



IDENTIFICATION			
STD 823X			
LIGO-8950045-02-B			
REFERENCE NO.		SHT 1 OF 1	
930212			
OFFICE		REVISION	
RCE		2	
MADE BY	CHKD BY	MADE BY	CHKD BY
WLR	BGG	WLR	RAJ
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TITLE	STORAGE AND CARE OF WELDING CONSUMABLES
PRODUCT	LIGO BEAM TUBE MODULES QUALIFICATION TEST CALIFORNIA INSTITUTE OF TECHNOLOGY

1.0 Scope

This instruction describes the storage and care of welding consumables used for the LIGO Project.

2.0 REFERENCE

2.1 CBI Standard 823

3.0 APPLICABLE SECTIONS OF CBI STANDARD 823

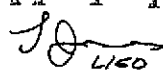

3.1.0 STORAGE: Store unopened electrode and solid coiled or spooled wire in a dry place, preferably on cribbing and a few inches away from any walls, to allow free circulation of air under and around the stacks.

Types of Consumables	Restoration of Punctured Containers	Usage	(4) Storage Of Consumables From Undamaged Containers	Maximum Exposure Time to the Environment	(4) Restoration of Consumables Exposed To The Environment	(5) Disposition of Consumables
LOW HYDROGEN (LOW STRENGTH) STAINLESS & NICKEL TYPE ELECTRODES E7018/E8018 E9018M E3XX(SS) ENiXX(Nickel)	App. 500°F (260°C) for app. 12 Hours	Direct from unopened cans or oven	250°F min. (121°C min.)	10 Hours	250°F min. (121°C min.) for approximately 8 Hours (1)	Discard
SOLID STRAIGHT LENGTH WIRE (ROD FORM)	None (must be dry)	Direct from containers	Dry	No max.	None	May be dried if clean
SOLID SPOOLED WIRE	None (must be sealed)	Direct from containers (6)	Dry	No max.	None (7)	Discard
CELLULOSE TYPE ELECTRODES E6010/E7010 E6012/E7024	None	Direct from containers	Dry; Do not put in heated ovens!!	No max.	None	Discard

NOTES:

- (1) When there is no power available overnight, an acceptable alternate to the 8 hours at 250°F (121°C) is as follows:
  1. Have rod oven set at maximum (400°F - 500°F) (204°C - 260°C)
  2. Put unused electrode in hot oven.
  3. Allow ½ to 1 hour to stabilize temperature in oven before power is turned off.
  4. Check electrode in the morning to assure it is warmer than the ambient temperature.
- (4) Temperatures are to be checked with temperature indicating crayons. Do not rely on the oven gages.
- (5) Solid Spooled Wire: Exposure to the environment sufficient to require discarding the spooled wire is when the bag or wrapper become damaged or when the spooled wire is handled with soiled gloves or bare hands.  
Covered Electrode: Exposure to the environment sufficient to require discarding the electrodes is when they get so wet the coating is damaged or when there are obvious rust deposits on the electrode.
- (6) Clean cloth gloves must be worn when handling.
- (7) Bagged and sealed from the environment for storage.

**APPROVED**

 11/10/95  
 11/10/95