

Standard Operating Procedure for Lifts and Escalators in Uttarakhand 2025

1. Purpose and Objectives:

- 1.1. This Standard Operating Procedure (SOP) for lifts (elevators), escalators and walkalators/ moving walkways covers safety, installation, operation, maintenance and emergency procedures.
- 1.2. The procedure ensures that lifts, escalators and walkalators/ moving walkways are operating efficiently and safely while complying with national and local regulations and standards.

2. Scope:

- 2.1. This SOP covers passenger lifts, freight lifts, escalators, walkalators/ moving walkways.
 - 2.1.1. Lift is a compartment either housed in a shaft or travelling in a hoist way for raising and lowering people or things to different levels. This excludes ropeways and trolleys.
 - 2.1.2. Escalator is a power-driven set of stairs arranged like an endless belt that ascend or descend continuously which carries people between floors of a building or structure.
 - 2.1.3. Walkalator/ moving walkway is a moving conveyor mechanism that transports people across a horizontal or inclined plane.
- 2.2. This SOP covers equipment mentioned in clause 2.1 installed at all public and private spaces which include government buildings, commercial buildings, residential complexes and buildings, malls, hospitals, educational institutions, hotels, public transit stations and religious institutions.
- 2.3. The provisions for escalators from hereunder include the same for walkalators/ moving walkways.

3. Roles and Responsibilities:

- 3.1. The user/ owner/ facility manager shall ensure that no lift/ escalator shall be erected and operated without obtaining permission to erect the lift/ escalator and license to operate the same; procedure for both has been described in clause 4.
- 3.2. The user/ owner/ facility manager shall mandatorily give the CAMC/AMC (Comprehensive Annual Maintenance Contract/ Annual Maintenance Contract) or any other type of maintenance contract of the lift or escalator to the OEM (Original Equipment Manufacturer) of the lift or escalator. If that is not possible, then the CAMC/AMC or any other type of maintenance contract shall be given to the following in this preference: authorized dealer/ service provider of the OEM, experienced firms for lift/ escalator maintenance, firms for lift/ escalator maintenance.
- 3.3. The user/ owner/ facility manager shall ensure that lift/ escalator is operated by skilled operators.
- 3.4. The user/ owner/ facility manager shall maintain maintenance logs, incident reports and compliance reports as described in clause 11.
- 3.5. The technicians who have been contracted for maintenance of lifts/ escalators shall comply with provisions given in Annexure A.
- 3.6. The Chief Inspector of Lifts and Escalators or an officer authorized by him/her in this regard shall nominate an Inspector of Lifts and Escalators in each district of the state.
- 3.7. The Inspectors of Lifts and Escalators shall himself/herself or through persons delegated for the same issue permissions and licenses for erecting and operating lifts/ escalators as described in clause 4.
- 3.8. The Inspectors of Lifts and Escalators shall himself/herself or through persons delegated for the same do periodical/ random inspections and act accordingly as given in clause 5.
- 3.9. The Inspectors of Lifts and Escalators shall himself/herself or through persons delegated for the same, report accidental incidents with his/her remarks/ reasons and suggestions to the Chief Inspectors of Lifts and Escalators as described in clause 6.

4. Permission and Licensing Guidelines:

4.1. Permission to install/ erect a Lift or Escalator:

4.1.1. Every owner of a place intending to install a lift or escalator within the state shall apply for the same to the Inspector of Lifts and Escalators in the prescribed form (Form A).

4.1.2. On receipt of application, the officer authorized in this behalf by the Inspector of Lifts and Escalators shall, after making such enquiry and requiring the applicant to furnish such information as may be necessary, forward the application with his/her remarks to the Inspector of Lifts and Escalators or to the officer authorized by him/her in this behalf within fifteen working days and there upon he/she may either grant or refuse the permission within fifteen working days otherwise it will be deemed sanctioned.

4.1.3. The permission granted shall be valid for a period of one year from the date on which it is granted after which extension for a period of three months can be applied (Form A) after paying a fee of Rs. 500.00 (except for lifts or escalators in Central/State government buildings).

