

## TERI School of advanced Studies Policy on Health, Safety and Environment

### **Preamble**

1. Care for the safety and welfare of the employees is an important requirement of any organization. TERI School of advanced Studies has an overriding commitment to health, safety, environmental responsibility and sustainable development. It, therefore, takes appropriate measures to deliver value in these terms across all its facets.

2. As with any other aspect, health, safety and maintenance of environment don't just happen. To be effective, they must be planned and managed. Working conditions, activities, equipment, people, products and services have all been considered as potential sources of risk and arrangements have been put in place to identify the hazards and reduce risks to levels that are considered to be reasonably practicable. Thus TERI School of advanced Studies has set a clear direction for achieving compliance with health, safety and environment laws and created an ongoing culture of continuous improvement. For achieving its goal, TERI School of advanced Studies has the positive involvement of all levels of management, and the active participation and support of its employees.

### **AIM**

3. The aim of this document is to lay down TERI School of advanced Studies's policy for Occupational Health and Safety Assessment Standards(OHSAS) of T U Community as well as the impact of University activities on the environment and the procedure to be followed for their compliance.

### **SCOPE**

4. This policy manual pertains to the TERI School of advanced Studies, Vasant Kunj, New Delhi.

### **Definition of Health, Safety and Environment POLICY STATEMENT**

5. Effective health, safety and environment policy serves to demonstrate T U commitment towards eliminating work and product related accidents, injuries & health effects and limit the impact of our activities on the environment.

Environmental stewardship and employee safety & health are crucial success factors. We believe that achieving these is necessary for the long-term viability of T U. Therefore, we have established the following long-term strategic OHSAS goals to guide our activities:

- Create sensitivity and awareness towards Health, Safety and environment matters.
- Establish commitment to care for the health, safety and welfare of everyone who is impacted by UNIVERSITY's activities
- Demonstrate our commitments by incorporating OHSAS principles in our work practices and day-to-day lives.

- Determine, evaluate and monitor work place factors affecting the environment, safety and health of the employees.
- Support the development of responsible, technically & scientifically valid, and cost effective health, safety and environment laws, regulations and standards
- Comply with all applicable laws, regulations and standards and practices governing OHSAS
- Engage and educate employees to implement this policy and encourage them to further contribute to the achievement of our OHSAS goals
- Demonstrate commitment to continuously improve our OHSAS performance by setting objectives and targets
- Establish audit procedures to monitor the implementation of this Policy.

6. In line with these goals, TERI SCHOOL OF ADVANCED STUDIES has developed a framework for OHSAS management system that helps in implementation of this policy. Procedures and programs have been adopted to provide a safe working environment. OHSAS goals have also been integrated into the decision making model and adequate resources have been allocated to fulfil this commitment of the policy.

7. Throughout the University our employees are committed and involved in the OHSAS effort that promotes improvement in their performance.

## **HEALTH**

### **Risk Assessment**

**8. Affected Segments:** TERI SCHOOL OF ADVANCED STUDIES Employees, Students, Visitors

**9. Causes:** Health of TERI SCHOOL OF ADVANCED STUDIES employees could be affected due to the following reasons:

- a) Exposure to poisonous/ hazardous chemicals and other material
- b) Injuries due to accident
- c) Existing or acquired disease
- d) Consumption of spurious food and beverages
- e) Neglect or delay in treatment of minor injuries/ ailments
- f) Unhygienic and unclean environment

**10. Effects:** Ill health would have the following effects:

- a) Disruption in normal functioning due to absence of employees
- b) Lower working efficiency
- c) Low staff morale
- d) Risk to the health of other employees and visitors
- e) Higher medical expenditure

## **Preventive Measures**

**11.** TERI SCHOOL OF ADVANCED STUDIES depends mainly on the vast human resources for its performance. Health of T U Community therefore, is an essential consideration for increasing UNIVERSITY's output. It is important to take all measures to prevent health hazards and enable a healthy workforce. Prevention is better than cure. Occupational health management is far more than a medical issue. It primarily looks into managing exposures that can lead to ill health caused by work, or even looking for its early signs.

**12.** The following steps are being taken to maintain good health within UNIVERSITY.

- a) Pre-employment health assessment
- b) Regular health surveillance by specialists
- c) Periodic fumigation of working space
- d) Use of safety measures during handling and disposal of hazardous and poisonous chemicals and other material. The concerned staff is regularly trained for this.
- e) Maintaining the infrastructure and equipment through AMC to prevent accidents
- f) Create health awareness among all employees through periodic talks and discussions
- g) Provision of purified drinking water
- h) Allow food and beverages only from hygienic and highly reliable sources
- i) Training selected staff in administration of first aid
- j) Maintaining medical history of chronic patients
- k) Invited talks on preventable diseases, stress management, etc.
- l) Visitors are normally not allowed to go to the work areas.
- m) Maintain utmost cleanliness and hygienic conditions in workspace

## **Remedial Actions**

**13.** In spite of all the precautionary measures, diseases and bad health occurrences cannot be ruled out. The following remedial actions are taken to mitigate the impact of ill health.

- a) **Provision of First Aid:** The first aid box is maintained on ground floor. This would normally be administered by the staff trained on first aid. However, in their absence, anyone else may do so. Guidelines on first aid measures are given in **Annexure A**.
- b) **Medical Consultation:** For urgent medical consultation during working hours, a doctor is available free of charge under arrangements of TERI SCHOOL OF ADVANCED STUDIES.
- c) **Vehicle:** For any emergency UNIVERSITY vehicle is provided for evacuation of the patient to the hospital. All other help as required is also provided.
- d) **Medical Insurance:** All TERI SCHOOL OF ADVANCED STUDIES employees and their families are insured by the Institute for meeting hospitalization and out-patient treatment expenses
- e) **MERT:** For meeting the immediate expenses towards medical treatment, purchase of medicines and for disease preventive measures such as vaccinations, a special reimbursement package is being provided to all TERI UNIVERSITY employees

### **Corrective Actions**

**14.** All incidents of ill health are recorded and periodically analyzed for identifying the required corrective actions. Employee health and associated occupational illness remain the key focus areas

## **SAFETY**

### **Risk Assessment**

**15. Affected segments:** TERI SCHOOL OF ADVANCED STUDIES employees, Students, Visitors, computer hardware & software, laboratory equipment, chemicals & consumables, buildings including fixtures, furniture, & infrastructure, documents and records, library books, stores, etc.

**16. Causes:** In today's fast-paced world, the issue of safety has become a key concern among people. However, it is one aspect that most individuals pay the least attention to. This is because we always believe that "bad" things happen only to other people. However, we are constantly exposed to dangers and occupational hazards which could affect the safety of personal and material. Causes for safety hazards within TERI are given below:

- a) **Fire:** This could result from electrical short circuit, chemical reactions & spillage of flammable solvents, malfunctioning of hot equipment such as ovens, naked flame, etc.
- b) **Accident:** Due to the fall of personnel, equipment or other material
- c) **Exposure to chemicals:** Due to working with hazardous chemicals without adequate protection
- d) **Fumes:** Caused by chemical reactions and leakages
- e) **Electrocution:** Due to failure of electrical wire insulation, use of damaged electrical equipment, failure of earthing circuits, voltage spikes, etc.
- f) **Earthquake:** New Delhi falls under Seismological Zone IV, which is a high risk zone.
- g) **Lightning:** This is more prevalent during the monsoon season.

