Branch: 6-2-Chome,
Nishi Hatchobori,
Chuo-Ku, Tokyo, Japan.
Canadian Agent: Mr. Leo Ash,
1916 Connaught St.,
Regina, Saskatchewan.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
7.1	Bando-Fire-Resistant Type No. 300 (4 ply)	81 FR	Dec. 8, 1966
7.2	Bando Fire-Resistant Type No. 300 (5 ply) (Improved Quality)	117 S	April 18, 1968
7.3	Bando Fire-Resistant Type No. 100 ST-650 Steel Cord	129 FR	July 24, 1968
7.4	Bando Fire-Resistant Type No. 200	134 FR	Aug. 28, 1968

FIRE-RESISTANT CONVEYOR BELTING continued

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
7.5	Bando Fire-Resistant No. 100 Steel Cord	142 FR	Jan. 16, 1969
7.6	Bando Fire-Resistant Belt No. 100	151 FR	July 18, 1969
7.7	Bando Fire-Resistant Type No. 300 (Improved Quality)	193 S	May 19, 1971
7.8	Bando Fire-Resistant No. 300 Steel Cord	211 FR	Jan 19, 1972

FIRE-RESISTANT CONVEYOR BELTING continued

8.

Holder of Certificates: Tokai Rubber Industries, Limited,
Komaki, Japan.
Canadian Agent:
Sumitomo Shoji Canada Limited,
116, 510 West Hastings Street,
Vancouver 2, British Columbia.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
8.1	"Safe" Band (4 ply)	84 FR	Feb. 24, 1967
8.2	"Safe" Brand (4 ply) variation	91 FR	May 15, 1967
8.3	"Safe" Brand (4 ply) V388	103 FR	Dec. 5, 1967
8.4	"Safe" Brand (3 ply) V415	128 FR	July 16, 1968
8.5	"Safe" Brand (4 ply) V 415	138 S	Oct. 21, 1968
8.6	"Special Safe" Brand Steel Cord ST-4450	139 FR	Oct. 22, 1968

FIRE-RESISTANT CONVEYOR BELTING continued

9.

Holder of Certificates: Telleborgs Gummifabrik A B,
Telleborg, Sweden.
Canadian Agent:
Mine Equipment Co., Limited,
32 Progress Ave.,
Scarborough, Ontario.

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
9.1	5 RP 16, 5/32" x 3/64" Antiflame C (5 ply)	85 FR	Apr. 10, 1967
9.2	5 EP 25, 1/4" x 5/64" Antiflame C (5 ply) and 5/32" x 3/64" Antiflame C (5 ply)	130 FR	July 30, 1968
9.3	5 EP 16 1/8" x 1/16" Antiflame C (5 ply)	131 FR	Aug. 13, 1968

FIRE-RESISTANT CONVEYOR BELTING continued

10.

Holder of Certificates: Mitsuboshi Belting Limited,
P.O. Box 535, Kobe, Japan
Canadian Agent:
City Machinery Co., Limited,
783 Main Street, Winnipeg 4, Manitoba.

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
10.1 NN-120 "Start" Brand	87 FR	Apr. 24, 1967

Holder of Certificates: Mitsuboshi Belting Limited,
P.O. Box 535, Kobe, Japan
Canadian Agent:
Mitsubishi International Corp.,
P.O. Box 143,
Toronto 1, Ontario

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
10.2 VFN-260 (7 ply) Neoprene Fire-Resistant	105 FR	Jan. 22, 1968
10.3 VFN-450 (4 ply) Neoprene Fire-Resistant	106 FR	Jan. 22, 1968
10.4 ST-1600 Steel Cord Belt	122 FR	June 14, 1968
10.5 ST-1600 Steel Cord Belt	126 FR	June 27, 1968
10.6 "Start" Brand Variation	146 S	Feb. 20, 1969

FIRE-RESISTANT CONVEYOR BELTING continued

11.

Holder of Certificates: Bridgestone Tire & Rubber Company,
No. 1, 1-Chome, Kyobaski, Chuo-Ku,
Tokyo, Japan.
Canadian Agent:
United Tire & Rubber Co. (Canada) Ltd.,
150 Brockport Drive,
Rexdale, Ontario

	<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
11.1	FR "A" Fire-Resistant	99 FR	Oct. 30, 1967
11.2	FR "B" Fire-Resistant	100 FR	Oct. 30, 1967
11.3	FR "C" Fire-Resistant	107 FR	Jan. 23, 1968
11.4	FR "D" Fire-Resistant	108 FR	Jan. 23, 1968
11.5	Fire-Resistant Steel Cord Type FR "H"	205 FR	Sept. 8, 1971
11.6	Fire-Resistant Type FR "L"	215 FR	Apr. 26, 1972
11.7	Fire-Resistant Type FR "K"	216 FR	Apr. 27, 1972
11.8	Fire-Resistant Type FR "M"	223 FR	July 27, 1972

FIRE-RESISTANT CONVEYOR BELTING continued

12.

Holder of Certificates: Hewitt-Robins Incorporated,
240 Kensington Ave.,
Buffalo, New York, U.S.A.

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
12.1 Hewitt Mineveyor Style 200	101 FR	Nov. 7, 1967

13.

Holder of Certificate: Turner Bros. Asbestos Co. Ltd.,
P.O. Box No. 40,
Rochdale, Lancashire, England.
Canadian Agent:
Atlas Asbestos Co.,
5600 Hochelaga Street,
Montreal 5, P.Q.

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
13.1 CBF 218 (4 ply)	113 FR	Mar. 21, 1968

14.

Holder of Certificates: Yokohama Rubber Company, Ltd.,
P.O. Box 46, Shiba,
Tokyo, Japan

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
14.1 Yokohama Fire Safety Steel Cord	137 FR	Oct. 2, 1968
14.2 Yokohama Brand Fire Safety Nylon Duck	149 FR	April 21, 1969

FIRE-RESISTANT CONVEYOR BELTING continued

15.

Holder of Certificate: Clouth Gummiwerke Aktiengesellschaft
5 Koln 60 - Postfach 60 01 67
West Germany
Canadian Agent:
Petroleum Rubber Limited,
9725 - 62 Avenue
Edmonton 81, Alberta

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
15.1 Duoply 630/2	157 FR	Dec. 16, 1969

16.