4.1.4. The installation/ erection of the lift or escalator should comply with standards as described in clause 9.

4.2. License to use a Lift or Escalator: No lift or escalator shall be operated except under and in conformity with the terms of the license granted in respect of the same; provided that this shall not be applicable for six months from such date when this SOP comes into effect OR if an application for license is made within that period in accordance with the provisions of this SOP, until such application is finally disposed of under the said section.

4.2.1. Every owner of a place who is permitted to install a lift or escalator shall, within one month after the completion of the erection of such lift or escalator, inform the Inspector of Lifts and Escalators in writing of such completion and shall submit an application (Form B) along with a fee of Rs. 500.00 for grant of a license for operating the lift or escalator. However, no fee is required to be paid if the lift or escalator belongs to the Central/State government.

4.2.2. On receipt of application, the officer authorized in this behalf by the Inspector of Lifts and Escalators in the presence of the OEM's representatives shall, after making such enquiry and requiring the

applicant to furnish such information as may be necessary including a safety and compliance certificate to standards mentioned in section 9 issued by the OEM on its letter head, forward the application with his/her remarks to the Inspector of Lifts and Escalators or to the officer authorized by him/her in this regard within fifteen working days and thereupon he/she may either grant or refuse the license within fifteen working days otherwise it will be deemed sanctioned.

- 4.2.3. License in case of existing Lifts and Escalators: Every owner of a place, in which a lift or escalator is already installed shall apply for a license for such lift or escalator free of cost in prescribed format (Form B) within six months of the issuance of this SOP along with a safety and compliance certificate to standards mentioned in section 9 issued by the OEM on its letter head. After six months, license for such lifts or escalators can be applied for with a fee (except for lifts or escalators in Central/State government buildings) of Rs. 500.00.
- 4.2.4. Validity of the license shall be one year from the date of issuance (except for lifts/ escalators in homes for private/ personal use in which case validity of the license shall be five years from the date of issuance).
- 4.2.5. Renewal of License: At least two months prior to the expiry of the license, an application for renewal of the license shall be made in the prescribed format (Form B) along with a safety and compliance certificate to standards mentioned in section 9 issued by the OEM on its letter head.
- 4.2.6. In case of refusal of license to a new or existing lift/ escalator, the reasons for such refusal must be stated clearly and communicated to the user/ owner/ facility manager.
- 4.2.7. If the Inspector of Lifts and Escalators or the officer authorized by him/her in this behalf is of the opinion that the lift or escalator is in an unsafe condition, he/she may issue an order to the owner of the building requiring such repairs or alterations to be made to such lift or escalator as he/she may deem necessary within the time specified (maximum one month).
- 4.2.8. After the time specified for repairs or alterations, the officer authorized in this behalf by the Inspector of Lifts and Escalators shall, after making such enquiry and requiring the applicant to furnish such

information as may be necessary, forward the application with his/her remarks to the Inspector of Lifts and Escalators or to the officer authorized by him/her in this regard within fifteen working days and thereupon he/she may either grant or refuse the license within fifteen working days otherwise it will be deemed sanctioned.

5. Maintenance and Inspection:

- 5.1. The user/ owner/ facility manager/ operator must do daily and weekly maintenance checks as given in Annexure A.
- 5.2. Trained maintenance contract personnel should be kept/ contracted to do monthly, quarterly, semi-annually and annual maintenance checks as given in Annexure A.
- 5.3. Every lift and escalator shall be inspected for renewal of license to operate by the Inspector of Lifts and Escalators or an officer authorized in this behalf by him/her and a fee of Rs. 500.00 shall be charged for such inspection (no fee is required to be paid for lifts and escalators installed and maintained by the Central/State government). However, licenses for lifts and escalators installed in homes for private/ personal (not in commercial buildings) use shall be renewed after every five years.
 - 5.3.1. If on such inspection, the officer is of the opinion that the lift or escalator is in an unsafe condition, he/she may issue an order to the owner of the building requiring such repairs or alterations to be made to such lift or escalator as he/she may deem necessary within the time specified therein and may also, if necessary, order the use of such lift or escalator to be discontinued until such repairs or alterations are made or such unsafe condition is removed.
- 5.4. Permission to enter any building or premise for inspection of Lifts and Escalators:
 - 5.4.1. An officer not below the rank of the Inspector of Lifts and Escalators or any other officer authorized by him/her in this behalf may seek permission from the user/ owner/ facility manager to enter in any building or premise in which a lift or escalator is installed or is being installed or in connection with which an application for a license has been received, for the purpose of inspecting the lift or escalator or the lift or escalator installation or the site thereof. If the permission to enter

the building or premise is denied by the user/ owner/ facility manager then the license for operation of the lift/ escalator may be suspended till the time that such permission is denied.

