NOT to be distributed outside the FACTORY MUTUAL SYSTEM, except by CLIENT.

APPROVAL REPORT

CONTROL and SIGNAL STATIONS
SERIES 8146/5
FOR HAZARDOUS (CLASSIFIED) LOCATIONS
(Product Revisions)

Prepared For:

R. Stahl Schaltgeräte GmbH
D-74653 Künzelsau
Germany

J.I. 2X4A8.AE
(3611)
July 26, 1995

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CONTROL and SIGNAL ENCLOSURES SERIES 8146/5 FOR HAZARDOUS (CLASSIFIED) LOCATIONS (Product Revisions)

from

R. Stahl Schaltgeräte GmbH
D-74653 Künzelsau
Germany

I INTRODUCTION

1.1 R. Stahl Schaltgeräte GmbH (manufacturer) requested an expansion of the Factory Mutual Research Corporation (FMRC) Approval of their 8146/5 Series Control and Signal Enclosures to include the Series 8006 Control Switch. The Series 8006 Control Switch is suitable for Class I, Division 2, Groups A, B, C and D; and dust-ignitionproof for Class II and III, Division 1, Groups E, F and G; indoor and outdoor (NEMA Types 3, 4, 4X, 5, 12, & 13) hazardous (classified) locations. However, as the environmental protection of some of the permitted components is more limited, the 8146/5 Series remains suitable for Class I, Division 2, Groups A, B, C and D; and dust-ignitionproof for Class II and III, Division 1, Groups E, F and G; indoor and outdoor (NEMA Type 3) hazardous (classified) locations.

1.2 The new control switch is identified as follows and will be added to the list of control components which can be installed in the 8146/5 Series:

Control Switch. Type 8006/a-b-00

a = Contact rating 1 or 2

b = Switching arrangement 007, 052, 087, 108, 109, 110, 189, 041, 045, 048, 053, 054, 068, 082, 096, 113, 122, 154, 177, 179, 187, 188, 190, 003, 004, 006, 011, 013, 018, 023, 027, 034, 039, 042, 044, 050, 056, 067, 074, 075, 084, 086, 104, 120, 130, 132, 141, 142, 143, 148, 153, 159, 168, 170, 171, 178, 186, 191, 192, 015, 026, 069, 085, 090, 094, 099, 100, 103, 106, 115, 116, 126, 127, 155, 172, 182, 185, 002, 009, 016, 017, 020, 024, 025, 028, 035, 043, 049, 057, 058, 059, 071, 076, 077, 078, 095, 098, 112, 121, 123, 124, 125, 128, 131, 133, 137, 146, 147, 149, 151, 156, 162, 165, 166, 169, 176, 181, 184, 040, 065, 066, 089, 091, 102, 107, 111, 118, 138, 167, 010, 031, 032, 033, 037, 038, 060, 061, 072, 081, 083, 097, 114, 117, 134, 136, 160, 163, 174, 175, 193, 046, 062, 063, 064, 092, 119, 150, 152, 021, 022, 029, 047, 079, 080, 088, 093, 105, 135, 139, 145, 140, 158, 180, 008, 014, 019, 030, 051, 055, 073, 101, 129, 144, 157, 161, 173, or 183.

Note: Only the most common switching arrangements are shown on the attached sales literature.

1.3 The products noted in paragraph 1.2 will also be private labeled by R. Stahl Schaltgeräte GmbH for Killark-Stahl, Inc., Saint Louis, MO. When marked for Killark-Stahl, the Killark-Stahl logo replaces the Stahl logo as shown on the attached marking drawings. All other marking information remains the same.

1.4 Approval of the subject equipment is based on the applicable requirements of the following standards.

Title	Author-Number	Date
Electrical Equipment for use in Hazardous (Classified) Locations General Requirements	FM-3600	1989
Electrical Equipment for Use in Class I, Division 2; Class II, Division 2; and Class III, Division 1 and 2 Hazardous (Classified) Locations	FM-3611	1986
Explosionproof Electrical Equipment General Requirements	FM-3615	1989
Electrical and Electronic Test, Measuring, and Process Control Equipment	FM-3810	1989
Enclosures for Electrical Equipment	ANSI/NEMA-250	1991

1.5 FMRC Approval of hazardous (classified) location electrical equipment is based on examination and tests of production model equipment and follow-up audit inspections of manufacturing facilities and quality control procedures.

1.6 As described by this report, the design and construction of these control switches installed in control enclosures provide for the degree of protection against electrical shock, fire, and injury required for hazardous (classified) location applications.

1.7 This report supplements Approval Report J.I. No 2Q0A4.AE and its subsequent revisions.

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SERIES 8146/5
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(Product Revisions)

Prepared For:

R. Stahl Schaltgeräte GmbH
D-74653 Künzelsau
Germany

J.I. 2X5A0.AE
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July 26, 1995

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from

R. Stahl Schaltgeräte GmbH
D-74653 Künzelsau
Germany

I INTRODUCTION

1.1R. Stahl Schaltgeräte GmbH (manufacturer) requested an expansion of the Factory Mutual Research Corporation (FMRC) Approval of their 8146/5 Series Control and Signal Enclosures to include the Series 8543 and Series 8548 Disconnect Switches. The Series 8543 and 8548 Disconnect Switches are suitable for Class I, Division 2, Groups A, B, C and D; and dust-ignitionproof for Class II and III, Division 1, Groups E, F and G; indoor and outdoor (NEMA Types 3, 4, 4X, 5, 12, & 13) hazardous (classified) locations. However, as the environmental protection of some of the permitted components is more limited, the 8146/5 Series remains suitable for Class I, Division 2, Groups A, B, C and D; and dust-ignitionproof for Class II and III, Division 1, Groups E, F and G; indoor and outdoor (NEMA Type 3) hazardous (classified) locations.

1.2 The new disconnect switches are identified as follows and will be added to the list of control components which can be installed in the 8146/5 Series:

Disconnect Switch. Type 8543/a-b-000

Disconnect Switch. Type 8548/2-c-000

a = Contact rating 1 or 2
b = Switching arrangement 035, 006, 001, 017, 021, 022, 039, 002, 010, 013, 014, 036, 044, 005, 009, 018, 020, 023, 026, 027, 032, 043, 046, 004, 015, 024, 007, 008, 011, 019, 031, 042, 048, 049, 050, or 040.
c = Switching arrangement 006, 001, 021, 002, 013, 005, 020, 027, or 011

Note: Only the most common switching arrangements are shown on the attached sales literature.

1.3 The products noted in paragraph 1.2 will also be private labeled by R. Stahl Schaltgeräte GmbH for Killark-Stahl, Inc., Saint Louis, MO. When marked for Killark-Stahl, the Killark-Stahl logo replaces the Stahl logo as shown on the attached marking drawings. All other marking information remains the same.

1.4 Approval of the subject equipment is based on the applicable requirements of the following standards.

Title	Author-Number	Date
Electrical Equipment for use in Hazardous (Classified) Locations General Requirements	FM-3600	1989
Electrical Equipment for Use in Class I, Division 2; Class II, Division 2; and Class III, Division 1 and 2 Hazardous (Classified) Locations	FM-3611	1986
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1.6 As described by this report, the design and construction of these disconnect switches installed in control enclosures provide for the degree of protection against electrical shock, fire, and injury required for hazardous (classified) location applications.

1.7 This report supplements Approval Report J.I. No. 2Q0A4.AE and its subsequent revisions.