Holder of Certificates: Apex Belting Pty., Limited
268-272 Geelong Road,
West Footscray, 3012
Victoria, Australia

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
16.1 Apex F.R.A.S. Neoprene Belting Reinforced with KN3 Fabric	165 FR	April 16, 1970
16.2 Apex 3300 Blue Solid Woven Carcass PVC F.R.A.S.	232 FR	Feb. 26, 1973
16.3 Apex 3500 Blue Solid Woven Carcass PVC F.R.A.S.	233 FR	Feb. 26, 1973

FIRE-RESISTANT CONVEYOR BELTING continued

17.

Holder of Certificate: Colmant and Cuvelier Société Anonyme
Boulevard des Combattants,
B-7500, Tournai, Belgique

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
17.1 Vinyplast Fire-Resistant PVC Type CCT 622	207 FR	Nov. 4, 1971

18.

Holder of Certificates: Georgia Duck & Cordage Mill,
Scottdale, Georgia 30079,
U.S.A.

<u>Style</u>	<u>Certificate No.</u>	<u>Date Certified</u>
18.1 Poly-Vinylon Style PV 600	209 FR	Dec. 13, 1971
Name Changed to Poly-Vinylok	Schedule Extension	Nov. 3, 1972
18.2 Poly-Vinylon Style PV 800	222 FR	June 8, 1972
Name Changed Poly-Vinylok	Schedule Extension	Nov. 3, 1972
18.3 Poly-Vinylok Style PV 600	264 FR	Dec. 16, 1974
18.4 Poly-Vinylok Style PV 610	269 FR	Mar. 18, 1975

FIRE-RESISTANT JACKETS ON CABLES

1.

Holder of Certificate: Bell Canada
Northern Electric Research, Ltd.,
P.O. Box 6122
Montreal 101

1.1 Cable: Northern Electric Portable Power
Cable Type SHD, 1000 Volts
3 Power Conductors 4 AWG
3 Ground Conductors 10 AWG

Certificate No.: 206 FRJ

Date Certified: Sept. 21, 1971

2.

Holder of Certificates: ITT Wire and Cable
1111 Boul. International,
St. Jerome, Quebec

2.1 Cable: ITT Portable Power Cable Type SHD-GC
EPR Insulation-Powerflex 90 Jacket,
5000 Volts - Grounded Neutral
3 Power Conductors 2 AWG
2 Ground Conductors 6 AWG
1 Ground Check Conductor 8 AWG

Certificate No.: 236 FRJ

Date Certified: March 9, 1973

FIRE-RESISTANT JACKETS ON CABLES , continued

2.2 Cable: A range of ITT Portable Power Cables Type W
and Type G - round
90 c. Insulation - Powerflex 90 Jacket -
600 Volts -
Type W*: Sizes 2 to 8 AWG - 4 conductors
Type G* - round:

Size 2 AWG - 4 power conductors
4 ground conductors 9 AWG
Size 3 & 4 AWG - 4 power conductors
4 ground conductors 12 AWG

(*Use limited in coal mines as all provinces
require individually screened power conductors
in trailing cables)

Certificate No.: 247 FRJ
Date Certified: August 14, 1973

LAMPS ELECTRIC

1.

Holder of Certificate: Ward Leonard of Canada, Ltd.,
1070 Birchmount Road,
Box 70, O'Connor Postal Station,
Toronto 16, Ontario.

1.1 Apparatus: Explosion-Proof "SAFTLITE" 509 A/E X 2
Electrical Supply: 110 Volts, 1 Phase, 60 Cycles, and
self-contained emergency battery
Certificate No.: 9 FP
Date Certified: August 26, 1959

2.

Holder of Certificates: Nickel Alkaline Battery Division,
The Electric Storage Battery Co.,
169 Main Street,
West Orange,
New Jersey, U.S.A.
Canadian Agent:
Mine Safety Appliances Co. of Canada
Limited,
500 MacPherson Avenue,
Toronto 4, Ontario.

2.1 Apparatus: Edison Model S Electric Cap Lamp
Certificate Nos.: 12 L, 20 S and 45 S
Date Certified: March 11, 1960
Dates of
Supplementary February 20, 1961
Certificates: December 9, 1963

LAMPS, ELECTRIC continued

3.

Holder of Certificates: Mine Safety Appliances Co.,
201 North Braddock Avenue,
Pittsburgh 8, Pa., U.S.A.
Canadian Agent:
Mine Safety Appliances Co. of Canada
Limited,
500 MacPherson Avenue,
Toronto 4, Ontario.

3.1 Apparatus: MSA Minespot Electric Cap Lamp
Certificate No.: 39 L
Date Certified: September 18, 1963

3.2 Apparatus: MSA Minespot Electric Cap Lamp ML-2
Certificate No.: 93 L
Date Certified: February 7, 1968

4.

Holder of Certificates: Koehler Manufacturing Co.,
Marlboro, Massachusetts, 01752,
U.S.A.

4.1 Apparatus: Miners' Cap Lamps
Models 282-1A and 5100 and 5200
Certificate Nos.: 61 L and 97 S
Dates Certified: April 6, 1965
October 10, 1967

LAMPS, ELECTRIC continued

5. Holder of Certificate: Société des Accumulateurs Fixes
et de Traction,
Romainville, France,
Canadian Agent:
ECP Electro Chemical Products Ltd.,
2220 Midland Avenue,
Scarborough, Ontario
- 5.1 Apparatus: "Saft" Portable Miner's Cap Lamp
Type 3 VR 10
- Certificate No.: 73 L
- Date Certified: April 20, 1966
6. Holder of Certificate: Honda Denki Co., Limited,
5-37, 4-Chome, Kamiosaki,
Shinagawa-Ku, Tokyo, Japan
Canadian Agent:
Fleck Bros. Limited,
110 Alexander St.,
Vancouver 4, B.C.
- 6.1 Apparatus: Safety Mine Cap Lamp Type SH
- Certificate No.: 179 L
- Date Certified: October 28, 1970

LAMPS, ELECTRIC continued

7.

Holder of Certificates: Ocean Energy Incorporated,
101 Industrial Park Road,
Box 8,
Blairsville, Penna., 15717
U.S.A.

7.1 Apparatus: L500 Series Fluorescent Cap Lamp

Certificate No.: 272 L

Date Certified: Aug. 12, 1975

7.2 Apparatus: Folding Type Model 900 and Compact
Type Model 800
Fluorescent Portable Task Luminaires
with battery 13-5-9 Volts

Certificate No.: 273 L

Date Certified: Aug. 12, 1975

8.