**17. Effects:** The effects would vary vastly based on the nature of the hazard. The following effects could occur:

- a) **Fire:** Depending upon the source and location of the fire, it could result in burn injuries, smoke asphyxia and secondary injuries to personnel. This could also result in damage or destruction of equipment, documents, books, material, stores and buildings. If not controlled immediately, fire can spread fast and cause a disaster.
- b) **Accident:** These could incapacitate personnel due to bodily injuries. Equipment and instruments may also be damaged
- c) **Exposure to chemicals:** Can result in skin rashes, blisters, acid burns, etc. Radioactive material could cause dangerous radiation levels.
- d) **Fumes:** Inhalation of toxic fumes could result in fatal injuries, suffocation, burning sensation in eyes, etc.
- e) **Electrocution:** Results in shock and severe exposure can cause paralysis/ death. IT equipment and sensitive instruments may be damaged resulting in data loss and communication breakdown.
- f) **Earthquake:** This can cause large scale destruction to buildings resulting in loss to life, injuries, damages to equipment, instruments, etc.
- g) **Lightening:** Results in fire and electrical discharge.

## **Preventive Measures**

**18:** Prevention is better than cure. This is most relevant in the context of human and material safety. Adequate preventive actions can save a lot in both tangible and non-tangible terms.

**19:** The following measures are being taken for the safety of personnel and material:

- a) **Automatic Fire Detection and Alarm system:** This system installed in TERI UNIVERSITY has sensitive smoke/ heat detectors which are connected to the Fire Alarm panel located on the ground floor of Admin Block. Fire Detection and Alarm Systems are given in **Annexure B**
- b) **Fire Fighting Equipment:** Adequate fire- fighting equipments to include fire hydrant systems and fire extinguishers have been installed at appropriate locations in TERI SCHOOL OF ADVANCED STUDIES. Details of the Alarm Systems and Fire- Fighting equipment are given in **Annexure C**
- c) **Training in Fire-Fighting Drills:** The Fire department periodically conducts fire-fighting practice in University Campus in which all employees of TERI SCHOOL OF ADVANCED STUDIES actively participate. Training in Fire – fighting Drills is given in **Annexure D**
- d) The doors of all rooms housing electrical distribution panels and the generator rooms have been painted with fire resistant paint.
- e) **Maintenance of Equipment:** All equipment is regularly inspected by the AMC agency and the lab supervisors. Particular care is taken for checking the functioning of controlling devices such as thermostats, gas container valves, electrical tripping devices, etc.
- f) **Laboratory Safety Measures:** Laboratories can be a major source of threat to the safety of personnel as well as material if proper precautions are not taken. It is, therefore, essential that adequate guidelines are laid down and enforced for the handling, storage and disposal of chemicals and laboratory-ware. A detailed Laboratory safety manual has been prepared and is available in TERI SCHOOL OF ADVANCED STUDIES intranet. However the important precautionary measures taken are listed below:
- i) **Fume Hoods:** Adequate fume hoods are provided for removal of toxic fumes and vapors.
  - ii) **Protective Equipment:** Suitable aprons, gloves, trays, etc. are provided for working with chemicals.
  - iii) **Safety Data Sheets:** These sheets provide data pertaining to hazard identification, first-aid measures, accidental release measures, exposure controls, personal protection and precautions during handling and storage of chemicals, etc. The safety Data sheets for all chemicals being used in the laboratories have been compiled and placed in the laboratories for ready reference during any emergency.
  - iv) **Safety Instructions:** Safety instructions for handling and use of chemicals, glassware, gases and radioactive material have been defined. Users are being trained and made aware to adhere to these instructions.
  - v) **Electrical Equipment:** Adequate safety precautions are taken to safeguard against electrical problems and dangers.

- vi) **Cleanliness:** The laboratory working area is well maintained and kept neat and clean to prevent accidents.
- g) **Maintenance of buildings and infrastructure:** To prevent accidents, the building structures and infrastructure are constantly inspected and properly maintained.
- h) **Backups:** All important documents, files and records have been identified. Their soft copies are backed-up on the server and CD's at fixed periodicity and retained in safe custody.
- i) **Formation of Recovery teams:** A number of teams have been created for recovery during major disasters. The organization, roles and responsibilities of these teams are defined in the Disaster management manual. These teams are:
  - i) Safety and Rescue team
  - ii) Document and Data Recovery team
  - iii) Building and Facilities team
  - iv) Salvage and Asset Recovery team
- j) **Insurance:** All buildings, laboratory equipment, computer hardware, stores and vehicles are appropriately insured. All the documents required by the insurance company for preferring the claims have been safely stored in bank lockers.

## **Remedial Actions**

**20.** The following remedial actions are carried out to mitigate the effects of safety hazards:

- a) **Rescue and Relief:** The effected personnel are first rescued from the danger areas to safe locations. Thereafter, appropriate treatment is provided by administrating first aid or evacuating to the hospitals, as required.

- b) **Salvage:** Effected equipment, documents, stores and other material will be salvaged as per predetermined priority list and brought to a safe location.
- c) **Assessment of Damage:** The damage caused due to the safety hazard will be assessed in conjunction with the insurance agency. Thereafter claims would be preferred with the insurance agency.
- d) **Restoration and Recovery:** A planned restoration of the damaged equipment and assets will be carried out. Wherever required replacement items will be procured so that the original functionality is restored.

## **Corrective Actions**

**21.** After any major incident, a detailed investigation will be conducted to determine the cause. If the building is likely to be damaged due to the incident, then a structural survey should also be conducted. Based on this investigation, corrective actions would be immediately carried out to prevent repetition of similar incidents.

**22.** All minor incidents are being recorded on occurrence. At the end of each financial year, these incidents are analyzed to determine the corrective actions which are required to be taken. Based on this the necessary actions to prevent/ minimize such incidents are put in place. Measures are taken to promote and reinforce responsibilities and a general safety conscious culture.

## **ENVIRONMENT**

### **Risk Assessment**



**23. Affected segments:** TERI SCHOOL OF ADVANCED STUDIES employees, Students, Visitors, Personnel in neighboring buildings and offices in immediate vicinity

**24. Causes:** Environment can be adversely effected by a number of agents. The possible causes that can emanate from TERI SCHOOL OF ADVANCED STUDIES are given below:

- a) Air pollution due to smoke, gases, vapours and solid particles
- b) Waste water
- c) Used chemicals
- d) Solid waste material
- e) Biological leakages

**25. Effects:** The environment pollutants can result in harmful effects in human beings, which could, in extreme cases of toxicity, also result in fatal damages. Non-poisonous and harmless waste material can also result in destroying the natural beauty of the surrounding areas.

