

**U.S. Department of Labor**

Mine Safety and Health Administration  
Industrial Park Road  
RR1, Box 251  
Triadelphia, West Virginia 26059



Intrinsic Safety Evaluation No. 18-ISA080006-0  
A&CC PAR No. 94176

August 18, 2008

Trox Limited  
Attention: Mr. Phil Childs  
Newby Road Industrial Estate  
Hazel Grove,  
Stockport, Cheshire  
United Kingdom SK7 5DY

Dear Mr. Childs:

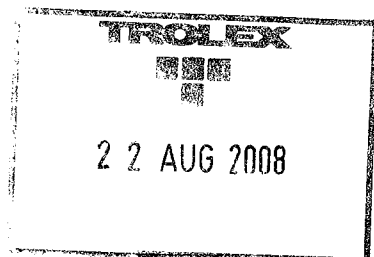
The review of your application dated July 9, 2007, for the Model TX6636 Intrinsically Safe Power Supply, is complete. The TX6636 Intrinsically Safe Power Supply includes the following components:

1. A 120v/12v or 240v/12v nominal transformer
2. A 7.4 ohm current limiting resistor
3. Triple redundant 13 volt nominal zener diodes
4. Four, Finders or Ralux, 12v relays

The design of this Model TX6636 Intrinsically Safe Power Supply meets the requirements of Title 30 Code of Federal Regulations, Section 18.68. We assign the Intrinsic Safety Evaluation No. 18-ISA080006-0 to the Model TX6636 Intrinsically Safe Power Supply.

The following requirements apply to Intrinsic Safety Evaluation No. 18-ISA080006-0:

1. You must build each Model TX6636 Intrinsically Safe Power Supply bearing Intrinsic Safety Evaluation No. 18-ISA080006-0 according to the drawings and specifications on file at our Center. Enclosed is a list of these drawings and specifications.
2. The TX6636 Intrinsically Safe Power Supply shall be conspicuously labeled to indicate the company name "Trolex Limited", the equipment name, and model number, and the MSHA Intrinsic Safety Evaluation No. 18-ISA080006-0.

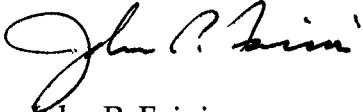


3. You are not permitted to make changes to the design of this Model TX6636 Intrinsically Safe Power Supply, without our approval.
4. We may require you to make changes to the design, or to modify the Model TX6636 Intrinsically Safe Power Supply, in the field, in the interest of safety.
5. We have the right to revoke this Intrinsic Safety Evaluation, for cause, at any time.
6. This letter does not authorize you to advertise the Model TX6636 Intrinsically Safe Power Supply as permissible for use in underground gassy mines or as being approved or certified by the Mine Safety and Health Administration (MSHA). This Model TX6636 Intrinsically Safe Power Supplies must be evaluated and accepted as part of an MSHA approved permissible mining machine.
7. The following requirements apply to the use of this Model TX6636 Intrinsically Safe Power Supply:
  - 7a. The Model TX6636 Intrinsically Safe Power Supplies must be located in an MSHA certified X/P enclosure or located in fresh air.
  - 7b. A suitable enclosure must house the power supply when it is not located in an X/P enclosure.
  - 7c. The Ralux and Finder relay contacts must not switch more than 250 Volts (RMS or AC) or switch more than 100 VA.
  - 7d. Each application of the power supply must receive a separate evaluation by MSHA to verify the intrinsic safety compatibility between the power supply and the connected load.
  - 7e. The maximum connected load capacitance must not exceed 28.90uF with zero or one fault in the externally connected load circuit.
  - 7f. The maximum connected load capacitance must not exceed 120uF with two faults in the externally connected load circuit.

You will receive an invoice for the cost to process your application.

If you have any comments or questions relative to this letter, please contact Wayne M. Colley at 304-547-2067.

Sincerely,

A handwritten signature in cursive script, appearing to read "John P. Faini".

John P. Faini  
Chief, Approval and Certification Center

Enclosures

Data Sheet No. 6  
By: WMColley  
Date: 08-18-08  
Par No: 94176

INVESTIGATION NO. IA-23338

DRAWING LIST

Trolex Ltd  
Model TX6636 Intrinsically Safe Power Supply  
Intrinsic Safety Evaluation No. 18-ISA080006-0

TITLE	Sheet #	Drawing No.	Revision
TX6636 Circuit Diagram/ BOM	1 sheet	P5111.201.01	A
TX6636 General Arrangement	1 sheet	P5111-202-02	A
TX6636 Artwork Ralux relay	3 sheets	P5111.203	A
TX6636 Artwork Finders relay	3 sheets	P5111.206	B
Constant Voltage Transformer	1 sheet	P5111.13	F
Ralux relay	1 sheet	P5111.110	B
Finders relay	1 sheet	P5111-210	A

Factory Inspection Form: See letter from Phil Childs dated 7/24/08.