Holder of Certificate: Crouse-Hinds Canada, Ltd.,
1160 Birchmount Road,
Scarborough, Ontario,
M1P 2B9

8.1 Apparatus: Hazard Gard III Mercury Vapour Fixtures
Only the following are covered by this
certificate:

- (a) EVMCX82101-SX3 100 Watt 120V Single feed
- (b) EVMCX82101-SX4 100 Watt 120V Through feed
- (c) EVMCX82171-SX3 175 Watt 120V Single feed
- (d) EVMCX82171-SX4 175 Watt 120V Through feed
- (e) EVMCX82251-SX3 250 Watt 120V Single feed
- (f) EVMCX82251-SX4 250 Watt 120V Through feed

Electrical Supply: 120 Volts, Single Phase, 60 Cycles

Certificate No.: 275 FPL

Date Certified: May 30, 1975

METHANE DETECTORS

1.

Holder of Certificates: Mine Safety Appliances Co. Limited,
Queenslie Industrial Estate,
New Edinburgh Road,
Glasgow, Scotland.
Canadian Agent:
Mine Safety Appliances Co. of Canada
Limited,
500 MacPherson Avenue,
Toronto 4, Ontario.

1.1 Apparatus: M.S.A. General Purpose Methanometer

Certificate Nos.: 24 M and 33 S

Date Certified: June 5, 1961

Date of
Supplementary
Certificate: February 14, 1963

2.

Holder of Certificate: Sigma Instrument Co., Limited,
Letchworth, England.
Canadian Agent:
George Kent (Canada) Ltd.,
389 Horner Avenue,
Toronto 14, Ontario.

2.1 Apparatus: Sigma Recording Flame Methanometer,
Type 208/C

Certificate No.: 56 M

Date Certified: June 16, 1964

MOTORS

1.

Holder of Certificates: Canada Iron Foundries Limited,
Tampar Division,
160 St. Joseph Street,
Lachine, Montreal 32, Quebec.

1.1 Apparatus: 50 H.P., 550 Volts, 3 Phase, 60 Cycles
Fan-Cooled Induction Motor,
Assembled on Frame 365 U, with
Special End-Bracket for
Hydraulic Pump

Certificate Nos.: 4 FP and 15 S

Date Certified: July 30, 1958

Date of
Supplementary
Certificate: June 14, 1960

1.2 Apparatus: Series of 550 Volts, 3 Phase, 60 Cycles,
Fan-Cooled Induction Motors,
Assembled on C.E.M.A. Frames
180 to 445. Ratings of 1/2 to 100 h.p.,
with speeds of 900 to 3600 r.p.m.

Certificate Nos.: 6 FP, 43 S, 54 S

Date Certified: November 19, 1958

Dates of
Supplementary
Certificates: October 9, 1963
April 24, 1964

MOTORS continued

2.

Holder of Certificates:	Canadian Westinghouse Co. Limited, Box 510, Hamilton, Ontario
2.1 Apparatus:	25 H.P., 550 Volts, 3 Phase, 60 Cycles, 1200 RPM, T.E.F.C. Induction Motor, Frame 365-U, with 30-Ampere Socket
Certificate No.:	35 FP
Date Certified:	April 17, 1963
2.2 Apparatus:	30 H.P., 550 Volts, 3 Phase, 60 Cycles, 1800 RPM, T.E.F.C. Induction Motor, Frame 326-U, with 30-Ampere Socket
Certificate No.:	36 FP
Date Certified:	August 14, 1963
2.3 Apparatus:	A series of Ribbed, Totally Enclosed, Polyphase Induction Motors, Frames 182 to 506, Voltages 600 or less (For power supply via conduit)
Certificate No.:	38 FP
Date Certified:	July 11, 1963
2.4 Apparatus:	100 H.P., 550 Volts, 3 Phase, 60 Cycles, 1770 RPM, T.E.F.C. Induction Motor, Frame 440 U.S., with Cable-Entry Gland and 10 ft of Cable
Certificate No.:	40 FP
Date Certified:	October 10, 1963

MOTORS continued

- 2.5 Apparatus: 5 H.P., 550 Volts, 3 Phase, 60 Cycles,
1735 RPM, T.E.F.C. Induction Motor,
Frame 215, with Cable-Entry Gland
and 10 ft of Cable
- Certificate No.: 41 FP
- Date Certified: December 11, 1963
- 2.6 Apparatus: 125 H.P., 550 Volts, 3 Phase, 60 Cycles,
3565 RPM, T.E.F.C. Explosion Proof
Induction Motor
Frame 445 U.S., Serial No. 18S8262,
with cable gland and 10 ft. of cable
- Certificate No.: 143 FP
- Date Certified: March 17, 1969
- 2.7 Apparatus: 200 H.P., 2200 Volts, 3 Phase, 60 Cycles,
3570 RPM, T.E.F.C. Explosion Proof
Induction Motor
Frame 506 U.S., Serial No. 17S2305
with cable gland and 10 ft. of cable
- Certificate No.: 144 FP
- Date Certified: March 31, 1969
- 2.8 Apparatus: A series of 575 Volts, 3 Phase, 60 Cycles,
Induction Motors, Frames 182T to 445 T
(For power supply via conduit)
- Certificate No.: 147 FP
- Date Certified: February 21, 1969
- 2.9 Apparatus 5 H.P., 575 Volts, 3 Phase, 60 Cycles,
1145 RPM, TEFC Type HSB Induction Motor,
Frame 215 T with cable gland, 10 ft of
cable and protective hose cable covering
- Certificate No.: 148 FP
- Date Certified: February 24, 1969

MOTORS continued

- 2.10 Apparatus: 100 H.P., 550 Volts, 3 Phase, 60 Cycles
1180 RPM, TEFC Type HSA Induction Motors
Frame 445 US with cable gland
and short piece of cable
- Certificate No.: 153 S (Supplementary to 38 FP and 40 FP)
- Extension Date: October 6, 1969
- 2.11 Apparatus: 10 H.P., 575 Volts, 3 Phase, 60 Cycles,
1745 RPM, Type HSB Induction Motors,
Frame 215T with cable gland and short
piece of cable
- Certificate No. 147 FP-154S
- Extension Date: October 14, 1969
- 2.12 Apparatus: 100 H.P., 550 Volts, 3 Phase, 60 Cycles
1775 RPM, Type HSB Induction Motor
Frame 444 TS with cable gland, and
hose covering for cable
- Certificate No.: 147 FP - 156 S
- Extension Date: November 13, 1969
- 2.13 Apparatus: 40 H.P., 575 Volts, 3 Phase, 60 Cycles
1775 RPM, Induction Motor
Frame 324T, Serial No. 18S5434 with
cable gland and short piece of cable
- Certificate No.: 147 FP - 166S
- Extension Date: April 17, 1970
- 2.14 Apparatus: 100 H.P., 575 Volts, 3 Phase, 60 Cycles
1180 RPM, Induction Motor
Frame 444 TS with cable gland, short
piece of cable and protective hose.
Supplied to Joy Manufacturing Co. for
an assembly; without cable gland, cable
and hose.
- Certificate No.: 147 FP - 167 S
- Extension Dates: April 27, 1970 and May 14, 1970

