แผนป้องกันและแผนอพยพหนีไฟ

(ฉบับที่ 1)

Fire Emergency

Evacuation Procedure

TGGS, KMUTNB

October 21, 2016 (V.1.4)

TGGS, KMUTNB

Fire Emergency Evacuation Procedure

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1. Overview

These guidelines intended to establish the procedures to be carried out in the event of any emergencies which may require a total evacuation of people within the building. Evacuation from building may be necessary as the result of fire, explosion, chemical leak, structural fault, equipment failure or bomb threat. These guidelines have been prepared principally for fire emergencies, but they are also suitable for use in other emergencies.

Also note that the evacuation policy is to focus only at the evacuation of all building occupants. There is no firefighting team to deal with fire incident. The firefighting will be dealt by the fire brigade.

2. Emergency Personnel

2.1. Organization of the Emergency Personnel

The organization of the emergency personnel for TGGS building consists of:

- Building Fire Warden and deputies
- Floor Fire Wardens and deputies for each floor
- Communication Staff and deputy
- Technical Staff and deputy

Note that the traffic management around the building during the fire incident will be handled by the university traffic management personnel.

2.2. Roles and Responsibilities

2.2.1. Building Fire Warden

Roles

- On regular basis, the Building Fire Warden has to ensure that the building and its occupants are prepared should a fire emergency situation occurs.
- During emergency situations, the Building Fire Warden will be in control of the occupants of the whole building until the arrival of the Fire Brigade.
- It should be emphasized that the primary role of all Fire Wardens is not to combat fire and emergencies, but to ensure, as far as practicable, the safety of occupants and their orderly evacuation from emergencies.

Responsibilities

- Before Fire or Emergency:
  - Assist in training of emergency personnel under his/her command.
  - Designate an assembly area (or areas) for the building. Occupants of the building should be directed to assemble in this area when required to evacuate the building in an emergency.
  - Ensure that the emergency floor plan is displayed on each floor. The emergency floor plan should show all exits, assembly area to be used in case of fire or emergency, fire alarms, extinguishers and fire hose reels.
  - Ensure that all emergency personnel in the building are given instruction in relation to:
    - evacuation procedures
    - means of escape from the building and location of assembly areas
    - the location and operation of fire alarms, and
    - the location and operation of fire extinguishers or other emergency equipment required in the building.

- Together with all Floor Fire Wardens, ensure that all building safety components and emergency systems are prepared for the emergency operation should a fire emergency situation occurs:
  - The fire alarm system
  - The fire pump
  - Fire extinguishers and fire hose reels
  - Emergency exit signs
  - Escape routes
- Familiarize themselves with the usage of the fire extinguisher to control the fire through trainings with experts.

- In the case of Fire or Emergency:
  - Respond immediately to an alarm, determine the nature of the emergency.
  - Initiate Emergency Evacuation Procedures for the building.
  - Direct the actions of Floor and Area Wardens within the building.
  - Check that all occupants have proceeded to the designated assembly area.
  - In consultation with the fire brigade, advise occupants when it is safe to return to the building.

2.2.2. Floor Fire Warden

Roles

- On regular basis, the Floor Fire Warden has to ensure that the appointed floor and its occupants are prepared should a fire emergency situation occurs.
- During emergency situations, the Floor Fire Warden (under the direction of the Building Fire Warden) will control all evacuation and firefighting (only if it is safe to do so) on the appointed floor.
- It should be emphasized that the primary role of all Fire Wardens is not to combat fire and emergencies, but to ensure, as far as practicable, the safety of occupants and their orderly evacuation from emergencies.

Responsibilities

- Before Fire or Emergency:
  - Familiarize themselves with the floor for which they have responsibility.
  - Familiarize themselves with potential problem areas.
  - Familiarize themselves with the usage of the fire extinguisher to control the fire through trainings with experts.
  - Identify people who will require special assistance during evacuation.
  - Identify location of fire alarm call points and firefighting equipment.
  - Ensure that floor occupants are conversant with the emergency evacuation procedures.
  - Ensure that firefighting and emergency equipment within the floor are in its correct position (as shown on the displayed floor plans) and ready for use:
    - Fire alarm system

        - Fire extinguishers and fire hose reels
        - Emergency exit signs
        - Escape routes
    - Ensure that passageways and exits are kept clear at all times.
    - Ensure that the emergency escape plan is kept current and prominently displayed.
- In the case of Fire or Emergency:
    - Check the source, type and severity of the fire emergency.
    - Order the evacuation of the floor if necessary.
    - Advise the Building Warden of the fire emergency on the floor and the proposed action to be taken.
    - Ensure that all occupants of the floor are aware that evacuation of the floor is necessary, and direct the occupants to the nearest accessible exit or escape stairs, through which they should proceed to the designated assembly area.
    - Ensure that evacuation from the floor is orderly and by means of the stair--DO NOT USE THE ELEVATORS.
    - Ensure that necessary assistance is given to disabled and other persons in need of special care.
    - Check fire doors to ensure that they are closed and post a watch so that they are kept closed except during the escape of occupants.
    - Provided it is safe to do so, make a thorough search of the whole floor to ensure that no persons remain.
    - Advise the Building Fire Warden when evacuation is completed.
    - Assist the Building Fire Warden in checking that all building occupants have arrived at the assembly area.

