REV.	DESCRIPTION	DRAWN / APPD.	DATE

THIS IS TO OUTLINE THE OPERATING PROCEDURES FOR THE SUPERCONDUCTING CABLE LUMP DETECTORS MACHINE THAT IS INCLUDED IN THE OPERATION OF THE CABLE INSULATING MACHINE.

A. NORMAL START-UP PROCEDURES
   ONCE CABLE HAS BEEN POSITIONED IN THE LUMP DETECTORS, PERFORM THE FOLLOWING:
   1. TURN POWER SWITCH TO ON.
   2. ADJUST WIDTH ROLLERS TO THE CABLE.
   3. USE A .005" SHIM TO CHECK SETTING. MONITOR LIGHT/ALARM SHOULD ACTIVATE TO SHOW OUT OF TOLERANCE CONDITION.
   4. ADJUST THICKNESS ROLLERS TO THE CABLE.
   5. ADJUST ANGLE OF THICKNESS ROLLERS USING THE LUMP DETECTOR MICROMETER.
   6. USE A .005" SHIM TO CHECK SETTING. MONITOR LIGHT/ALARM SHOULD ACTIVATE TO SHOW OUT OF TOLERANCE CONDITION.
   7. REPEAT THE ABOVE FOR EACH LUMP DETECTOR BEING USED.

B. NORMAL SHUTDOWN PROCEDURE
   1. TURN POWER SWITCH TO OFF.

C. EMERGENCY SHUTDOWN PROCEDURES
   ANY OF THE FOLLOWING THREE ARE ACCEPTABLE:
   1. TURN POWER SWITCH TO OFF.
   2. UNPLUG THE POWER.
   3. DISCONNECT POWER AT ELECTRICAL DISTRIBUTION CABINET P.P.-1B-VII-1A, CIRCUIT #40. THE DISTRIBUTION PANEL IS LOCATED IN INDUSTRIAL BUILDING #3, ON THE WEST WALL, BUILDING CENTER.

D. LOCK-OUT AND TAG PROCEDURES
   1. ELECTRICAL DISTRIBUTION PANEL IS LOCATED ON INDUSTRIAL BUILDING #3 WEST WALL, BUILDING CENTER, PANEL P.P.-1B-VII-1A, CIRCUIT #40. USE FERMILAB ES&H APPROVED LOCK-OUT AND TAG PROCEDURES AS SPECIFIED IN CHAPTER #5120 OF THE FERMILAB ES&H MANUAL.

E. SAFETY
   1. ALL LUMP DETECTORS WILL BE PROPERLY SHIELDED TO PREVENT INJURY. ALL MOVING EQUIPMENT/PRODUCT WILL BE PROPERLY SHIELDED TO PREVENT INJURY. ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHES AND WIRES WILL BE SHIELDED TO PREVENT ELECTRICAL SHOCK. ALL SHIELDS, AFTER MACHINE SET-UP, WILL BE IN PLACE DURING OPERATION TO PREVENT INJURY.

F. SPECIAL PRECAUTIONS
   1. CHECKS SHALL BE PREFORMED DURING CABLE INSULATING TO ENSURE LUMP DETECTORS ARE OPERATING CORRECTLY AND WITHIN ACCEPTABLE TOLERANCES.
   2. WHEN CHECKING INSULATED CABLE WITHIN A LUMP DETECTOR, CARE SHALL BE EXERCISED TO PREVENT DAMAGE TO THE INSULATED CABLE.

G. TRAINING
   1. ALL PERSONNEL WILL RECEIVE DOCUMENTED TRAINING FROM EITHER THE CABLE SUPERVISOR, CREW CHIEF OR THE LEAD CABLE MACHINE OPERATOR. THIS TRAINING WILL INCLUDE PROPER START-UP ADN SHUTDOWN PROCEDURES, REVIEW OF MATERIAL SAFETY DATA SHEETS OF MATERIAL USED IN CABLE INSULATING AND OTHER PERTINENT SAFETY CONCERNS.

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	R. JENSEN	
.XX	.XXX	ANGLES	DRAWN	NWBARTLETT	4/23/92
±	±	±	CHECKED		4/28/92
1. BREAK ALL SHARP EDGES .02 MAX.			APPROVED	R.R.J. Simpson	4/29/92
2. DO NOT SCALE DRAWING.			USED ON		
3. DIMENSIONS BASED UPON ANSI Y14.5M-1982					
4. MAX. ALL MACH. SURFACES √			MATERIAL		

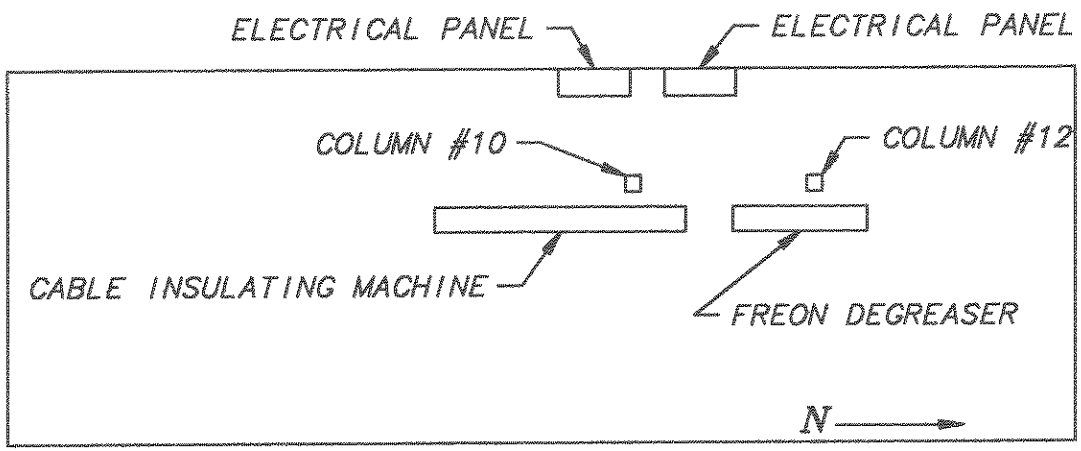
FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

CABLE INSULATING MACHINE LUMP DETECTORS OPERATING PROCEDURE

SCALE	DRAWING NUMBER	SHEET	REV.
	0102-ES-301864	1 of 2	

CREATED WITH I-DEAS 5.0 | USER NAME: Nancy2

REV.	DESCRIPTION	DRAWN / APPD.	DATE



INDUSTRIAL BUILDING #3

UNLESS OTHERWISE SPECIFIED	ORIGINATOR	R. JENSEN	
.XX ± / .XXX ± / ANGLES ±	DRAWN	NWBARTLETT	4/23/92
	CHECKED		4/29/92
1. BREAK ALL SHARP EDGES .02 MAX.	APPROVED		7/29/92
2. DO NOT SCALE DRAWING.	USED ON		
3. DIMENSIONS BASED UPON ANSI Y14.5M-1982			
4. MAX. ALL MACH. SURFACES	MATERIAL		

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

CABLE INSULATING MACHINE LUMP DETECTORS OPERATING PROCEDURE

SCALE	DRAWING NUMBER	SHEET	REV.
	0102-ES-301864	2 of 2	

CREATED WITH I-DEAS 5.0 | USER NAME: NancyB