5.4.2. If on such inspection, the officer is of the opinion that the lift or escalator is in an unsafe condition, he/she may issue an order to the owner of the building requiring such repairs or alterations to be made to such lift or escalator as he/she may deem necessary within the time specified therein and may also, if necessary, order the use of such lift or escalator to be discontinued until such repairs or alterations are made or such unsafe condition is removed.

6. Reporting:

6.1. Report of Accidents:

6.1.1. All accidents that occur in the operation of any lift or escalator must be reported by the user/ owner/ facility manager or a person authorized by him/her to the Inspector of Lifts and Escalators.

6.1.2. Where an accident occurs in the operation of any lift or escalator resulting in injury to any person, the user/ owner/ facility manager or a person authorized by him/her shall give notice with full detail along with CCTV footage of the accident to the Inspector of Lifts and Escalators.

6.1.3. The Inspector of Lifts and Escalators shall himself/herself or through persons delegated for the same, report accidental incidents after site investigation with his/her remarks/ reasons and suggestions to the Chief Inspectors of Lifts and Escalators.

6.1.4. The working of such lift or escalator shall not be resumed except with the written permission of the Chief Inspector of Lifts and Escalators or the officer authorized in this behalf by him/her.

7. Appeal:

7.1. If the user/ owner/ facility manager of the lift or escalator is not satisfied with the decision of the Inspector of Lifts and Escalators, then-

7.1.1. An appeal shall lie from the order issued to the Chief Inspector of Lifts and Escalators or an officer authorized by him/her in this regard within thirty days from the passing of such an order. The Chief

Inspector of Lifts and Escalators or the authorized officer must dispose of the appeal within fifteen working days of receiving such an appeal.

7.1.2. A further appeal shall lie with the Secretary or an officer authorized by him/her in this regard within thirty days from the disposal of the appeal. The Secretary or the authorized officer must dispose of the appeal within fifteen working days of receiving such an appeal.

8. Safety Measures and Emergency Procedures:

8.1. The user/ owner/ facility manager shall make arrangement to provide automatic/emergency rescue device (ARD) to rescue the travelling passengers trapped in the lift or escalator in the event of breakdown of power supply by bringing the lift or escalator to nearest/any floor, stopping the lift or escalator and keeping the landing and lift or escalator cage doors open.

8.2. Safety features for lifts and escalators have been described in Annexure B.

8.3. Emergency procedures for lifts and escalators have been described in Annexure B.

9. Compliance and Standards:

9.1. Lifts and escalators must comply with latest national (IS 14665, IS 15785, IS 4591, National Building Code, Bureau of Indian Standards) standards and safety guidelines.

9.2. The original equipment manufacturers' guidelines and recommendations for installation, operation and maintenance must be adhered to.

9.3. Fine: If the user/ owner/ facility manager contravenes with any of the provisions of this SOP or conditions of a license, then the Chief Inspector of Lifts and Escalators or Inspector of Lifts and Escalators or any other officer authorized by him/her in this behalf may issue a direction to the user/ owner/ facility manager to take corrective measures within one month from the date of issuance of such direction. In case the corrective measures are not taken for one month, then the user/ owner/ facility manager may be levied with a fine by the Inspector of Lifts and Escalators which may extend up to Rs. 10,000.00 and the lift/ escalator may be sealed and its license for operation be suspended during the time when such contravention continues.

10. Training and Awareness:

- 10.1. The user/ owner/ facility manager shall ensure that trained operator be present during lift/escalator operation to rescue trapped passengers and do daily and weekly checks.
- 10.2. Maintenance contract firms must ensure that monthly, quarterly and annual checks be done by trained personnel.
- 10.3. A list of Dos/ Don'ts shall be displayed inside the lift car and at each landing for lifts and near the approach for escalators.
- 10.4. Emergency contact numbers and steps to be followed during an emergency like abrupt power failure should be clearly displayed inside the lift car and at each landing for lifts and near the approach for escalators.