MOTORS continued

- 2.15 Apparatus: 100 H.P., 575 Volts, 3 Phase, 60 Cycles
1775 RPM, Induction Motor, Frame 405 TS
with cable gland, short piece of cable
and hose.
- Certificate No.: 147 FP - 173 S
- Extension Date: June 19, 1970
- 2.16 Apparatus: 20 H.P., 575 Volts, 3 Phase, 60 Cycles
1775 RPM, Induction Motor, Frame 256 T
Supplied to Joy Manufacturing as
Assembly Component
- Certificate No.: 147 FP - 178 S
- Extension Date: October 6, 1970
- 2.17 Apparatus: 25 H.P., 575 Volts, 3 Phase, 60 Cycles,
1770 RPM, Induction Motors, Frame 284 T
Serial No. 1-18S4718 and 2-18S4718
with cable gland
- Certificate No.: 147 FP - 194S
- Date Certified: May 21, 1971
- 2.18 Apparatus: 30 H.P., 575 Volts, 3 Phase, 60 Cycles,
1770 RPM, Type HSB Induction Motor
Frame 286T with Flameproof Connector
attached (male portion)
- Certificate No.: 147 FP - 202 S
- Date Certified: July 19, 1971
- 2.19 Apparatus: 125 H.P., 575 Volts, 3 Phase, 60 Cycles,
3560 RPM, Induction Motor, Frame 445TSZ
with cable gland.
- Certificate No.: 147 FP - 204S
- Date Certified: August 20, 1971

MOTORS continued

- 2.20 Apparatus: 30 H.P., 575 Volts, 3 Phase, 60 Cycles, 1770 RPM, Induction Motors, Frame 286 T with a flameproof plug and socket
Certificate No.: 147 FP - 212S
Date Certified: March 6, 1972
- 2.21 Apparatus: 10 H.P., 575 Volts, 3 Phase, 60 Cycles 705 RPM, Induction Motors, Frame 286 T with a flameproof plug and socket
Certificate No.: 147 FP - 214 S
Date Certified: March 6, 1972
- 2.22 Apparatus: 15 H.P., 575 Volts, 3 Phase, 60 Cycles, 695 RPM, Induction Motors, Frame 324 T with a flameproof plug and socket
Certificate No: 147FP-220 S
Date Certified: June 5, 1972
- 2.23 Apparatus: 20 H.P., 575 Volts, 3 Phase, 60 Cycles, 1755 RPM, Induction Motors, Frame 256 TD, with cable entry gland.
Serial Nos. 1-19S3239 and 2-19S3239
Certificate No.: 147 FP - 221 S
Date Certified: June 5, 1972
- 2.24 Apparatus: 40 H.P., 440/575 Volts, 3 Phase, 50/60 Cycles, 2915/3545 RPM, Induction Motor, Frame 326 TS, Serial No. 1-18S5887
Certificate No.: 147 FP - 234 S
Date Certified: March 2, 1973
- 2.25 Apparatus: 15 H.P., 575 Volts, 3 Phase, 60 Cycles, 1760 RPM, Induction Motors, Frame 254 T with a flameproof plug and socket
Certificate No.: 147 FP - 238 S
Date Certified: May 8, 1973

MOTORS continued

- 2.26 Apparatus: 25 H.P., 575 Volts, 3 Phase, 60 Cycles
1770 RPM, Induction Motor, Frame 284 T
with a flameproof plug and socket
Certificate No.: 147 FP - 239 S
Date Certified: May 8, 1973
- 2.27 Apparatus: 125 H.P., 575 Volts, 3 Phase, 60 Cycles,
3560 RPM, Induction Motors, Frame 445 TSZ
with a flameproof plug and socket
Certificate No.: 147 FP - 251 S
Date Certified: August 31, 1973
- 2.28 Apparatus: 140 H.P., 575 Volts, 3 Phase, 60 Cycles,
1770 RPM, Induction Motors, Frame 447 TY
Serial No. 1-19S8130 with flameproof plug,
socket and adapter
Certificate No.: 147 FP - 255 S
Date Certified: November 21, 1973
- 2.29 Apparatus: 50 H.P., 575 Volts, 3 Phase, 60 Cycles,
880 RPM, Induction Motors, Frame 404 T
with flameproof plug and socket.
Certificate No.: 147 FP - 256 S
Date Certified: November 29, 1973
- 2.30 Apparatus: 10 H.P., 575 Volts, 3 Phase, 60 Cycles,
1765 RPM, Induction Motors, Frame 215T
with cable entry gland
Certificate No.: 147 FP - 257 S
Date Certified: January 15, 1974
- 2.31 Apparatus: 75 H.P., 575 Volts, 3 Phase, 60 Cycles,
1775 RPM, Induction Motors, Frame 365 TCZ
with cable entry gland.
Certificate No.: 147 FP - 258 S
Date Certified: April 22, 1974

MOTORS continued

- 2.32 Apparatus: 30 H.P., 575 Volts, 3 Phase, 60 Cycles,
1800 RPM, Induction Motors, Frame 286T,
Serial Nos. 1-28S4190; 2-28S4190,
3-28S4190 and 4-28S4190 with cable entry
gland
- Certificate No.: 147 FP - 262 S
- Date Certified: May 16, 1974
- 2.33 Apparatus: 10 H.P., 575 Volts, 3 Phase, 60 Cycles,
1800 RPM, Induction Motors, Frame 215T
Serial Nos. 1-28S2662 and 2-28S2662
- Certificate No.: 147 FP - 263 S
- Date Certified: August 20, 1974
- 2.34 Apparatus: 75 H.P., 575 Volts, 3 Phase, 60 Cycles,
1800 RPM, Induction Motor, Frame 365 TSCZ
Serial No. 1-19S6216
- Certificate No.: 147FP-270 S
- Date Certified: April 21, 1975

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES

1.

Holder of Certificates: Joy Manufacturing Co.(Canada) Limited,
P.O. Box 100, Galt, Ontario.