2.2.3. Communication Staff

Roles

- On regular basis, the Communication Staff has to ensure reliable means of communication to the external emergency services, and that all communication devices are functioning should a fire emergency situation occurs.
- During emergency situations, the Communication Staff handles all communications to other external emergency services as requested by the Building Fire Warden.

Responsibilities

- Before Fire or Emergency:
    - Ensure that the contact numbers to the external emergency services are available and up to date. This includes, but not limited to, the following services:
        - All TGGS emergency personnel (internal phone number, mobile phone number)
        - TGGS security personnel (internal phone number, mobile phone number)
        - TGGS Dean and Associate Deans. (internal phone number, mobile phone number)

        - Fire brigade (direct line to the local fire brigade, hotline/central number of fire emergency)
        - Police (direct line to the local police station, hotline/central number for police emergency service)
        - University medical center (internal phone number, direct line)
        - Emergency medical service (direct line to the local emergency medical service, hotline/central number of the emergency medical service)
    - Ensure that all communication devices (internal phone and mobile phone) are functioning.
- In the case of Fire or Emergency:
    - Upon receiving command from the Building Fire Warden, contact and report the incident to the respective emergency service and provide the following information:
        - nature of emergency
        - location of the emergency (address, building, floor and room number)
        - your name and phone number

2.2.4. Technical Staff

Roles

- On regular basis, the Technical Staff has to ensure that the power control room and its control panel are prepared should a fire emergency situation occurs.
- During emergency situations, the Technical Staff (only by the direction of the Building Fire Warden and only if it is safe to do so) will:
    - Cut off the main electrical power circuit of the building.
    - Manually control the operation of the fire pump.

Responsibilities

- Before Fire or Emergency:
    - Ensure that the power control room, the fire pump control room, and their control panels are prepared for the emergency operation should a fire emergency situation occurs:
        - Ensure that the control rooms and the control panels can be quickly and easily accessed at all time.
        - Ensure and be familiarized with the correct steps to operate the control panel:
            - To cut off, and to reconnect the electrical power to the building.
            - To manually override the operation of the fire pump.
- In the case of Fire or Emergency:
    - Upon receiving command from the Building Fire Warden:
        - Cut off or reconnect the main electrical power circuit of the building.
        - Manually override the operation of the fire pump.

2.3. Appointment and Presence Time

Personnel	During working hours (Monday to Friday from 8:30-16:00)	Outside working hours and during public holidays
Building Fire Warden	TGGS Building Engineer	TGGS Building Security Personnel
Floor Fire Wardens	As assigned in Section 2.4	
Communication Staff	Head of TGGS Administration Office	
Technical Staff	As assigned in Section 2.4	

2.4. List of Emergency Personnel and Contact

Personnel	Appointed person/people	Contact {mobile, internal}
Building Fire Warden and deputies	• Mr. Wichai Narkpol	089-922-7573, 2933
	• Mr. Saranuphonk Saiphradit (deputy)	085-334-9294, 2933
	• Mr. Amornchai Puhirun (deputy)	099-252-9922, 2925
Floor Fire Wardens and deputies	1st floor • Mrs. Ladda Mukdasanit • Ms. Sutasinee Boonpradit	089-740-6523, 1601 081-458-7058, 1604
	2nd floor • Ms. Phetcharat Boonruang • Mr. Puttipun Wattana	097-956-2464, 1623 090-984-6500, 1633
	3rd floor • Mr. Dhirawat Muanglen • Ms. Nuttacha Soontornpak (deputy)	084-767-9977, 2902 088-019-2208, 2925
	4th floor • Mr. Bundit Tanboonjit • Mr. Varunyou Nontaboot (deputy)	083-056-0431, 2914 080-221-2296, 2929
	5th floor • Mr. Sayan Ruankon • *To be assigned by TGGS* (deputy)	089-355-1347, 2936
	6th floor • Mr. Maitri Kamonrattanapisud • Ms. Rapeeporn Srisuk (deputy)	092-520-4040, 2918 086-340-8088, 2921
	7th floor • Mr. Manus Dangchat • Mr. Itsara Rojana (deputy)	085-205-2339, 2913 081-552-9252, 2913
	8th floor • Ms. Nuchchada Kohpeisansukwattana • Mr. Ampol Likitchatchawankun (deputy)	089-357-8952, 2916 083-012-0727, 2919
	9th floor • Dr. Chayakorn Netramai • *To be assigned by TGGS* (deputy)	080-620-9879, 2925
	10th floor • Ms. Notsawan Swadchaipong • Ms. Sukunya Arreeya (deputy)	062-651-9155, 2917 084-862-8826, 2917
	11th floor • Mr. Thitinun Ungtrakul* • *To be assigned by TGGS* (deputy)	086-000-774, 2920
Communication Staff and deputy	• Ms. Penthip Jirapinnusorn • Ms. Wilailuk Muenpet (deputy)	083-079-6606, 2906 081-611-6839, 2902

