

April 18, 2007

Proposal No. [REDACTED]

Indiana Michigan Power  
8201 Baer Road  
Fort Wayne, IN 46809

Attention: [REDACTED] Facility Supervisor  
[REDACTED]

In response to your request, we are pleased to submit the following proposal for your review and approval.

When updating machines to meet OSHA and ANSI (American National Standards Institute) standards, there are five basic considerations:

1. Safeguarding
2. Controls
3. Disconnects
4. Starters
5. Covers

The equipment in this proposal complies with current OSHA and applicable ANSI standards and this proposal will offer equipment to help you satisfy these standards.

**According to the information provided, it appears that some of the existing components can be reused to save the cost of replacement. If, however, during the installation you find components that require replacement, please contact Rockford Systems for pricing and availability.**

**SUBJECT: SAFEGUARDING, CONTROLS, AND OTHER SAFETY REQUIREMENTS FOR POWER PRESS BRAKES**

**REFERENCE: ROCKFORD SYSTEMS, INC. LITERATURE:**

CATALOG FAB

See the enclosed *Controls and Safeguarding for Fabricating Machines (FAB)* catalog that has OSHA standards 1910.212 and 1910.219. Also reference the current ANSI B11.3 and NFPA 79 standards.

1) Niagara Model No. IB-65-8-10, Mechanical Press Brake

The following light curtain presence-sensing device can be your point-of-operation safeguard provided it meets the detailed requirements of ANSI B11.3, which includes location at the proper safety distance upon completion of installation.

A stop-time measurement is required for this machine prior to installation to determine the safety distance and to ensure properly sized light curtain mounting brackets (or stands), side barrier guards and auxiliary safeguarding (if required).

**PSD-420**    **20" Point-of-Operation Light Curtain** including transmitter/receiver pair with 1/2" beam spacing, 1" minimum object sensitivity and 100' maximum scanning range, control box with external programming for fixed and float blanking and 20' transmitter/receiver cables (FAB, pp. 50-53)..... **\$ 3,380.00**

**SAB-NA**    **Swing-Away Extruded-Aluminum Light Curtain Mounting Brackets** including nonadjustable 1/2" square black mesh guarding material for the left and right ends of the machine (set of two) (FAB. pp. 67-70)..... **\$ 2,270.00**

**PRS-000-XA Solid-State Clutch/Brake Control Box** that is resolver-based and furnished **without the transformer** in a NEMA 12 enclosure (20" x 20" x 8"). The modular control consists of dual cross-checking microprocessors, dual power supplies, and triple-redundant solenoid relays. It will provide for the selection of off, two-hand inch/timed inch, two-hand and foot single stroke, and hand/hand, hand/foot, and foot/foot sequence stop.

The control module will also include:

1. Control Reliability
2. Light Curtain Interface
3. Time-Based Brake Monitor with warning and fault set points

4. Stop-Time Measurement Test with programmable angle set point
5. Six User-Programmable Static Inputs
6. Two User-Programmable Cyclic Inputs
7. One Auxiliary Output
8. One PLS (Programmable Limit Switch) Output
9. Three 7-Digit Counters (two with presets)
10. RS-232 Serial Port for networking
11. Display of Text in English or Spanish

All operators and the keypad/display will be mounted on the door of the enclosure. A complete sign package, instruction and installation manuals, and electrical diagrams will be included (FAB, pp. 161-167) ..... **\$ 4,220.00**

**NOTE: A control transformer for reducing higher voltage to 115 V is not supplied in the proposed control. If one is needed, please consult factory for part number and price.**

HF

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| <b>CMS-115</b>  | <b>Resolver/Pulser</b> with spring-tensioning base and 40' cable (FAB, pp. 114, 168) .....  | <b>\$ 996.00</b>   |
| <b>CML-000</b>  | <b>Sprocket Assembly</b> (set of two) (FAB, pp. 114, 168) .....   | <b>\$ 62.00</b>    |
| <b>CMS-515</b>  | <b>Roller Chain</b> ANSI No. 35, 10' long (FAB, pp. 114, 168) .....   | <b>\$ 43.00</b>    |
| <b>CTD-062</b>  | <b>Air Pressure Switch</b> for the clutch/brake (FAB, pp. 95, 116, 159, 169) .....  | <b>\$ 198.00</b>   |
| <b>CTL-507</b>  | <b>Palm Button Assembly</b> consisting of two guarded black palm buttons, one red emergency-stop palm button with lockout, and mounting boxes (FAB, pp. 96, 116, 169) <b>(2 Required)</b> ..... | <b>\$ 950.00</b>   |
| <b>LLD-1501</b> | <b>Supervisory Control Station</b> with off/on selector switch and indicator light (FAB, pp. 117, 140, 170) <b>(2 Required)</b> .....   | <b>\$ 596.00</b>   |
| <b>RCL-551</b>  | <b>Monitored Dual-Solenoid Air Valve</b> (1/2") (FAB, p. 158) .....   | <b>\$ 1,190.00</b> |
| <b>CTD-011</b>  | <b>Yellow Foot Switch</b> with front hinged flap and 1 NO and 1 NC contacts (FAB, pp. 97, 117, 139, 159, 170, 248, 250) <b>(2 Required)</b> .....   | <b>\$ 990.00</b>   |

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| <b>RCL-004</b> | <b><i>Pull-Type Air Cylinder Assembly</i></b> —2½" bore x 2" stroke<br>(300-lb pull) (FAB, pp. 100, 172) ..... | <b>\$ 560.00</b> |
| <b>RCL-044</b> | <b><i>Filter-Regulator-Lubricator Assembly</i></b> (½")<br>(FAB, pp. 115, 158, 169) .....                      | <b>\$ 215.00</b> |

A lockout valve is required for this machine to comply with OSHA 1910.147; therefore,  
the following is being proposed:

|                |   |                 |
|----------------|---|-----------------|
| <b>RCD-113</b> | <b><i>Air Lockout Valve</i></b> (½"), 3-way slide operated, capable of<br>being locked in the off position (FAB, pp. 119) ..... | <b>\$ 78.00</b> |
|----------------|---|-----------------|

**TOTAL PRICE OF PROPOSED EQUIPMENT FOR THIS MACHINE .....** \$ 15,748.00

**INSTALLATION OF THE PREVIOUSLY QUOTED EQUIPMENT AND  
MISCELLANEOUS MATERIALS .....** \$ 4,000.00