1.1 Apparatus: Flameproof Conveyor Controller
for 20 HP

Electrical Supply: 550 Volts, 3 Phase, 60 Cycles

Certificate No.: 88 FP

Date Certified: May 2, 1967

1.2 Apparatus: 6 variations of flameproof "Safety
Circuit Centers" all include components
for earth leakage protection and
intrinsically safe pilot circuits.

Electrical Supply: 600 Volts, 3 Phase, 60 Cycles

SCC 546273 1 input: 180 A (continuous rating)
4 circuit Breakers
4 outlets: 2 @ 35 A, 2 @ 90 A

SCC 546330 1 input: 180 A (continuous rating)
4 circuit breakers
4 outlets:- 1 @ 35 A; 3 @ 90 A

SCC 546274 1 input: 35 A (continuous rating)
4 circuit breakers
4 outlets: 4 @ 35 A

SCC 546273-1 1 input: 180 A (continuous rating)
4 circuit breakers
5 outlets: 2 @ 35 A; 2 @ 90 A; 1 @ 180 A

SCC 546335 1 input: 180 A (continuous rating)
4 circuit breakers
4 outlets: 2 @ 35 A; 1 @ 90 A; 1 @ 180 A

1.2 continued.....

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

1.2 continued

SCC 546348 1 input: 180 A (continuous rating)
 4 circuit breakers
 4 outlets: 4 @ 65 A

Certificate Nos.: 94 FP, 140 S, 145 S, 163 S, 164 S, 180 S

Date Certified: September 28, 1967

Extension Dates: November 21, 1968, January 24, 1969,
 April 14, 1970, April 15, 1970 and
 November 24, 1970

1.3

Apparatus: Model LA "Safety Circuit Center"
 Includes components for earth leakage
 protection and intrinsically safe pilot
 leads

Electrical Supply: 600 Volts, 3 Phase, 60 Cycles
 1 input: 180 A (continuous rating)
 1 circuit breaker
 1 output: 180 A

Certificate Nos.: 95 FP and 181 S

Date Certified: October 2, 1967

Extension Date: November 27, 1970

1.4

Apparatus: 3 Flameproof Motor Controllers
 which include circuit breaker, motor
 starter and components for intrinsically
 safe pilot leads

Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
 Controller CD 3589: 7 1/2 HP
 Controller CD 3593: 15 HP
 Controller CD 3635: 20 HP

Certificate Nos.: 96 FP and 188 S

Date Certified: October 2, 1967

Extension Date: April 8, 1971

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

- 1.5 Apparatus: "Safety Circuit Centers"
546785 FB-FB-FB-FB
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
1 input: 180A (continuous rating)
2 100 A Output Circuit Breakers
2 70 A Output Circuit Breakers
- Certificate No.: 197 FP
- Date Certified: May 25, 1971
- 1.6 Apparatus: Controller 546797
Line starter for 20 H.P. Motor
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 199 FP
- Date Certified: May 26, 1971
- 1.7 Apparatus: Gang Box 569043
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 224 FP
- Date Certified: September 28, 1972
- 1.8 Apparatus: "Safety Circuit Center" 546 330-1
Contains 1-90A and 3-125A Circuit Breakers
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 225 FP
- Date Certified: October 4, 1972

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

- 1.9 Apparatus: Controller 569044 (25 H.P.)
Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 226 FP
Date Certified: October 4, 1972
- 1.10 Apparatus: "Safety Circuit Center" 546272-1
Model "LA"
Contains a 300 A Circuit Breaker
Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 227 FP
Date Certified: October 4, 1972
- 1.11 Apparatus: "Safety Circuit Center" Model "LA"
546262-2, Contains 600A Circuit Breaker
Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
Certificate No.: 231 FP
Date Certified: February 8, 1973

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

2.

Holder of Certificate: Crouse-Hinds Company of Canada Limited,
1160 Birchmount Road,
Scarborough, Ontario.

2.1 Apparatus: EFS and EFD Series Tumbler Switch
Condulets, Furnished with Tumbler
Switches (Certified for Conduit
Installations Only). See List Below.

Certificate No.: 5 FP

Date Certified: July 31, 1958

Dead End Single-Gang Cat. No.	Through Feed Single-Gang Cat. No.	Switch Information				
		Style	Amperes		H.P. at 230-V. A.C.	Size Hub
			125 V.	250 V.		
EFS1129	EFSC1129	1-Pole	20T	10	-	1/2
EFS118	EFSC118	2-Pole	20T	20	2	
EFS1130	EFSC1130	3-Way	15T	10	-	
EFS1140	EFSC1140	4-Way	5T	2	-	
EFS2129	EFSC2129	1-Pole	20T	10	-	3/4
EFS218	EFSC218	2-Pole	20T	20	2	
EFS2123	EFSC2123	3-Pole	10	5	1/2	
EFS2130	EFSC2130	3-Way	15T	10	-	
EFS2140	EFSC2140	4-Way	5T	2	-	
EFS3129	EFSC3129	1-Pole	20T	10	-	1
EFD3591	EFDC3591	1-Pole	30T	30	-	
EFS318	EFSC318	2-Pole	20T	20	2	
EFD3593	EFDC3593	2-Pole	30T	30 [‡]	2	
EFS3123	EFSC3123	3-Pole	10	5	1/2	
EFS3130	EFSC3130	3-Way	15T	10	-	
EFS3594	EFDC3594	3-Way	30T	30	-	
EFS3140	EFSC3140	4-Way	5T	2	-	
EFD3590	EFDC3590	4-Way	20T	10	-	
EFS3540	EFSC3540	DP DT-no "OFF"	10	5	-	
EFS3539	EFSC3539	DP DT-with "OFF"	20	10 [§]	2	
EFS3424	EFSC3424	3P DT-with "OFF"	10	5	1/2	

(cont'd)

[‡] Also rated at 20 amperes, 600 volts. [§] Also rated at 5 amperes, 600 volts.