Fire Emergency Evacuation Procedures

Personnel	Appointed person/people	Contact {mobile, internal}
Technical Staff and deputy	• Mr. Sayan Ruankon • *To be assigned by TGGS* (deputy)	089-355-1347, 2914
TGGS Security Personnel	• Mr. Chairat • Mr. Ardun	088-942-9993, 2923 091-498-7344, 2923
TGGS Associate Dean for Administrative Affairs	• Dr. Chayakorn Netramai	080-620-9879, 2925

3. Action in Case of Emergency

Group	Action
Building occupants	**Before fire emergency:** • All occupants should make themselves familiar with the emergency escape routes within the floor and the building. **On discovering a fire:** • Verbally alert people around you and within the floor about the fire incident. • Activate the nearest fire alarm call point. • Inform the Floor Fire Warden or Deputy about the fire incident including the exact location and the extent of the fire (see Section 2.4. "List of Emergency Personnel and Contact" for names and telephone number of the Floor Fire Warden and Deputy). • In case the Floor Fire Warden and Deputy cannot be reached, make a phone call to report the exact location of the fire to the Building Fire Warden: o During working hours; call the Building Fire Warden (call 089-922-7573, or 2933 using internal phone) o Outside of working hours; call the Security Personnel (call 088-942-9993 or 091-498-7344, or 2923 using internal phone) **On hearing the fire alarm or directed by Fire Wardens:** • Leave the building through the escape route. Walk, do not run. • If it is safe to do, close all doors behind you, but do not lock them, to prevent the fire from spreading. • Use stairs, DO NOT USE ELEVATORS. • Proceed calmly to the assembly point.
Building Fire Warden and deputies	**During working hours:** • Upon receiving fire report, determine and record the exact location and the extent of the fire. o In case receiving a report of a false alarm, visually confirm the false alarm location with the respective Floor Fire Warden. If it is a false alarm, then reset the alarm system and inform all Floor Fire Wardens to announce to Building Occupants to resume normal usage of the building. • Establish contact and communicate with the correspond Floor Fire Warden (see Section 2.4. "List of Emergency Personnel and Contact" for names and telephone number of the Floor Fire Warden and Deputy): o Ensure that the fire alarm within his/her area has been activated. If the attempt fails, manually activate the fire alarm call point nearest to you. o Direct the action of the Floor Fire Warden to put out the fire using fire extinguisher: - Only if it is safe to do and only if the Floor Fire Warden has been trained - Only if the fire is small and not spreading o If the fire has been put out successfully, visually confirm the location with the respective Floor Fire Warden. If the fire has completely stop and there is no further threat or danger, reset the alarm system and inform all Floor Fire Wardens to announce to Building Occupants to resume normal usage of the building. • Command the Communication Staff to notify the incident to: o The fire brigade (199) o The medical service (1646) o TGGS Associate Dean for Administrative Affairs (call 080-620-9879, or 2925 using internal phone) • Continuously receive and record reports from Floor Fire Wardens about: o The current status of the fire o The current status of the evacuation o Information of injured or trapped occupants • If needed, command the electrician to cut off the power within the building.

Group	Action

	• When the fire brigade arrives, pass on the information about the incident, the evacuation progress and report about injured or trapped occupants within the building.
	• Following the instructions of the fire brigade officers and liaising between the fire brigade and Fire Emergency staff.
	• At the assembly point, check the number of occupants as well as injured people and give a report to higher officer or the fire brigade.
	• Give the status summary to the building occupants once the fire is under controlled or put out.
	• Give the status report to the university higher officer.
	Outside working hours:
	• Upon receiving fire report, determine and record the exact location and the extent of the fire.
	• Instruct the person who report the fire to activate the nearest fire alarm call point. If the attempt fails, manually activate the fire alarm call point nearest to you.
	• Establish contact and communicate with the correspond Floor Fire Warden (see Section 2.4. "List of Emergency Personnel and Contact" for names and telephone number of the Floor Fire Warden and Deputy):
	  ○ Ensure that the fire alarm within his/her area has been activated. If the attempt fails, manually activate the fire alarm call point nearest to you.
	  ○ Direct the action of the Floor Fire Warden to put out the fire using fire extinguisher:
	  - Only if it is safe to do and only if the Floor Fire Warden has been trained
	  - Only if the fire is small and not spreading
	  ○ If the fire has been put out successfully, visually confirm the location with the respective Floor Fire Warden. If the fire has completely stop and there is no further threat or danger, reset the alarm system and inform all Floor Fire Wardens to announce to Building Occupants to resume normal usage of the building.
	• Contact and report the incident to:
	  ○ The fire brigade (199)
	  ○ The medical service (1646)
	  ○ TGGS Associate Dean for Administrative Affairs (call 080-6209879, or 2925 using internal phone)
	• Assisting the evacuation of building occupants to the assembly point.
	• At the assembly point, check the number of occupants as well as injured people and give a report to higher officer or the fire brigade.
	• Give the status summary to the building occupants once the fire is under controlled or put out.
	• Give the status report to the university higher officer.