11. Documentation:

- 11.1. Dedicated maintenance log book must be maintained on site for each lift/ escalator and it should be accessible to authorized personnel such as maintenance technicians and safety inspectors.
- 11.2. Dedicated breakdown/incident and accident log book must be maintained on site for each lift/ escalator and it should be accessible to authorized personnel such as maintenance technicians and safety inspectors.
- 11.3. Compliance and safety audits by safety inspectors should be documented separately.
- 11.4. The log books/ documentation should be preserved for a minimum period of five years.

(Annexure A)

Lift and Escalator Maintenance Schedule:

(i) **Daily Maintenance**

Visual Inspection:

Check for any visible damage or unusual wear and tear on lift and escalator components.

Inspect the cleanliness and lighting of the lift and escalator.

Basic Functional Test:

Ensure the lift and escalator responds properly to floor calls.

Check door operations (opening and closing smoothly).

(ii) **Weekly Maintenance**

Cleaning and Lubrication:

Clean the lift and escalator control panels.

Lubricate door tracks and rollers.

System Testing:

Test emergency alarm and intercom systems.

Verify proper alignment of lift doors and escalator steps.

(iii) **Monthly Maintenance**

Inspection of Key Components:

Check guide rails for wear and lubrication.

Inspect cables, ropes, and sheaves for fraying or damage.

Test the functioning of floor leveling.

Safety Features Check:

Test safety brake mechanisms.

Ensure emergency lighting is operational.

Ensure ARD is working properly.

(iv) **Quarterly Maintenance**

Comprehensive Testing:

Inspect electrical components, including motor, controller, and wiring.

Test over-speed governor functionality.

Hydraulic/Pneumatic Systems (if applicable):

Check fluid levels and look for leaks in hydraulic systems.

Structural Integrity:

Inspect the lift shaft and structural components of lift and escalator for corrosion or damage.

Conduct a safety mock drill.

(v) **Semi-Annual Maintenance**

Advanced System Checks:

Perform diagnostic tests on lift and escalator controllers.

Test battery backup systems for emergency power.

Load Testing:

Conduct a test with full load to ensure proper operation under maximum capacity.

(vi) Annual Maintenance

Comprehensive Inspection:

Perform a detailed inspection.

Replace worn-out components such as ropes, seals, and rollers as needed.

Safety Certification:

Obtain required safety certification or renewal from the relevant authorities.

System Upgrade Review:

Assess the need for software or hardware upgrades.

Ad-hoc Maintenance as needed:

Attend to any unexpected breakdowns or malfunctions immediately.

Conduct follow-up inspections after repairs.

- This is basic minimum maintenance schedule. Any other maintenance that is required for operation and maintenance as recommended by the manufacturer and applicable national and local standards must be adhered to.

Lift and Escalator Maintenance Schedule for domestic use:

For domestic use, monthly and annual inspections and checks must be performed which are prescribed by the manufacturer of the equipment or recommended by lift/ escalator maintenance firm.

(Annexure B)

Mandatory safety features for all Lifts including Domestic Lifts:

- Overload Protection
- Emergency Stop Button
- Automatic Doors with Safety Sensors
- Emergency Communication System
- Emergency Lighting
- Anti-Tilting Mechanism
- Safety Brakes and Buffer Systems
- Door Locking System
- Speed Governor
- Emergency Alarm System

Additional mandatory safety features for Commercial/ Public Lifts other than those for domestic use:

- Automatic Rescue Device (ARD)
- Fire Safety Features including Fire Extinguishers
- Backup Power Supply (Emergency Power)
- Earthquake or Seismic Safety Systems
- Load Weighing Systems
- Data Logging and Monitoring
- Clear Signage including instructions for the visually impaired
- Access for Emergency Services
- Mock Drills
- CCTV coverage
- First Aid Kit

Mandatory safety features for all Escalators including Domestic Escalators:

- Emergency Stop Button
- Handrails should move at the same speed as the escalator
- Escalator steps should be designed with tread edges and lighting that help passengers identify where to step