### **Preventive Measures**

**26.** TERI SCHOOL OF ADVANCED STUDIES is located in the posh environment of Vasant Kunj, New Delhi. This Institutional Area houses some of the most renowned organizations both national as well as international. Such unique location is associated with the excellence of local human resources and the harmonious lifestyle. It is, therefore essential to take all precautions and prevent any damage to the environment. The steps being taken by TERI SCHOOL OF ADVANCED STUDIES towards this end are given below:

- a) **Laboratory Emissions:** All polluting gases, vapours, solid particles, etc. are released only through fume hoods so that they escape into the higher regions of the atmosphere and do not affect the existing habitation.
- b) **Air Monitoring:** The air in the vicinity of University Campus is being regularly monitored by TERI SCHOOL OF ADVANCED STUDIES for impurities and suspended solid particles.
- c) **Storage of Waste Chemicals:** Waste chemicals stored in containers are being labeled prominently. Bottles containing hazardous waste have Red labels marked "hazardous waste". The waste containers are properly segregated such that incompatible bottles of wastes are stored in separately, preferably as far apart as possible.
- d) **Disposal of Waste Chemicals:** If chemicals are disposed by pouring into the sink, they are first diluted.
- e) **Waste management:** All chemical waste is being disposed off under arrangements of the Materials manager after observing all the safety precautions.

- f) **Biological Experiments:** All experiments involving use of bacteria/ viruses are performed under highly controlled conditions.
- g) **Solid Waste:** These are collected daily and disposed off.

### **Remedial Actions**

**27.** Adequate precautions have been taken by TERI SCHOOL OF ADVANCED STUDIES to prevent contamination of the environment due to any of its activity. However, due to malfunctioning of any system, pollution of the environment does take place; the following remedial actions are taken to mitigate the ill effects:

- a) If smoke, fumes or gases leak out of the exhaust system into the buildings, the following actions are taken:
  - h) All personnel are advised to get out of the building and assemble in the open area
  - ii) The air-conditioning system is shut off to prevent spread of the pollutants to other areas and buildings by entering the ducts
  - iii) All windows and doors are opened for ventilation
  - iv) The concerned laboratory in-charge along with administrative staff locates the source of the pollutant and rectifies the system
- b) If any container of chemicals or waste chemicals spills, action for neutralizing the effects of this should be as per the Safety data sheet of that chemical. This should only be handled by the competent staffs who know about the specific chemicals. Any wrong action can further aggravate the problem
- c) First aid should be administered to the effected personnel, who should thereafter be evacuated to the nearest hospital for further examination and treatment.

### **Corrective Actions**

**28.** After any incident, an investigation will be conducted to determine the cause and preventive measures. Based on this investigation, corrective actions would be immediately initiated to prevent recurrence of similar incidents.

### **COMMUNICATION**

**29.** Communication is a vital factor, enabling people in the organisation to be aware of their responsibilities, aware of the objectives of the scheme so that they are able to contribute to its success. It also stimulates everyone's interest in the importance and benefits of health and safety.

**30.** Suitable communication channels already exist in TERI SCHOOL OF ADVANCED STUDIES. These have been extended to include health, safety and environment aspects also. The following steps have been taken to effectively communicate with all the employees of TERI SCHOOL OF ADVANCED STUDIES:

- a) **Policy Manual:** The policy manual has been placed on the intranet and is available to everyone for reference
- b) **Awareness Campaign:** All Research Professionals / Faculties are made aware of the importance of the salient aspects during meetings at least once a year.
- c) **Laboratory Training:** Special training sessions are conducted for the research professionals and Students working in the laboratories to educate them on laboratory safety.
- d) **Induction Training:** All newly inducted professionals and Fresh Students are apprised about the OHSAS policy during the induction training.
- e) **Dedicated Notice Board:** A dedicated health and safety notice board has been installed in a prominent location on floor. It contains the OHSAS Policy Statement duly signed by the Vice Chancellor. It also has details of important addresses and contact numbers such as hospitals, ambulance, blood bank, police, etc.
- f) All important emergency contact numbers are prominently displayed at the reception and noticeboards.

## **REPORTING AND DOCUMENTATION**

### **Documentation Control**

**31.** All matters pertaining to Health, Safety & Environment will be handled and controlled by the Registrar. He would ensure that proper records are maintained of all incidents indicating the actions taken against each.

### **Reporting**

**32.** The following incidents will be reported to the Health, Safety & Environment officer:

- a) Accidents or other incidents requiring first-aid treatment/ hospitalisation
- b) All cases of fire
- c) Uncontrolled leakage of toxic gases, fumes or vapours
- d) Spillage of chemicals, radioactive material or other hazardous material
- e) Incidents which have resulted in an adverse effect upon the health of employees.  
Examples of this include dermatitis, irritation of the respiratory system, skin and eyes, sensitisation to chemicals and muscular - skeletal disorders.
- f) Electric shocks
- g) Damage to equipment or instruments
- h) Structural damage to buildings or infrastructure

## **REVIEW**

**31.** It is essential to periodically review the Health and Safety Policy to ensure that it continues to be up to date and relevant. Regularly reviewing also helps to keep it alive and provides opportunities to reinforce the importance of health, safety and environment for everyone in the organization.

**32.** This review of the policy manual is being carried out once a year at the end of the financial year. During this review the effectiveness of the procedures and measures already in place for controlling risks to Health, Safety and environment are examined and changes made where required. Analysis of the records pertaining to the last one year is also carried out to determine corrective actions that may be required.

**33.** The management review is the ideal forum to make decisions on how to improve our systems for the future.

## **CONCLUSION**

**34.** One of TERI SCHOOL OF ADVANCED STUDIES's great strengths is the commitment of all the employees continuously look for ways to improve all aspects of our business. Looking ahead, we aim to continue improving our OHSAS performance, working together for a sustainable future for the benefit of all stakeholders as well as Students.

## **FIRST AID**

1. First aid is the initial assistance or treatment given to a casualty for any injury before the arrival of a doctor /other qualified person or before the evacuation to hospital. The aim of first aid is to

- (a) Preserve life
- (b) Prevent the condition worsening.
- (c) Promote recovery.

2. A list of the common injuries that can be sustained while working in the laboratory and the first measures are given below

## **LIST OF COMMON INJURIES AND FIRST AID MEASURES**

### **Burns:**

#### **First Degree**

- (a) **Signs /Symptoms:** Reddened Skin
- (b) **Treatment:** Immerse quickly in cold water or apply ice until pain stops

#### **Second Degree**

- (a) **Signs /Symptoms:** Reddened skin blisters
- (b) **Treatment:**
  - (1) Cut away loose clothing
  - (2) Cover with several layers of cold moist dressings or if limb is involved immerse in cold water for relief of pain
  - (3) Treat for shock

#### **Third degree**

- (a) **Signs/Symptoms:** Skin destroyed, tissues damaged, charring
- (b) **Treatment:**
  - (1) Cut away loose clothing (do not remove clothing adhered to skin)
  - (2) Cover with several layers of sterile, cold, moist dressings for relief of pain and to stop burning action
  - (3) Treat for shock

## **Chemical Burns**

### **Acid Burns:**

- (a) Immediately wash with plenty of plain water
- (b) If soda bi carb (baking powder) is available, make its solution (two tea spoons in half litre of water) and wash affected area
- (c) Again wash thoroughly for at least twenty minutes
- (d) Remove victim's clothing because chemical may be retained

### **Alkali Burns:**

- (a) Wash with plenty of water
- (b) Then wash with a weak solution of Vinegar in water
- (c) Again wash thoroughly with water for at least twenty minutes