Floor Fire Wardens and deputies	**On receiving the fire report within your own floor:**
	• Determine and record the exact location and the extent of the fire.
	• Ensure that the fire alarm has been activated.
	• Contact the Building Fire Warden to report the fire emergency:
	  ○ During working hours; call the Building Fire Warden (call 089-922-7573, or 2933 using internal phone)
	  ○ Outside of working hours; call the Security Personnel (call 088-942-9993 or 091-498-7344, or 2923 using internal phone)
	• If directed by the Building Fire Warden, try to put out the fire using fire extinguishers.
	  ○ Only if it is safe to do and if you have been trained
	  ○ Only attack fire if it is small and not spreading
	  ○ Inform the Building Fire Warden of the result of your action and await further instructions
	When the alarm sounds or when directed by Building Fire Warden:
	• Control the evacuation within your floor.

Fire Emergency Evacuation Procedures

Group	Action
	○ Provided it is safe to do so, make a thorough search of the whole floor or area to ensure that no occupants remain. Report to the Building Fire Warden in case injured or trapped occupants have been found. ○ Make sure all those that need assistance evacuating have assistance. ○ Direct the building occupants to the nearest escape route, through which they should proceed to the designated assembly point. ○ If anyone refuses to leave the building don't waste your time arguing. Note their name or room number and report them to the Building Fire Warden. • At the assembly point, check the number of occupants within their floor as well as injured people and give a report to the Building Fire Warden.
Communication Staff and deputy	• Upon receiving command from the Building Fire Warden, contact and report the incident to: ○ The fire brigade (call 199) ○ The medical service (call 1646) ○ TGGS Associate Dean for Administrative Affairs, call 080-620-9879, or 2925 using internal phone) Report following information: ○ Nature of emergency ○ Location of the emergency (address, building, floor and room number) ○ Your name and phone number • Liaising all communications to other external emergency services as requested by the Building Fire Warden.
Technical Staff and deputy	• Upon receiving command from the Building Fire Warden, cut off the power within the building (only if it is safe to do so).
TGGS Associate Dean for Administrative Affairs	• Upon receiving the fire report, notify and report to the correspond university officers and divisions: ○ TGGS Dean ○ University Building and Vehicle Division

4. Safety Steps for Fire Evacuation and Fire Emergency[1]

If you hear the fire alarm you should:

- Leave your place of work, closing doors behind you if this can be done quickly in order to stop the fire from spreading.
- Follow your nearest exit route to the assembly point and stay there until authorized to return by the Building Fire Warden.
- If your usual exit route is blocked by smoke, use the alternative exit route.
- Use the stairs at all times. Do not use elevators to exit the building. Their movement assists fire travel and they may stop suddenly if there is a power failure. They may also take you to the scene of the fire. Do not wait for an elevator to come as they will automatically go to the ground floor when the fire alarm activates and will stay there.

If you are in a room with the door closed when the fire breaks out, you need to take a few extra steps:

- Check to see if there is heat or smoke coming in the cracks around the door. (You are checking to see if there is fire on the other side.)
- If you see smoke coming under the door — do not open the door!
- If you do not see smoke — touch the door. If the door is hot or very warm — do not open the door!
- If you do not see smoke — and the door is not hot — then use your fingers to lightly touch the doorknob. If the doorknob is hot or very warm — do not open the door!
- If the doorknob feels cool, and you cannot see any smoke around the door, you can open the door very carefully and slowly. When you open the door, if you feel a burst of heat or smoke pours into the room, quickly shut the door and make sure it is really closed. If there is no smoke or heat when you open the door, go toward your escape route exit.

Stay Low during evacuation through smoke

If you can see smoke in the building, stay low to the ground as you make your way to the exit.

In a fire, smoke and poisonous air hurt more people than the actual flames do. You will breathe less smoke if you stay close to the ground.

Smoke naturally rises, so if there is smoke while you are using your escape route, staying low means you can crawl under most of it. You can drop to the floor and *crawl on your hands and knees* below the smoke.

[1] Reference: http://kidshealth.org/en/kids/fire-safety.html

Do not return to your desk, office or room

Once you are out, do not go back in for anything.

What if you cannot get out right away?

If you cannot get out fast, because fire or smoke is blocking an escape route, you will want to yell for help. You can do this from an open window or call the emergency personnel (call 2923 using internal phone for Building Fire Warden or call 199 for fire brigade) if you have a phone with you.

Even if you are scared, never hide under the desk or in a closet because firefighters will have a hard time finding you. Know that firefighters will be looking for you to help you out safely. The sooner they find you, the sooner you both can get out.