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

EFS and EFD Series Tumbler Switch Condulets (cont'd)

Furnished With Tumbler Switches

Dead End Two-Gang Cat. No.	Through Feed Two-Gang Cat. No.	Switch Information				
		Style	Amperes		H. P. at 230-V. A. C.	Size Hub
			125 V.	250 V.		
EFS1229	EFSC1229	1-Pole	20T	10	-	1/2
--	EFSC128	2-Pole	20T	20	2	
--	EFSC1230	3-Way	15T	10	-	
--	EFSC1240	4-Way	5T	2	-	
EFS2229	EFSC2229	1-Pole	20T	10	-	3/4
--	EFSC228	2-Pole	20T	20	2	
--	EFSC2223	3-Pole	10	5	1/2	
EFS2230	EFSC2230	3-Way	15T	10	-	
--	EFSC2240	4-Way	5T	2	-	
EFS3229	EFSC3229	1-Pole	20T	10	-	1
EFD3691	EFDC3691	1-Pole	30T	30	-	
EFS328	EFSC328	2-Pole	20T	20	2	
--	EFD3693	2-Pole	30T	30†	2	
--	EFSC3223	3-Pole	10	5	1/2	
EFS3230	EFSC3230	3-Way	15T	10	-	
EFD3694	EFD3694	3-Way	30T	30	-	
EFS3240	EFSC3240	4-Way	5T	2	-	
EFD3690	EFDC3690	4-Way	20T	10	-	
For Surface Mounting		For Flush Mounting		Amperes		Size
Plain Finish		Chromium Plated Cover				
Cat. No. (Single Switch)		Cat. No. (Single Switch)				
EFS1101	EFS1121	1-Pole	10T	5		1/2
EFS1100	EFS1120	2-Pole	10T	10		1/2
EFS1107	EFS1119	3-Way	10T	5		1/2
EFS1108	EFS1124	4-Way	5T	2		1/2
EFS2101	EFS2121	1-Pole	10T	5		3/4
EFS2100	EFS2120	2-Pole	10T	10		3/4
EFS2107	EFS2119	3-Way	10T	5		3/4
EFS2108	EFS2124	4-Way	5T	2		3/4
EFSC1101	EFSC1121	1-Pole	10T	5		1/2
EFSC1100	EFSC1120	2-Pole	10T	10		1/2
EFSC1107	EFSC1119	3-Way	10T	5		1/2
EFSC1108	EFSC1124	4-Way	5T	2		1/2

† Also rated at 20 amperes, 600 volts.

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

EFS and EFD Series Tumbler Switch Condulets (continued)

Furnished With Tumbler Switches

For Surface Mounting	For Flush Mounting	Style	Amperes		Size		
			Plain Finish	Chromium Plated Cover		125	250
						Cat. No. (Single Switch)	Cat. No. (Single Switch)
EFSC2101	EFSC2121	1-Pole	10T	5	3/4		
EFSC2100	EFSC2120	2-Pole	10T	10	3/4		
EFSC2107	EFSC2119	3-Way	10T	5	3/4		
EFSC2108	EFSC2124	4-Way	5T	2	3/4		
Cat. No. (Duplex Switch)	Cat. No. (Duplex Switch)						
EFS1109	EFS1125	1-Pole	10T	5	1/2		
EFS2109	EFS2125	1-Pole	10T	5	3/4		
EFS2110	EFS2126	2-Pole	10T	10	3/4		
EFS2113	EFS2127	3-Way	10T	5	3/4		
EFS3114	EFS3128	4-Way	5T	2	1		
EFSC1109	EFSC1125	1-Pole	10T	5	1/2		
EFSC1110	EFSC1126	2-Pole	10T	10	1/2		
EFSC1113	EFSC1127	3-Way	10T	5	1/2		
EFSC1114	EFSC1128	4-Way	5T	2	1/2		
EFSC2109	EFSC2125	1-Pole	10T	5	3/4		
EFSC2110	EFSC2126	2-Pole	10T	10	3/4		
EFSC2113	EFSC2127	3-Way	10T	5	3/4		
EFSC2114	EFSC2128	4-Way	5T	2	3/4		
Cat. No. (Triple Switch)	Cat. No. (Triple Switch)						
EFS1115	EFS1131	1-Pole	10T	5	1/2		
EFS2115	EFS2131	1-Pole	10T	5	3/4		
EFS3116	EFS3132	2-Pole	10T	10	1		
EFS3117	EFS3133	3-Way	10T	5	1		
EFSC1115	EFSC1131	1-Pole	10T	5	1/2		
EFSC1116	EFSC1132	2-Pole	10T	10	1/2		
EFSC2115	EFSC2131	1-Pole	10T	5	3/4		
EFSC2116	EFSC2132	2-Pole	10T	10	3/4		
EFSC2117	EFSC2133	3-Way	10T	5	3/4		
EFSC2118	EFSC2134	4-Way	5T	2	3/4		

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

3.

Holder of Certificate: The National Acme Co.,
Cleveland, Ohio, U.S.A.

3.1 Apparatus: A series of Snap-Lock, Explosion-Proof
Switches, types
SL2X-C, SL2X-C1, SL2X-C2,
SL2X-C3, SL2X-C4, SL2X-C5,
SL2X-C6, SL2X-C7, SL2X-C8

Electrical Ratings: (1) When supplied with trailing cable
specified in the schedule associated with
the certificate:

<u>A.C. Volts</u>	<u>Amperes</u>
125	20

<u>D.C. Volts</u>	<u>Amperes</u>
125	5

(2) When supplied for conduit installations:

<u>A.C. Volts</u>	<u>Amperes</u>
125	20
250	15
480	10
600	5

<u>D.C. Volts</u>	<u>Amperes</u>
250	15
125	5

(3) When supplied for installations as part
of an assembly (on a mining machine or other
apparatus) where the switch cable is completely
enclosed by metallic protection:

Electrical rating the same as for (2).

Certificate No.: 21 FP

Date Certified: May 15th, 1961

MOTOR CONTROLLERS, "SAFETY CIRCUIT CENTERS" AND SWITCHES continued

4.

Holder of Certificate:

Pyle-National (Canada) Limited,
2560 South Sheridan Way,
Clarkson, Ontario.

4.1 Apparatus:

(Note:-
Certified only
for locations
in coal mines
where conduit
installations
are permitted)

A series of enclosures (for motor
starters, or combination motor
starters and circuit breakers, or
circuit breakers) designated

- (a) EMS Series Model 60 Motor
Starter Pylets
- (b) ECS Series Model 60
Combination Motor Starter Pylets
- (c) ECB Series Model 60
Circuit Breaker Pylets

Electrical Ratings:

Motor starters and/or circuit breakers
used in these enclosures shall have
prior certification by CSA Testing
Laboratories. The sizes shall be in
agreement with information on the listing
drawings of the certification schedule.
In no case shall the motor starter be
larger than size 4 or the voltage rating
exceed 600 volts.

Certificate No.:

65 FP

Date Certified:

August 19, 1965

SEISMITRON

1.

Holder of Certificates: Walter Nold Company,
34 Birch Road,
Natick, Mass., U.S.A.

1.1 Apparatus: Seismitron Model ZA-4

Power Supply: Battery-Operated

Certificate Nos.: 34 I.S. and 60 S

Date Certified: May 6, 1963
October 6, 1964

TELEPHONES

1.