### **General care for all burns:**

- (a) Separate any burned areas that might come in with each other when bandaging (fingers, toes, ear and head)
- (b) Do not break blisters
- (c) Do not use ointments
- (d) Get medical attention as soon as possible
- (e) **Administering liquids:** If medical help is not available within an hour and the victim is conscious and not vomiting and requests something, give him ½ glass solution of 1/teaspoon salt.1/2 teaspoon baking soda to a quart of water, every 15 minutes

## **Eye Injuries**

### **Foreign bodies in the eye**

- (a) Never rub eyes
- (b) Try to flush out with clean water
- (c) If object is on the upper lid, lift eyelid and remove object with sterile gauze
- (d) If foreign object cannot be removed, cover eye till a doctor attends to victim

### **Impaled objects**

- (a) Cover with paper cup to protect the eye and prevent object from being further driven

- and prevent object from being further driven into it
- (b) Leave object in victim; it should only be removed by a doctor
  - (c) Place sterile gauze around eye, apply no pressure
  - (d) Cover both eyes, and explain to the victim why both eyes are covered, one eye cannot move without the other eye moving, Calm and reassure the victim-he may panic with both eyes covered

For chemical burns to the eyes, see Burns-chemical above

## **Poisons**

### **If unconscious**

- (a) Do not induce vomiting.
- (b) Put him in 'recovery position' i.e. lye on his side
- (c) If breathing is inadequate give artificial respiration

### **If conscious**

- (a) Give plenty of water to drink.
- (b) Induce vomiting except for acids, corrosive poison or a petroleum product. Vomiting may be induced by pharyngeal irritation by finger or spoon or by salt water (two spoons of salt in half a litre of water).
- (c) If the poison is gas or vapour, immediately move to an open space with fresh air.
- (d) In case of acids neutralise with cream of magnesia or calcium hydroxide 56 gm to one ounce of warm water or soda bicarbonate or chalk.
- (e) In case of alkalies neutralise with vinegar or lemon juice. Do not induce vomiting and give plenty of water to drink.



**Annexure 'A'**  
**(Refers to Para 13 a)**

**List of Medicines in First Aid Box and Remedies**

<b>Sr. No</b>	<b>Name of Medicines</b>	<b>Remedies</b>	<b>Quantity</b>
<b>TABLETS</b>			
1.	AVOMINE	Vomiting	1 strip
2.	CROCIN PLUS	Fever	1 strip
3.	PARACETAMOL	Fever with body pain, shivering	1 strip
4.	DIGENE	Gastric	1 strip
5.	DISPRIN	Headache, body pain	1 strip
6.	PUDHIN HARA		1 strip
7.	TEAR PLUS	Eye cleansing	1 bottle
8.	GLUCON-D	Instant energy	500g ( 1 pack)
<b>ANTISEPTIC CREAM AND BANDAGE</b>			
9.	BURNOL	Applying on burnt skin	1
10.	TRIPLE ANTIBIOTIC OINMENT		1
11.	BETADINE	Applying on injured/ cut body parts	1
12.	BAND-AID	For cuts	1 box
13.	ADHESIVE TAPE	For covering cuts/injuries	1 roll
14.	COTTON ROLL		1 roll
15.	ZANDU BALM	For Cold, body Pain, Headache	1 bottle
16.	VOLINI SPRAY	Muscular Pain	1 bottle
<b>ACID AND ALKALI SPLASHES ON SKIN AND ON EYE</b>			
17.	SODIUM CARBONATE- 5%	Neutralizing acid spills on skin	1 bottle
18.	SODIUM BICARBONATE- 2%	Neutralizing acid spills on skin	1 bottle
19.	BORIC ACID- SATURATED SOLUTION	Neutralizing acid spills on skin	1 bottle
20.	ACETIC ACID	Neutralizing acid spills on skin	1 bottle
21.	EYE DROPS	Eye	1 bottle
22.	GOGGLES	Eye Protection	1
23.	RUBBER GLOVES	Protector	1
<b>ACCESSORIES</b>			
25.	SAVLON	Cleaning injured body parts	1 bottle
26.	STERILE SCISSORS	Accessories	1

## FIRE SAFETY

### 1. Fire Detection and Alarm System at TERI SCHOOL OF ADVANCED STUDIES:

TERI SCHOOL OF ADVANCED STUDIES has been provided with Automatic Fire detection and Alarm System having sensitive Addressable Smoke Detectors and Heat Detector which are connected to Zone Fire Alarm panels located in the ground floor of Admin Block in the University Campus and all these control panels are centrally connected. The detectors are evenly spread out to cover all the floors in the University Campus and are adjusted to so as to give an indication and alarm. The Round O'clock Technician on duty in the University has the provisions and standing instructions to alert all concerned personnel for prompt necessary action in case of any fire emergency with the help of the public address system installed in the Reception. In addition to the Automatic Detection System, all cores of the University Campus have Addressable Manual Call Points on each floor, which can be activated (by breaking the glass panel) personally by any occupant of the building to call the fire personnel.

**Annexure 'B'**  
**(Refers to Para 19 a)**

#### Alert Systems

Location	Alert Systems installed				
	Pre Alarm System	Fire Detector	Fire Hooter	Response Indicator	Manual Call Point
<b>Academic Block</b>					
<b>Ground Floor</b>	02	56	02	26	02
<b>1<sup>st</sup> Floor</b>	-	48	02	24	02
<b>2<sup>nd</sup> Floor</b>	-	48	02	24	02
<b>3<sup>rd</sup> Floor</b>	-	40	02	20	02
<b>4<sup>th</sup> Floor</b>	-	32	01	16	01
<b>Admin Block</b>					
<b>Ground Floor</b>	-	18	01	09	01
<b>1<sup>st</sup> Floor</b>	-	28	01	14	01
<b>2<sup>nd</sup> Floor</b>	-	24	01	12	01
<b>3<sup>rd</sup> Floor</b>	-	04	01	02	01
<b>Cafeteria Block</b>					
<b>Ground Floor</b>	-	12	01	-	01
<b>1<sup>st</sup> Floor</b>	-	12	01	-	01
<b>2<sup>nd</sup> Floor</b>	-	12	01	-	01
<b>3<sup>rd</sup> Floor</b>	-	12	01	-	01
<b>4<sup>th</sup> Floor</b>	-	12	01	-	01

**Annexure 'B'**  
**(Refers to Para 19 a)**

**Alert Systems**

Location	Alert Systems installed				
	Pre Alarm System	Fire Detector	Fire Hooter	Response Indicator	Manual Call Point
<b>Hostel Block</b>					
<b>Ground Floor</b>	-	-	01	-	01
<b>1<sup>st</sup> Floor</b>	-	-	01	-	01
<b>2<sup>nd</sup> Floor</b>	-	-	01	-	01
<b>3<sup>rd</sup> Floor</b>	-	-	01	-	01
<b>4<sup>th</sup> Floor</b>	-	-	01	-	01
<b>Office Block ( EDAS )</b>					
<b>Ground Floor</b>	01	30	01	-	01
<b>1<sup>st</sup> Floor</b>	-	30	01	-	01
<b>2<sup>nd</sup> Floor</b>	-	30	01	-	01
<b>3<sup>rd</sup> Floor</b>	-	30	01	-	01
<b>Basement and Periphery</b>					
<b>Basement</b>	-	19	04	-	04
<b>Total</b>	<b>03</b>	<b>497</b>	<b>31</b>	<b>147</b>	<b>31</b>

## 2 TERI SCHOOL OF ADVANCED STUDIES FACILITATED FIRE FIGHTING SYSTEMS

TERI SCHOOL OF ADVANCED STUDIES has been provided with appropriate fire- fighting equipment placed at different locations such that can be easily approach to use in case of emergency.