In the meanwhile, keep heat and smoke from getting through the door by blocking the cracks around the door with clothing. If there is a window in the room that is not possible to escape from, open it wide and stand in front of it. If you can grab a piece of clothing or a towel, place it over your mouth to keep yourself from breathing in the smoke. This works even better if you wet the cloth first.

If your clothes catch fire

A person's clothes could catch fire during a fire or by accident. If this happens, do not run! Instead, stop, drop to the ground, cover your face with your hands, and roll. This will cut off the air and put out the flames.

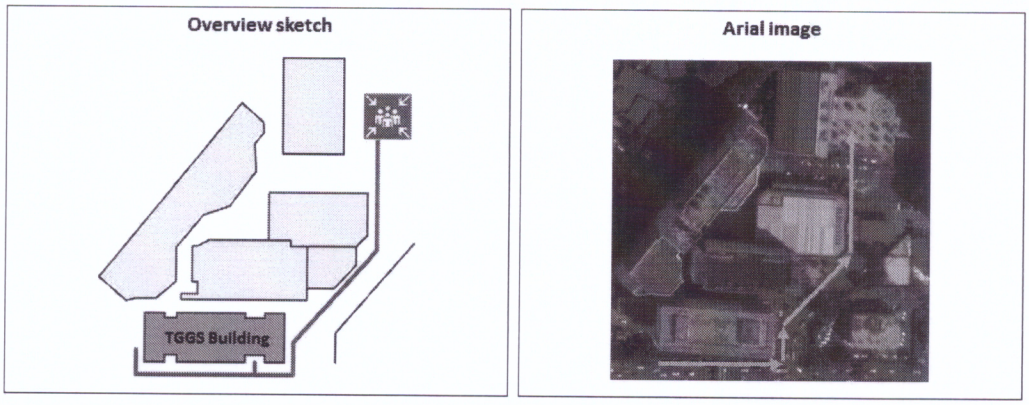
5. Emergency Escape Route

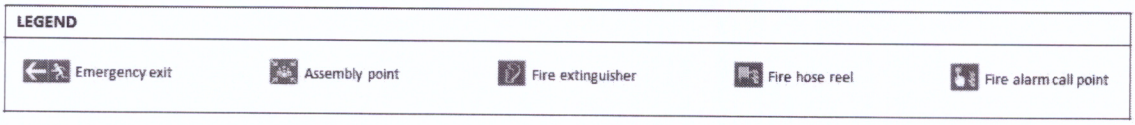
This chapter contains the following:

- The escape route from TGGS building to the assembly point.
- The emergency escape route for all floor in TGGS building.

5.1. The Escape Route from TGGS Building to the Assembly Point

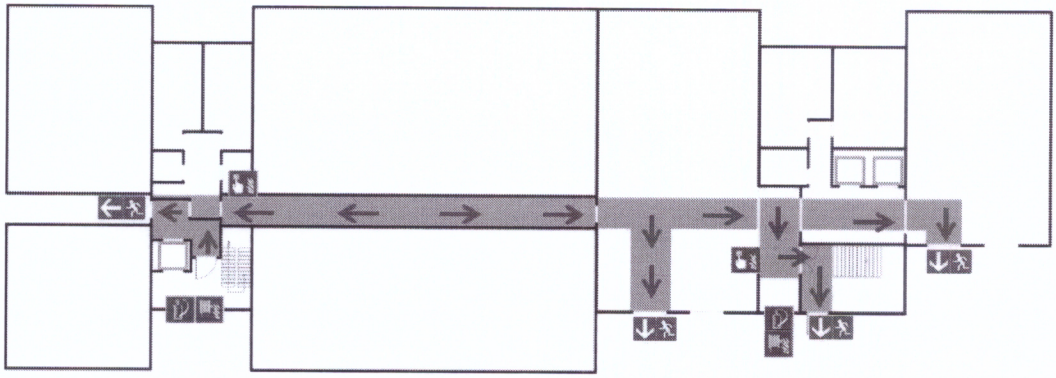
Escape route to the assembly point



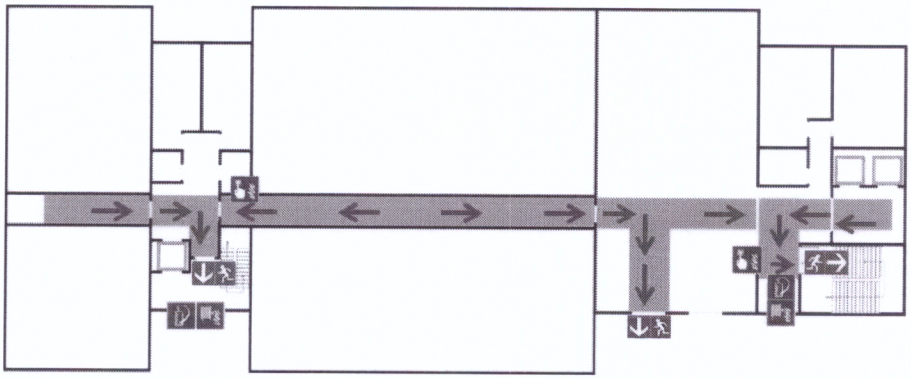


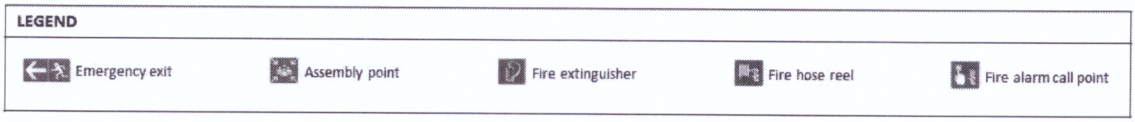
5.2. The Emergency Escape Route for all Floor in TGGS Building

