



Inspection and Testing of Safety Systems		
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## **Inspection and Testing of Safety Systems**

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### **Introduction – Purpose of procedure**

The purpose of this procedure is to provide regular inspection and testing of the fire alarm system and detectors, fire extinguishing equipment, integrity of external safety barriers, RCBO circuit breakers, and emergency lighting.

P.A.T. tests will be conducted on all appropriate equipment at least once every five years

P.A.T. tests will be conducted on all appropriate external equipment at least once every year

### **Method**

#### **General**

1. Only trained members will be allowed to carry out the tests described. Training will be provided by the Observatory Director or other appropriately qualified and approved member, and recorded in Appendix **A** Training Log.
2. Frequency of testing will be as set out in the appropriate appendix and also in Appendix **I** Maintenance Reference, which will be displayed in the Workshop. It is the responsibility of the Observatory Director to ensure the testing is carried out at the required frequency, either by performing the tests themselves or by asking another appropriately qualified and approved member.
3. Inspections/Tests will be recorded on the appropriate appendix attached to this procedure and located adjacent to the fire alarm control box.
4. All faults will be noted on the appropriate appendix, and the Observatory Director or their deputy will be informed as soon as reasonably practicable.
5. Once an inspection/test has been completed this will be recorded on Appendix **I** Maintenance Reference.
6. The relevant inspection/test appendices will be reviewed at every committee meeting.



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## **Fire Alarm System – Appendix B**

Detectors/call points are located as follows :- Zone 1 – Dome; Zone 2 – Lecture Room; Zone 3 – Hall, Kitchen, Office, Under Stairs; Zone 4 – Entrance, Workshop. All are Smoke detectors except Kitchen (Heat detector) and Entrance (Break Glass call point).

1. Activate detector/call point as appropriate:-  
Smoke – Spray the appropriate smoke testing canister around the detector. The smoke testing canisters will be stored in the Workshop cupboard.  
Heat – Use a hairdryer to blow heated air towards the detector. The hairdryer will be stored in the drawers in the Optics Store.  
Break Glass – Using the appropriate test key, insert into the fire alarm call point. The test key will be stored in the Treasurer's cupboard in the Office.
2. Check that the detector/call point has been activated and the alarm sounds.
3. Check that the red lights and sirens are working in all areas. These are:- Lecture Room, Hallway and Dome.
4. Check control box has recorded the correct activation, then acknowledge and silence the alarm by keying in the relevant code.
5. Allow detector/call point to reset as appropriate:-  
Smoke – Allow smoke to clear from the detector.  
Heat – Allow time for air around detector to cool.  
Break Glass – Remove test key.
6. Reset alarm by keying in relevant code at control box.

In addition, a Battery Condition test and a Supply Failed Operation Integrity test will be conducted by the Observatory Director or other appropriately qualified and approved member at least once every year.

## **Fire Extinguishers – Appendix C**

Fire extinguishers are located in the Lecture Room, the Entrance, the Hall and the Dome.

1. Ensure the correct extinguishers are in the correct place.
2. Ensure that the extinguishers are accessible and are not blocked or damaged.
3. For Contract extinguishers, ensure that the test date on the extinguisher is compliant and relevant. For Non Contract extinguishers, check the pressure indicator is within appropriate limits.

In addition, contract extinguishers will be checked and serviced by an external Fire Safety company at least once every year.



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### **External Barrier Integrity – Appendix D**

Areas to be checked are :- Telescope Pad, Observatory, Car Park, Reservoir.

1. Visual inspection of all barriers.
2. Ensure all connections are sound and the barrier is undamaged.
3. Ensure Drop warning signs (where appropriate) are clean and intact.

### **Circuit Breakers – Appendix E, F or G**

**Prior to checking the circuit breakers all electrical equipment that is sensitive to sudden power shut off MUST be safely shut down prior to any test commencing.**

The RCBO circuit breakers are located in several distribution boards in three boxes :- Box 1 is in the Lecture Room, Box 2 is in the Office and Box 4 is in the Workshop. All breakers are appropriately labelled.

1. Depress the dark grey/black switch adjacent to the circuit breaker. The breaker will automatically flick to the OFF position.
2. Reset the RCBO by moving the breaker back to the ON position.

### **Emergency Lighting / Running Man – Appendix H**

Areas to be checked are :- Office switch – lights at Office and Kitchen; Lecture Room switch – lights at Lecture Room and Lecture Room Exit; Workshop Entrance switch – lights at Entrance Ramp, Exit Door, Inner Exit Door, Optics Store, Toilet and Hallway; Top of Dome Stairs switch – lights at Control Panel, Aperture, Top of Stairs and Bottom of Stairs.

1. Check each emergency light has power supply indicator illuminated (green or red led).
2. With the appropriate test key, switch on the emergency lighting for each area, some areas have a green neon indicator. Once the switch has been activated check that all the emergency lights for that area have been activated. The test keys will be stored in the Treasurer's cupboard in the Office.
3. Reset the emergency lighting by turning off the test key switch.
4. Check power supply has been restored by checking indicator on each emergency light has re-illuminated.

Approved By \_\_\_\_\_ The Committee      Issued By \_\_\_\_\_ Observatory Director