**Annexure 'C'**  
**(Refers to Para 19 b)**

### Fire Extinguishers

Location	Number of Fire Extinguishers installed						
	CO <sub>2</sub> 4.5 KG	CO <sub>2</sub> 22.5 KG	ABC 2KG	ABC 5KG	DCP 5KG	Foam 9 Liters	Water 9 Liters
<b>Academic Block</b>							
Ground Floor	01	-	03	01	01	-	01
1 <sup>st</sup> Floor	02	-	-	-	01	-	02
2 <sup>nd</sup> Floor	02	-	-	-	01	-	02
3 <sup>rd</sup> Floor	01	-	-	01	01	-	03
4 <sup>th</sup> Floor	01	-	-	01	01	-	02
<b>Admin Block</b>							
Ground Floor	03	-	-	-	-	-	-
1 <sup>st</sup> Floor	01	-	-	-	-	-	01
2 <sup>nd</sup> Floor	-	-	-	-	02	-	-
3 <sup>rd</sup> Floor	-	-	-	-	01	-	-
Chula Lab	-	-	-	-	-	-	01
<b>Cafeteria Block</b>							
Ground Floor	01	-	-	-	-	-	01
1 <sup>st</sup> Floor	01	-	-	-	01	-	01
2 <sup>nd</sup> Floor	01	-	-	-	-	-	01
3 <sup>rd</sup> Floor	01	-	-	-	-	-	01
4 <sup>th</sup> Floor	01	-	-	-	-	-	01
<b>Hostel Block</b>							
Ground Floor	01	-	-	-	-	-	01
1 <sup>st</sup> Floor	01	-	-	-	01	-	01
2 <sup>nd</sup> Floor	01	-	-	-	-	-	01
3 <sup>rd</sup> Floor	01	-	-	-	-	-	01
4 <sup>th</sup> Floor (Solar / M Tech Lab)	01	-	-	01	01	-	01
<b>Office Block (EDAS)</b>							
Ground	02	-	-	-	-	-	02

<b>Floor</b>							
<b>1<sup>st</sup> Floor</b>	<b>02</b>	-	-	-	-	-	<b>02</b>
<b>2<sup>nd</sup> Floor</b>	<b>02</b>	-	-	-	-	-	<b>02</b>
<b>3<sup>rd</sup> Floor</b>	<b>02</b>	-	-	-	-	-	<b>02</b>
<b>Basement</b>	<b>04</b>	<b>19</b>	-	-	<b>03</b>	<b>02</b>	<b>03</b>
<b>D G Yard</b>	-	-	-	-	-	<b>02</b>	-
<b>Transformer Yard</b>	-	<b>01</b>	-	-	<b>03</b>	-	-
<b>Canteen Back Side</b>	-	-	-	<b>01</b>	-	-	-
<b>Electrical Store</b>	-	-	-	<b>01</b>	-	-	-
<b>Total</b>	<b>33</b>	<b>20</b>	<b>03</b>	<b>06</b>	<b>17</b>	<b>04</b>	<b>33</b>
<b>Grand Total</b>	<b>116</b>						

**Annexure 'C'**  
**(Refers to Para 19 b)**

### Fire Hydrant

Location	Hydrant	Hose Reel	Hose Pipe		Nozzle	
			15 m	7.5 m	Branch	Shut Off
<b>Academic Block</b>						
<b>Ground Floor (Stair Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>Ground Floor (Toilet Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>1<sup>st</sup> Floor (Stair Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>1<sup>st</sup> Floor (Toilet Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>2<sup>nd</sup> Floor (Stair Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>2<sup>nd</sup> Floor (Toilet Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor (Stair Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor (Toilet Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>4<sup>th</sup> Floor (Stair Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>4<sup>th</sup> Floor (Toilet Side)</b>	<b>01</b>	<b>01</b>	<b>02</b>	-	<b>01</b>	<b>01</b>
<b>Terrace (3<sup>rd</sup> Floor)</b>	<b>01</b>	-	<b>02</b>	-	<b>01</b>	-
<b>Terrace (4<sup>th</sup> Floor)</b>	<b>01</b>	-	<b>02</b>	-	<b>01</b>	-
<b>Admin Block</b>						
<b>Ground Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>

<b>1<sup>st</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>2<sup>nd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>02</b>	<b>01</b>	<b>01</b>
<b>Terrace</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Cafeteria Block</b>						
<b>Ground Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>1<sup>st</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>2<sup>nd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>02</b>	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>02</b>	<b>01</b>	<b>01</b>
<b>4<sup>th</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>02</b>	<b>01</b>	<b>01</b>

**Annexure 'C'**  
**(Refers to Para 19 b)**

### Fire Hydrant

<b>Location</b>	<b>Hydrant</b>	<b>Hose Reel</b>	<b>Hose Pipe</b>		<b>Nozzle</b>	
			<b>15 m</b>	<b>7.5 m</b>	<b>Branch</b>	<b>Shut Off</b>
<b>Hostel Block</b>						
<b>Ground Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>1<sup>st</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>2<sup>nd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>4<sup>th</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>Office Block (EDAS)</b>						
<b>Ground Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>
<b>1<sup>st</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>

<b>2<sup>nd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>
<b>3<sup>rd</sup> Floor</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>
<b>Terrace</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Basement</b>						
<b>Stair Academic side</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>
<b>Stair EADS Side</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>
<b>Out Ramp Side</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>01</b>	<b>01</b>
<b>Stair Admin Block</b>	<b>01</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>01</b>
<b>Campus Boundary</b>						
<b>Location -1 (Entry Gate)</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -2</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -3</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -4</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -5</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -6</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -7</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -8</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Location -9 (Exit Gate)</b>	<b>01</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Total</b>	<b>45</b>	<b>32</b>	<b>84</b>	<b>21</b>	<b>45</b>	<b>32</b>

### 3. TRAINING IN FIRE FIGHTING DRILL

TERI School of advanced Studies has actively involved in in-house as well as outdoor fire drills for awareness of employees and students.

#### Tentative schedule

Session 1	Briefing Session fire and safety assessment in TERI School of advanced Studies
Session 2	Classroom Training on Fire Fighting (in house)
Session 3	Mock Drill (in house)
Session 4	Fire Drill (in house)

Session 5	Fire Lecture on awareness and fire drill by fire Inspector, Delhi fire Control
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## **FIRE ORDER**

### **In Case of Fire, Marshals and Fighters**

- **Raise Fire Alarm**
- **Inform Reception**
- **Reception inform Fire Officer**
- **Reception also inform Fire Brigade at Telephone**
- **Break nearby MCP**
- **Marshals and Fighters position themselves**
- **Fighters use portable Fire Fighting Equipment**
- **Marshals Evacuate and Guide the people for Nearest Emergency Exit**

### **In Case of Fire, T U Community**

- **Way to Nearest Emergency Exit**
- **Walk; Do Not Run**
- **Do Not Use Elevators**
- **Close But Do Not Lock All Doors as You Leave**
- **Remain Calm; Do Not Panic**
- **Remain Low; Crawl if Necessary**
- **Assemble at Existing Assembling Point Outside the Main Gate**
- **Stay Clear of the Building until Your Appointed Fire Marshal has advised You to Re-Enter the Building**
- **Assist Visitors During Alarm/ Emergency**

## **Fire Fighting Training**

**As part of HSE (Health Safety and Environment) initiative**

TU Disaster Management Team has conducted Fire Safety Awareness and Fire Fighting Training for TU Community. This practice is being conducted time to time at TU.

