



ADMINISTRATIVE PROCEDURE

SAFETY MEASURES REGARDING BROKEN MERCURY LAMPS

2804.1

Procedure No.

January 13, 1975

Date

- I. **PURPOSE:** To call to your attention the potential dangers of operating mercury lamps with broken or cracked external glass envelope and to advise procedures to be followed when this condition is discovered.
- II. **INFORMATION:** The Interagency Committee for State Public School Construction has advised that there is a potential danger arising from the use of mercury vapor lamps which have been damaged in a certain way. Should any object enter the light fixture in a manner so as to break the glass envelope with the phosphor coatings but not break the quartz tube, the lamp will remain lighted and produce illumination. However, the light spectrum will change drastically. The arc discharge produces ultra-violet illumination conducted by the quartz to activate the phosphor coating on the glass which emits light. When intact, the glass envelope attenuates most of the ultra-violet light to safe levels for normal use. However, if the external glass envelope is broken there is no attenuation of the ultra-violet light and a large dosage can be emitted in beam patterns or otherwise. Continual exposure to the direct rays could be very dangerous, even to temporary loss of sight.
- III. **PROCEDURES:** Upon receipt of this procedure, have your building supervisor inspect all mercury vapor lights in your building. If damaged lamps are found, or in all future cases of damage, proceed as follows:
 - A. Immediately remove any damaged lamp or, if that is not immediately possible, turn off the lamp circuit and clearly placard the circuit with a warning that it is not to be reactivated until replacement can be made.
 - B. Report the problem to the Department of Plant Operations, 627-4717, and request any assistance necessary to remove the lamp and make replacement.
 - C. Under no circumstances, operate a damaged lamp.
 - D. Make frequent inspections of these lamps a part of your building supervisor's routine responsibilities.
- IV. **RELATED PROCEDURES:** There are no existing related procedures.
- V. **MAINTENANCE AND UPDATE OF THESE PROCEDURES:** These procedures originate with the Safety Office.
- VI. **CANCELLATIONS AND SUPERSEDURES:** These procedures are new.
- IX. **EFFECTIVE DATE:** Immediately.



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Approved by:
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Superintendent of Schools