1st Floor, TGGS Building

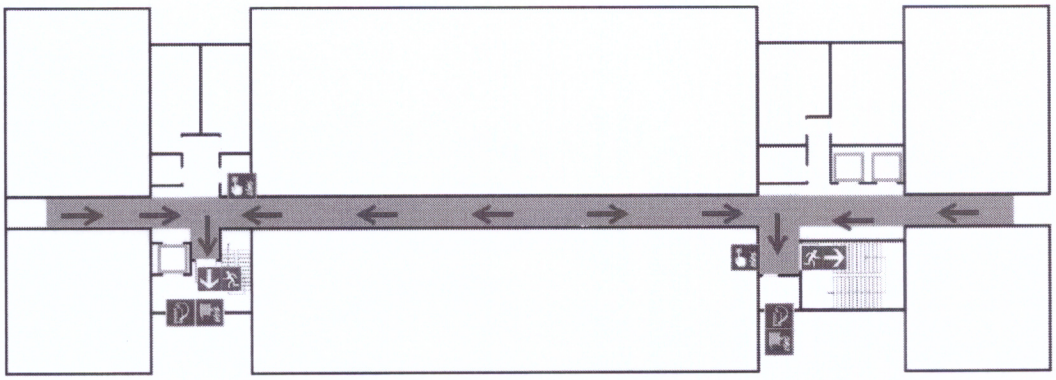


2nd Floor, TGGS Building

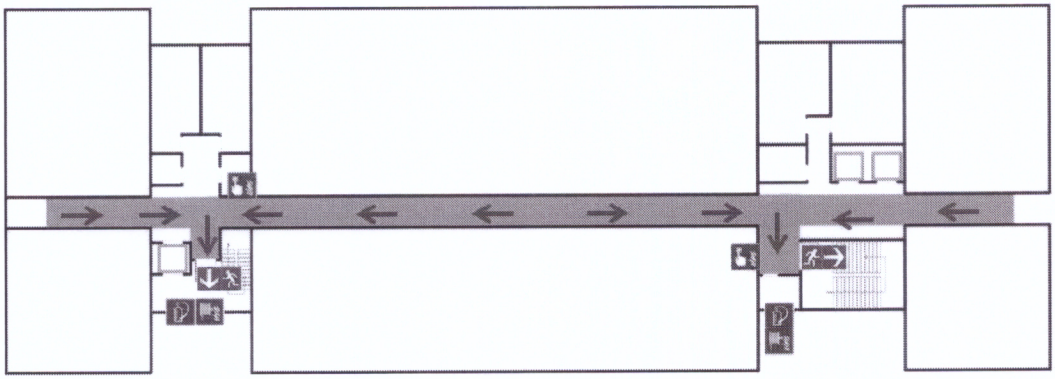




3rd Floor, TGGS Building

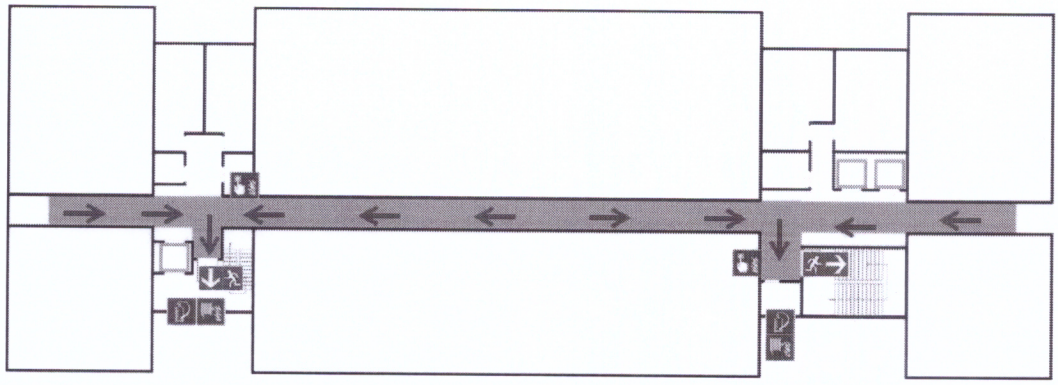


4th Floor, TGGS Building

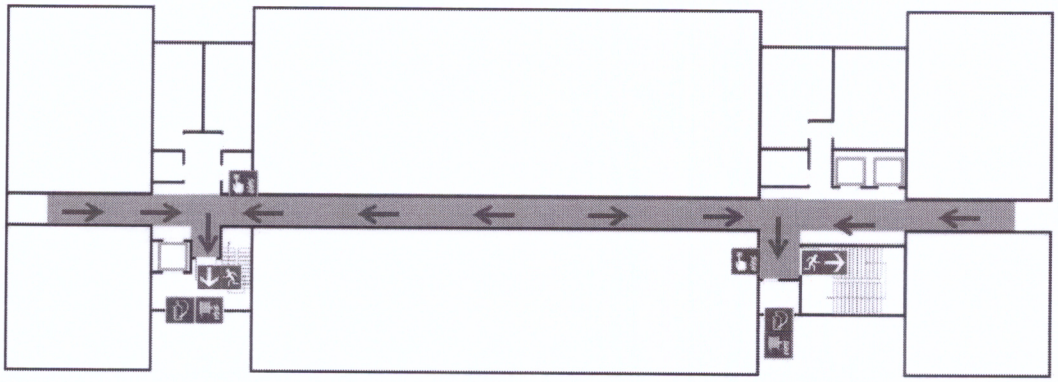


LEGEND				