### **1. Fire Drill Session:**

<b>Date</b>	<b>Time</b>	<b>Fire Drill Description</b>	<b>Fire Session By</b>

### **2. Fire Drill Session Attendance:**



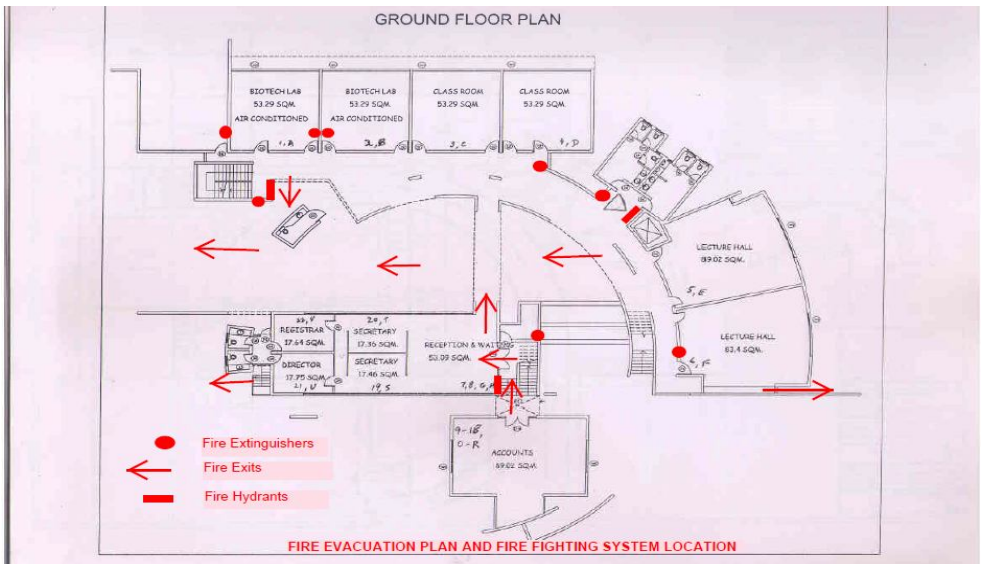
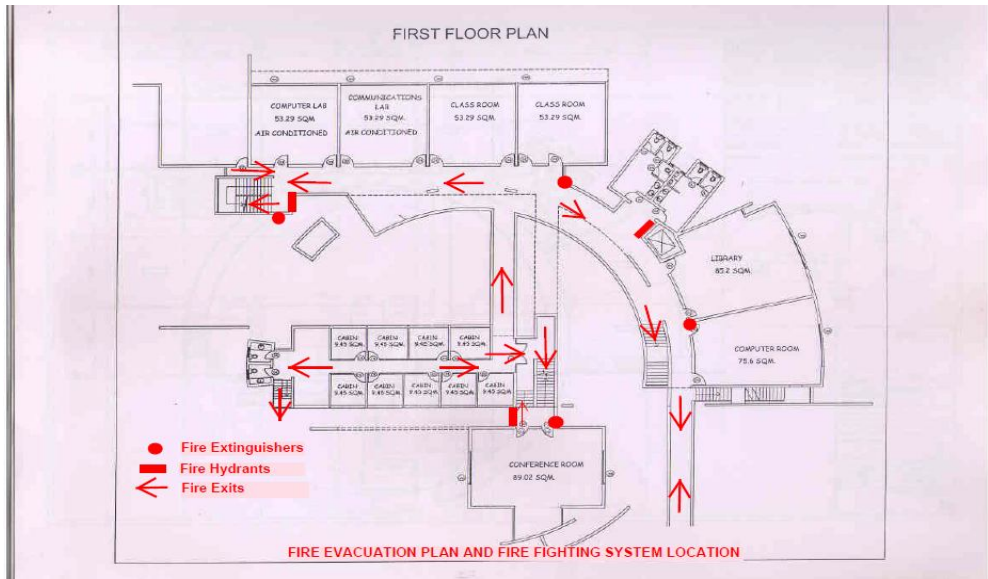
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2			29		
3			30		
4			31		
5			32		
6			33		
7			34		
8			35		
9			36		
10			37		
11			38		
12			39		
13			40		
14			41		
15			42		
16			43		
17			44		
18			45		
19			46		
20			47		
21			48		
22			49		
23			50		
26			53		
27			54		

**Annexure 'D'**  
(Refers to Para 20 a)

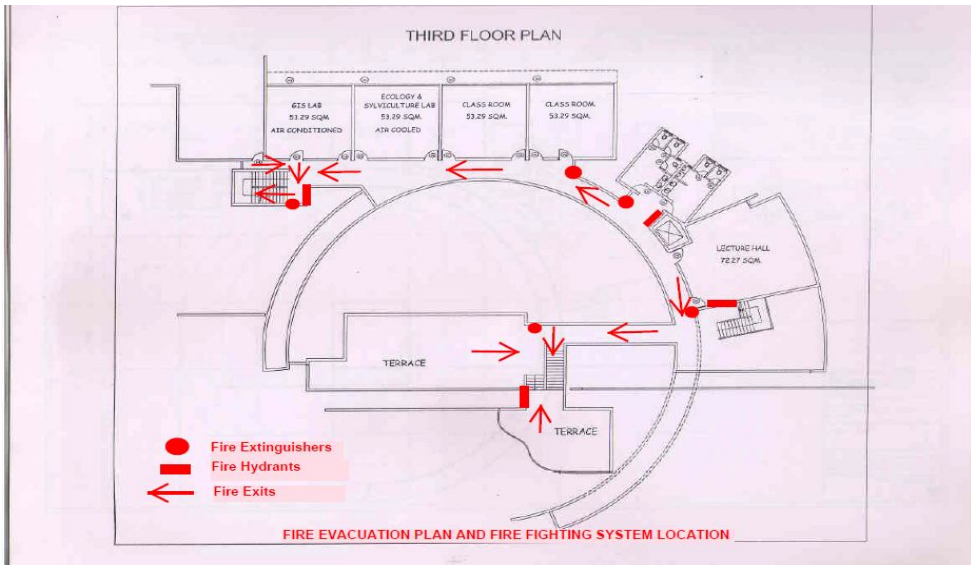
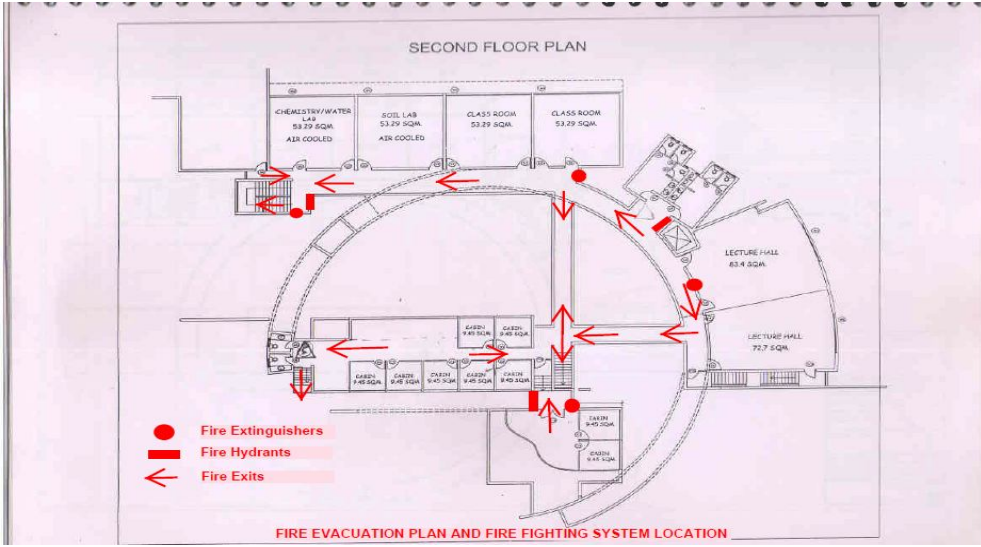
#### **4. RESCUE OR EVACUATION**