Holder of Certificate: A.T. & E. (Bridgnorth) Limited,
Bridgnorth, Shropshire, England.
Canadian Agent:
A.T.E. of Canada Limited,
120 Eglinton Avenue, East,
Toronto 12, Ontario.

1.1 Apparatus: Type TGR 1 and TGR 2 Inductorphones

Power Supply
(TGR 1): 6 Volt nickel-cadmium accumulator

Power Supply
(TGR 2): 3 cap lamp batteries in series (12 Volts)

Certificate No.: 58 I.S.

Date Certified: September 21, 1964

MISCELLANEOUS FLAMEPROOF APPARATUS
CERTIFIED FOR
THE CROW'S NEST PASS COAL COMPANY, LTD.

1.

Receiver of Certificates: The Crow's Nest Pass Coal Company, Ltd.,
Fernie, British Columbia

1.1 Apparatus: Enclosure on an oil-pressure-operated
switch, rated 115 volts to 550 volts

Certificate No.: 25 FP

Date Certified: March 14, 1962

1.2 Apparatus: Modified Reyrolle Form JBR 1
Cable Coupler, 3300 volts, 200 Amps

Certificate No.: 30

Date Certified: August 1, 1962

1.3 Apparatus: Enclosure of electrical controls for
conveyor belt

Electrical Supply: 550 Volts, Single Phase, 60 Cycles

Certificate No.: 42 FP

Date Certified: September 30, 1963

1.4 Apparatus: Enclosure of a solenoid valve,
110 Volts, Single Phase, 60 Cycles

Certificate No.: 44 FP

Date Certified: November 20, 1963

MISCELLANEOUS FLAMEPROOF APPARATUS
CERTIFIED FOR
THE CROW'S NEST PASS COAL COMPANY, LTD. continued

- 1.5 Apparatus: Enclosure of electrical controls
for extensible belt
- Electrical Supply: 550 Volts, 3 Phase, 60 Cycles
- Certificate No.: 46 FP
- Date Certified: January 15, 1964
- 1.6 Apparatus: Modified Motor, 100 HP, 550 Volts,
3 Phase, 60 Cycles
- Certificate No.: 47 FP
- Date Certified: January 15, 1964
- 1.7 Apparatus: Enclosure of electrical control switch,
110 to 220 Volts, Single Phase,
60 Cycles
- Certificate No.: 55 FP
- Date Certified: June 15, 1964
- 1.8 Apparatus: Headlight of a "Demag" Mining Machine
- Certificate No.: 75 L (applies only to the one lamp
investigated)
- Date Certified: April 15, 1966

MISCELLANEOUS ELECTRICAL INSTRUMENTS
(for mining research program applications of the
Department of Energy, Mines and Resources)

The following instruments were developed, modified or adapted by the Department of Energy, Mines and Resources for use in research into underground stress phenomena. The certification applies only to single specific instruments, which are identified in Letters of Certification. Changes were covered by Supplementary Letters of Certification. The holder of these letters is the Mining Research Laboratories, of the Canada Centre for Mineral and Energy Technology, Department of Energy, Mines and Resources, Ottawa, Ontario

<u>Instrument</u>	<u>Letter of Certification No.</u>	<u>Date</u>
Strain Indicator	Letter No. 1	Feb. 14th, 1956
Electrical Resistivity Unit, Model 2A	Letter No. 2	Feb. 14th, 1956
Load Cell Bridge, Model 2A	Letter No. 3	Feb. 14th, 1956
Load Cell Orienting Unit	Letter No. 4	Feb. 28th, 1956
Modified Strain Indicator	Letter Supp. to No. 1	April 16th, 1956
Load Cell Orienting Unit # 2	Letter No. 5	April 20th, 1956
Load Cell Orienting Unit # 2	Letter No. 5.	April 20th, 1956
Baldwin SR4 Type N Portable Strain Indicators Serial No. 443246 and Serial No. 443702	Letter No. 6	Oct. 31st, 1958

Note 1: All the Letters of Certification listed on this page were revoked on October 20, 1975, because it is not intended to use the instruments further and some have been dismantled.

MISCELLANEOUS ELECTRICAL INSTRUMENTS continued

<u>Instrument</u>	<u>Letter of Certification No.</u>	<u>Date</u>
* Modified Baldwin SR4 Type N Portable Strain Indicator Serial No. 562872	Letter Supp. to No. 6 and Supp. Memo	Jan. 28th, 1960 Feb. 11th, 1960
* Baldwin SR 4 Type N Portable Strain Indicator, Serial No. 562900	Letter Supp. No. 6	May 6th, 1960
* Load Cell Switch Unit	Letter No. 7	May 6th, 1960
Vibrating Wire Strain Gauge Comparator Unit No. 1	Letter No. 8	Feb. 14th, 1961
Modified Vibrating Wire Strain Gauge Comparator Unit No. 1	Letter Supp. to No. 8	Oct. 29th, 1962
* Seismitron	Letter No. 9	May 7th, 1963
Modified Vibrating Wire Strain Gauge Comparator Unit No. 1	Letter Supp. to No. 8	Oct. 11th, 1963
Modified Vibrating Wire Strain Gauge Comparator Unit No. 1	Letter Supp. to No. 8	June 27th, 1969
* Modified Baldwin SR 4 Type N Portable Strain Indicator Serial No. 562872	Letter Supp. to No. 6	July 8th, 1969
Apparatus consisting of Switching Unit S.U. EMR LC10-1971 Orienting Unit O.U. EMR LC10-1971 Temperature Readout Unit T.U. EMR LC10-1971	Letter No. 10	Aug. 10th, 1971

Note 2: An asterisk beside an instrument name above means that the certification has been revoked for the same reason as given in Note 1 on page 63. Regarding the instruments without an asterisk refer to Note 3 on page 65.