Emergency exit	Assembly point	Fire extinguisher	Fire hose reel	Fire alarm call point

5th Floor, TGGS Building

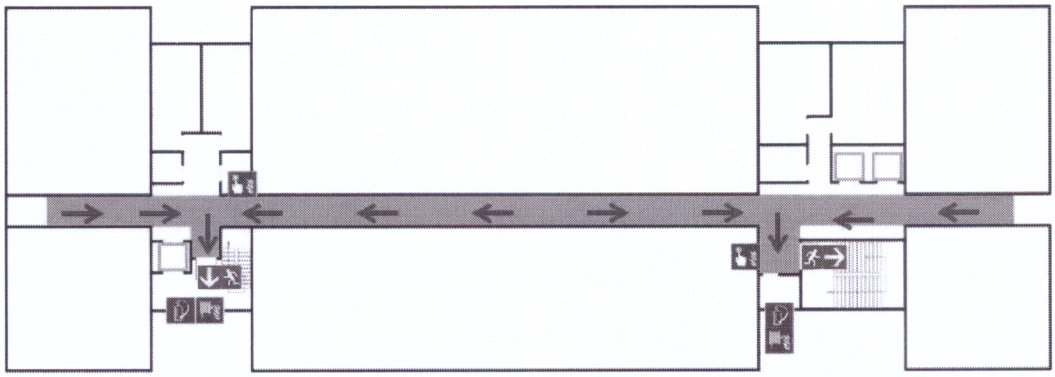


6th Floor, TGGS Building

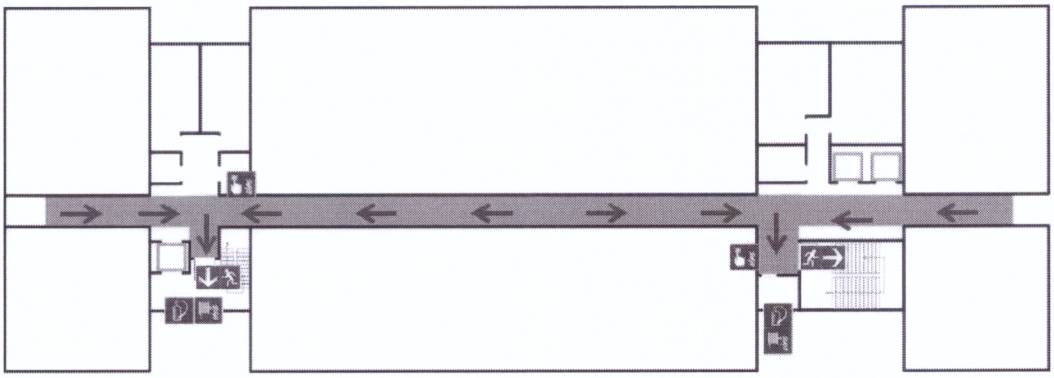


LEGEND				
Emergency exit	Assembly point	Fire extinguisher	Fire hose reel	Fire alarm call point