TERI School of advanced Studies has proper rescue or evacuation plan to be followed by TU Community in the event of Fire Disaster. Copy of evacuation plans are pasted on notice boards of all block.

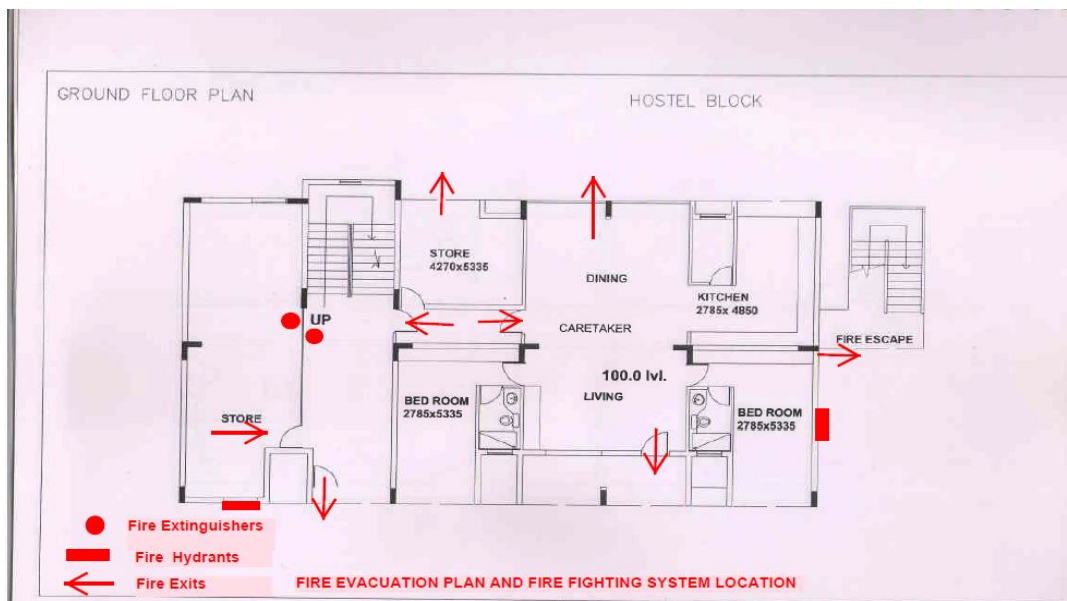
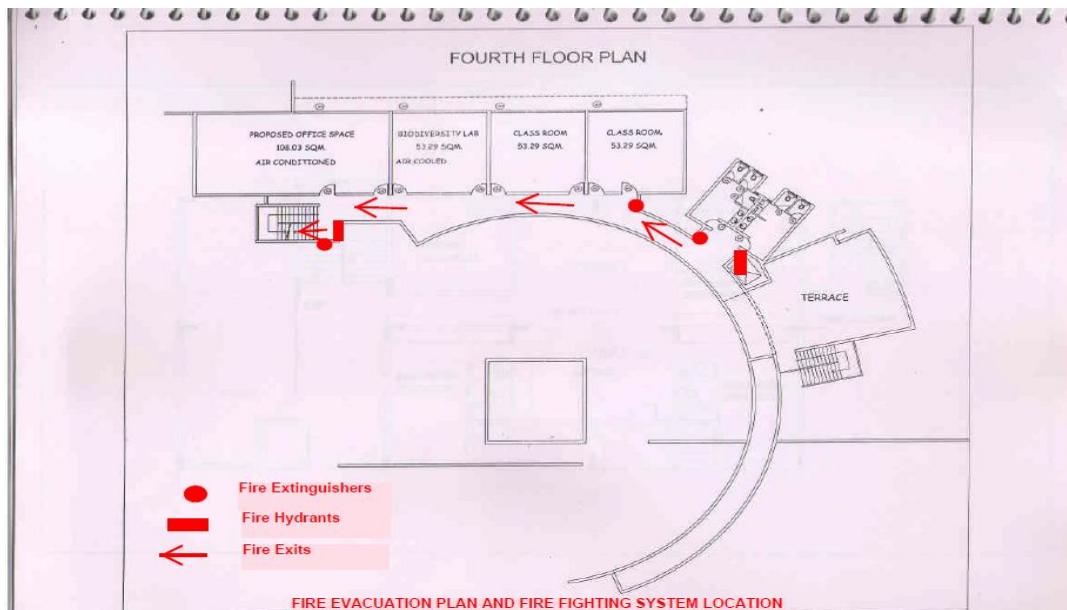
#### **Evacuation Plan and Location of Fire Fighting Systems**