MISCELLANEOUS ELECTRICAL INSTRUMENTS continued

<u>Instrument</u>	<u>Letter of Certification No.</u>	<u>Date</u>
Modified Vibrating Wire Comparator 'Mark 1A September 9, 1971"	Letter Supp. to No. 8	Sept. 9th, 1971
Soil Test Borescope Model RM-597-MRC (1971)	Letter No. 11	Jan.31st 1972 <u>Valid only to</u> <u>Jan 31st 1974</u>
Borehold Diameter Probe BDP-EMR-6S-15/5/72 Used with Baldwin Portable Strain Indicators Serial Nos. 562900 or 443702	Letter Supp. to No. 6	May 15, 1972
Monsanto Automatic Counter Model 150A, Serial No. 3147-043 and Vibrating Wire Load Cell	Letter No. 12	Feb. 27th, 1973 <u>Valid only to</u> <u>Feb. 27th, 1975</u>
Two Lucite Enclosures for Metz 402 Photo Flash Units - EMR PRIS 1 and EMR PRIS 2	Letter No. 13 issued to EMR Public Relations and Information Service	June 7th, 1973 Valid only to Sept. 7th, 1973
MSA Gascope Serial No. G6777 EMR Letter No. 14, 1973	Letter No. 14	June 18th, 1973
Modified Rubicon Potentiometer Serial No. 22069 and thermocouple	Letter No. 15	Sept. 14th, 1973
Metal Detecting Probe Circuitry and Model TIB Serial G1003 Electronic Thermometer used as an alternative to the Vibrating Wire Load Cell with Monsanto Automatic Counter Model 150A Serial No. 3147-043	Letter Supp. to No. 12 Letter Supp. to No. 12	May 2nd, 1974 This letter did not extend validity date of Letter No. 12 Jan 16th, 1975

Note 3: The validity of the Letters of Certification listed for instruments without an asterisk expires as indicated above or on June 30, 1976.

APPENDIX A

Extract From Certification Memorandum No. 1

INTERPRETATION

In this memorandum:

Certificate means the certificate issued over the signature of the Certification Officer.

Certification means that the apparatus concerned has been judged to be safe and suitable for use underground in coal mines by the certifying authority provided it is installed and maintained in a correct manner. It does not include permission for installation and use anywhere and the acceptance or rejection for use of certified apparatus in any location will remain the responsibility of the properly constituted authorities. In Canada this responsibility rests with Provincial authorities.

Certifying Authority means the Department of Energy, Mines and Resources, Ottawa, represented by the officer duly appointed by the Minister to make certifications under the name and style of "Certification Officer".

Explosion-proof means in an "Explosion-proof Enclosure" which shall have the same meaning as "Flameproof Enclosure" for certification purposes.

Flameproof means in a "Flameproof Enclosure" which is an enclosure for electrical apparatus that will withstand, without injury, any explosion of the prescribed inflammable gas that may occur within it under practical conditions of operation within the rating of the apparatus (and recognized overloads, if any, associated therewith) and will prevent the transmission of flame such as would ignite the prescribed inflammable gas which may be present in the surrounding atmosphere.

Registered Mark means the certification mark, registered at the Canadian Trade Marks Officer, which may be put on certified apparatus and which carries the initials FP, standing for "Flameproof", and E.M. and R., standing for "Department of Energy, Mines and Resources, Ottawa".

Extract From Certification Memorandum No. 2

INTERPRETATION

In this memorandum:

Certificate means the certificate issued over the signature of the Certification Officer.

Certification means that the conveyor belting concerned has been judged to be fire-resistant to the extent that samples have passed the requirements prescribed in this memorandum. It does not include permission for installation and use anywhere. The acceptance or rejection for use of certified fire-resistant belting in any location remains the responsibility of the properly constituted authorities. In Canada this responsibility rests with Provincial authorities.

Certifying Authority means the Department of Energy, Mines and Resources, Ottawa, represented by the officer duly appointed by the Minister to make certifications under the name and style of "Certification Officer".

Fire-Resistant means that samples of the conveyor belting provided by the applicant as being representative of the conveyor belting being investigated have successfully met the requirements prescribed in this memorandum.

Extract From Certification Memorandum No. 3

INTERPRETATION

In this certification memorandum:

Certificate means the certificate issued over the signature of the Certification Officer;

Certification means that the diesel powered machine or apparatus concerned has been judged to be safe and suitable for use underground in non-gassy mines by the Certifying Authority or for coal mines if specifically so stated in the certificate and on the certification plate, provided it is installed and maintained in a correct manner. The acceptance or rejection for use of certified apparatus in any location will remain the responsibility of the properly constituted authorities. In Canada, this responsibility rests with provincial authorities.

Approved Diesel Engine means a diesel engine which has been investigated by the Certifying Authority following receipt of an application for certification from the engine manufacturer and has been judged to be acceptable for use in a machine or apparatus being investigated for certification purposes;

Certifying Authority means the Department of Energy, Mines and Resources, Ottawa, represented by the officer duly appointed by the Minister to make certifications under the name and style of Certification Officer;

Explosion-proof means in an "Explosion-proof Enclosure" which shall have the same meaning as "Flameproof Enclosure" for certification purposes;

Flameproof means in a "Flameproof Enclosure" which is an enclosure for electrical or other apparatus which will withstand, without injury, an explosion of the prescribed inflammable gas that may occur within it under practical conditions of operation within the rating of the apparatus (and recognized overloads, if any, associated therewith), and will prevent the transmission of flame such as would ignite the prescribed inflammable gas which may be present in the surrounding atmosphere;

Certification Mark means the mark registered at the Canadian Trade Marks Office, which may be put on certified apparatus to indicate certification for coal mines by the Certifying Authority.

HELP PLEASE!

Please assess this report, Number _____

Report useful -	Yes _____	No _____
Report pertinent to an industry problem -	Yes _____	No _____
Subject is of high priority -	Yes _____	No _____

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- DS 75-2 (INFO) Catalogue of scientific and technical papers published by the staff of the Canada Centre for Mineral and Energy Technology (formerly Mines Branch) during 1974; Cat. No. M2-1/1975; Price \$1.00 Canada, \$1.20 other countries.

CANMET Laboratories' reports

- MRP/MSL 75-21 (IR) Mineralogical investigation of ores from the Kidd Creek deposit of Texas Gulf Sulphur; by W. Petruk & D. D. Owens; Cat. No. M38-10/75-21; Price \$0.75 Canada, \$0.90 other countries.
- MRP/MSL 75-25 (LS) Certified and provisional reference materials available from the Canada Centre for Mineral and Energy Technology as of 1975; compiled by G. H. Faye; Cat. No. M38-10/75-25; Price \$0.75 Canada, \$0.90 other countries.
- MRP/MSL 75-29 (TR) Gold ore, MA-1: Its characterization and preparation for use as a certified reference material; compiled by G. H. Faye, W. S. Bowman & R. Sutarno; Cat. No. M38-10/75-29; Price \$0.50 Canada, \$0.60 other countries.
- MRP/MSL 75-36 (IR) Mineralogical and textural study of ores from the Copper Mountain area, south-central British Columbia; by A. E. Johnson; Cat. No. M38-10/75-36; Price \$0.50 Canada, \$0.60 other countries.