7th Floor, TGGS Building

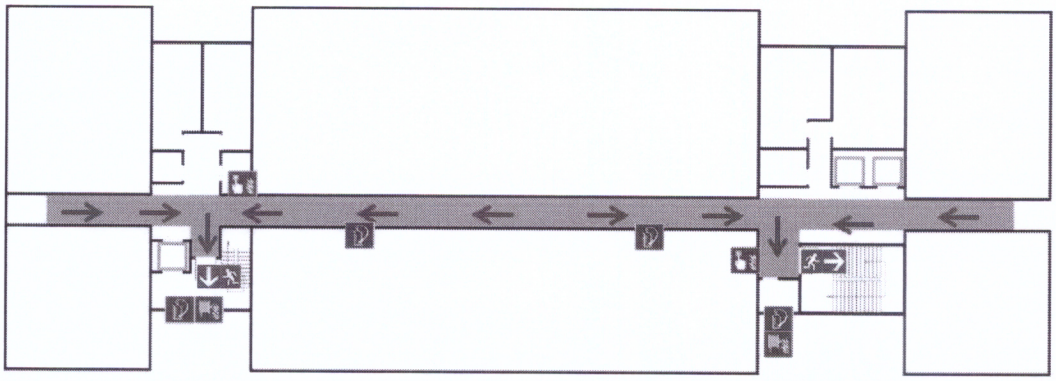


8th Floor, TGGS Building

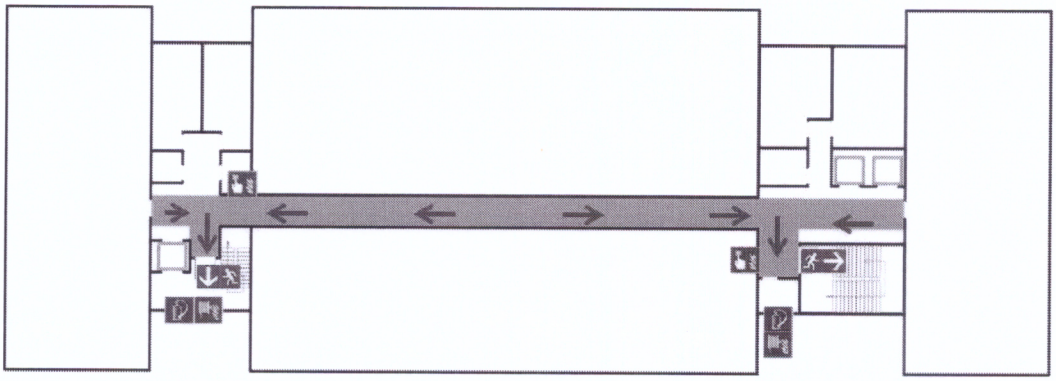


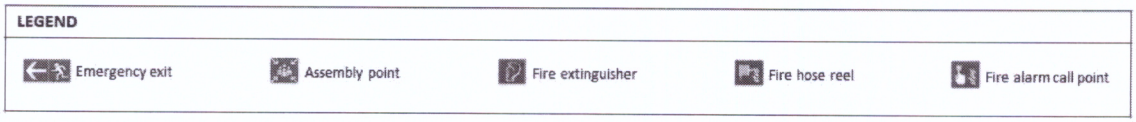
LEGEND				
Emergency exit	Assembly point	Fire extinguisher	Fire hose reel	Fire alarm call point

9th Floor, TGGS Building

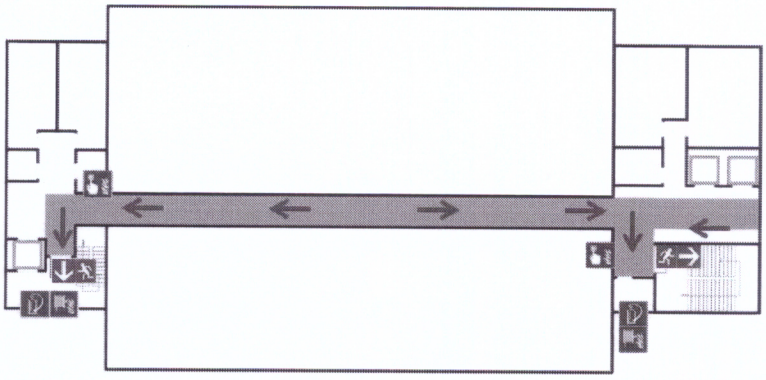


10th Floor, TGGS Building





11th Floor, TGGS Building



LEGEND				
Emergency exit	Assembly point	Fire extinguisher	Fire hose reel	Fire alarm call point

6. Version History

version	release date	Detail
1.0	August 23th, 2016	• First version released.
1.1	August 24th, 2016	• Modify appointed personnel. • Some minor changes in "Action in Case of Emergency". • Add a section "Action in Case of Emergency without a working Fire Alarm System" • Move "Version History" to the end of the document.
1.2	August 30th, 2016	• Modify appointed personnel.
1.3	September 14th, 2016	• Add a cover page. • Add TOC. • Add roles and responsibilities of emergency personnel. • Add Appointment and presence time of emergency personnel. • Update list of emergency personnel and contact. • Update action in case of emergency. • Update action in case of emergency without a working fire alarm system. • Add the safety steps for fire evacuation and fire emergency. • Add the emergency escape route.
1.4	October 21st, 2016	• Information about "action in case of emergency without a working fire alarm system" has been removed since the new fire alarm system has been installed and is now in operation. • Update the names and telephone numbers in Section 2.4. *"List of Emergency Personnel and Contact".* • Update the information in Section 3. *"Action in Case of Emergency".* • Minor update the roles and responsibilities of emergency personnel throughout Section 2.2. *"Roles and Responsibilities".* • Update the TOC.