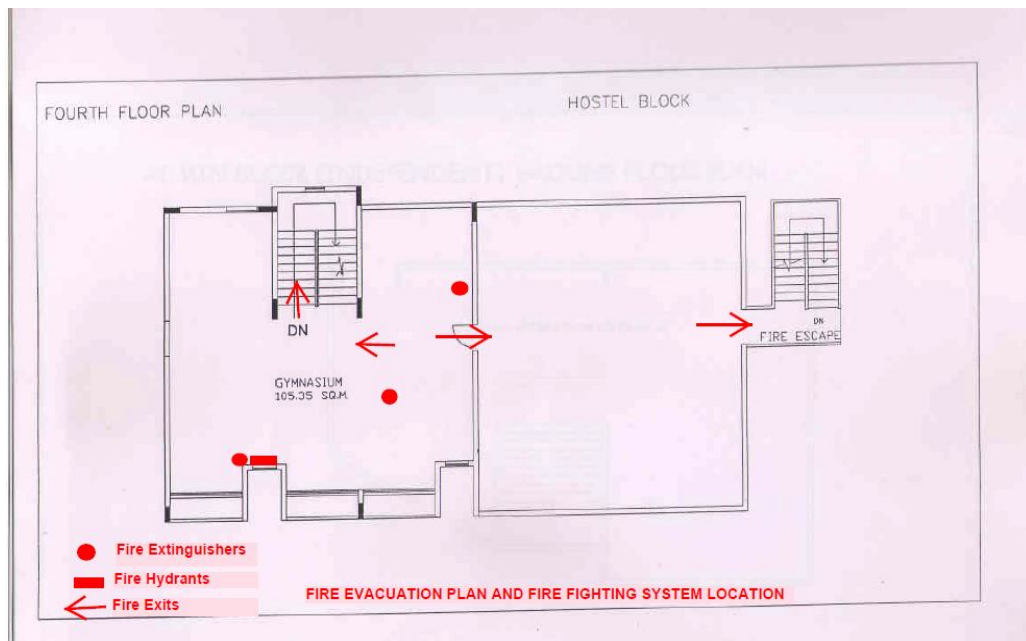
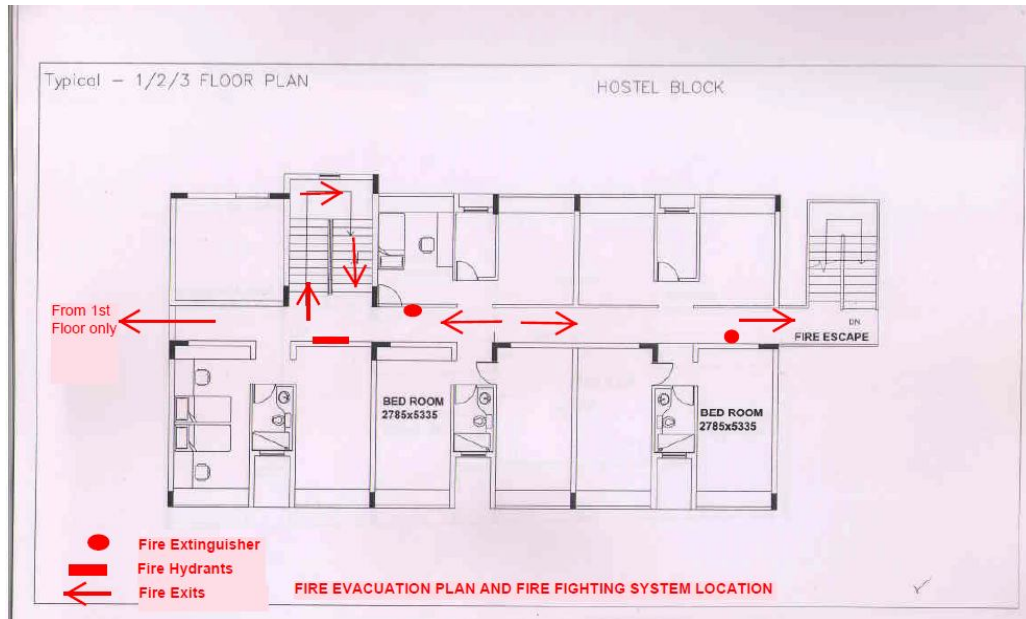
**Evacuation Plan and Location of Fire Fighting Systems**



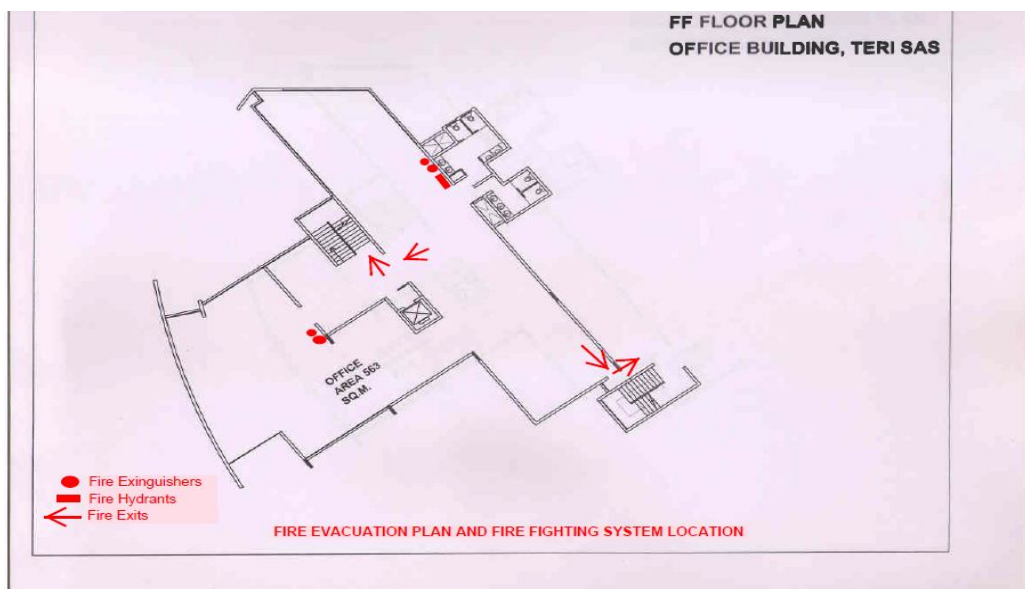
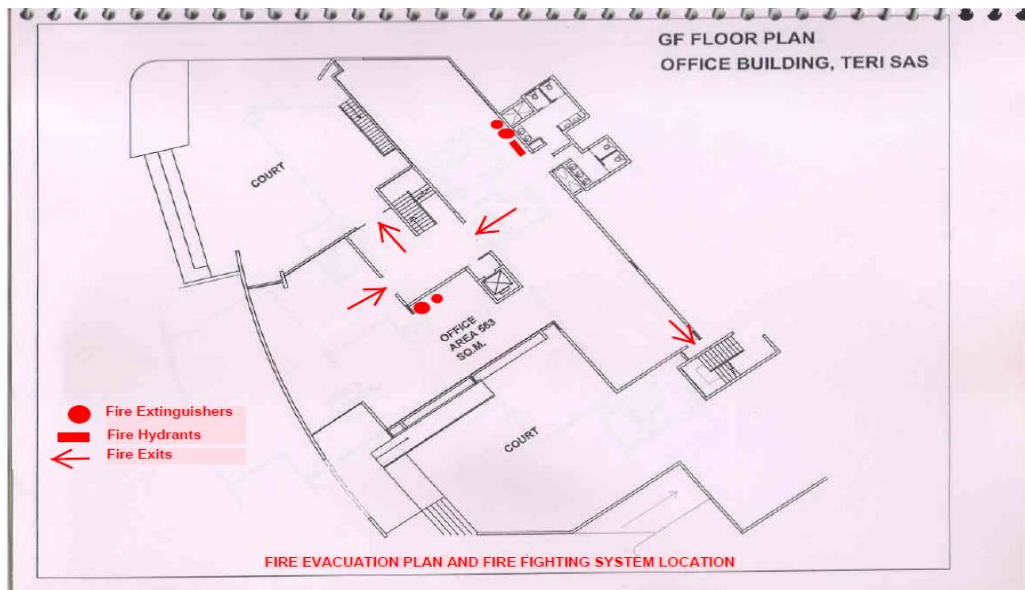
## Evacuation Plan and Location of Fire Fighting Systems



## Evacuation Plan and Location of Fire Fighting Systems



## Evacuation Plan and Location of Fire Fighting Systems



## Evacuation Plan and Location of Fire Fighting Systems