- The edges should also be equipped with anti-slip surfaces
- Skirt Guards
- Comb plates to ensure that the gaps between the steps and the landing are minimal
- Speed Monitoring
- Anti-Static Safety Sensors
- Automatic Leveling System
- Overload Detection
- Clear Signage including instructions for the visually impaired
- Speed Governor

Additional mandatory safety features for Commercial/ Public Escalators other than those for domestic use:

- Safety Barriers or Fences in high traffic areas
- Mock Drills
- Fire Safety Features including Fire Extinguishers
- CCTV coverage
- First Aid Kit

Emergency procedures for Lifts:

1. In Case of Lift Breakdown or Passenger Trapping

Immediate Actions:

Notify Maintenance Personnel: Inform the elevator maintenance service provider immediately.

Stop Further Use: Turn off the elevator at the main switch to prevent others from using it.

Passenger Rescue Procedure:

Calm the Passengers: Use the lift intercom, alarm system, or external communication devices to assure trapped passengers that help is on the way.

Ventilation Check: Ensure ventilation fans are operational to maintain airflow inside the cabin.

Avoid Forceful Attempts to Open Doors: Ensure that untrained personnel or passengers do not attempt to open the lift doors forcefully.

Authorized Rescue by Trained Personnel:

Manual Rescue Operation:

Trained personnel should operate the manual rescue device.

Follow the lift manufacturer's instructions for releasing the brake and moving the lift to the nearest landing floor.

Ensure Power is switched off: Switch off the power supply before attempting manual rescue to prevent accidental movement.

Open the Lift Doors: Open the cabin and landing doors using the authorized key.

Post-Rescue Protocols:

Inspect the lift before putting it back into operation.

File an incident report, noting the cause of the breakdown and rescue actions.

2. During Power Failures

Automatic Rescue Device (ARD):

Lifts should be equipped with ARD, which moves the lift to the nearest floor using backup power in case of power failure.

Communication Systems:

Ensure that the intercom or emergency alarm systems are functional for communication with passengers.

Manual Rescue Procedure:

If ARD is unavailable or non-functional, trained personnel must follow the manual rescue process to evacuate passengers.

3. In Case of Fire

Do Not Use the Lift:

Display clear signage prohibiting the use of lifts during a fire.

Evacuate Passengers:

Use fire-resistant lifts (if available) or ensure rescue via staircases.

Fire Service Mode:

Activate the fire service mode (if the lift is equipped) to move it to a safe floor for rescue operations.

4. In Case of Earthquakes

Seismic Sensors:

Lifts equipped with seismic sensors will move to the nearest landing floor and open doors automatically.

Post-Earthquake Inspection:

Do not use the lift until inspected by qualified technicians for structural and mechanical safety.

5. Maintenance of Emergency Systems

Ensure the following systems are inspected regularly as per IS standards:

Emergency Alarm: Functional alarm buttons connected to the building's security or lift maintenance team.

Emergency Light: Operational battery-powered lights inside the cabin.

Communication System: Intercom or phone connected to the building's emergency response team.

Signage: Proper instructions for passengers in case of emergencies.

Fire Safety Compliance: Periodic testing of fire service mode and related systems.

6. Regular Training and Drills

Conduct regular emergency drills for lift operators, building staff, and maintenance personnel.

Train personnel to operate rescue equipment as per IS guidelines.

7. Reporting and Documentation

Maintain a log of lift incidents, emergency drills, and maintenance.

Submit safety reports to local regulatory authorities as required.

Emergency procedures for Escalators:

Emergency Stop Buttons:

Placement: Emergency stop buttons, marked conspicuously with "STOP PUSH" or "STOP SWITCH," should be installed at or near the top and bottom landings of each escalator. These buttons must be easily accessible and protected against accidental activation. An unlocked cover that can be readily lifted or pushed aside is considered adequate protection.

Stop Switch in Machinery Spaces:

Requirement: A stop switch must be installed in each machinery space associated with the escalator. When activated, this switch removes electric power from the escalator's driving machine motor and brake, ensuring the equipment remains stationary during maintenance or emergencies.

FORM 'A'

Application for permission to install/ erect a lift or escalator or walkalator
(To be submitted to the Inspector of Lifts and Escalators)

S. No.	Requirements	(to be filled in by the applicant)
1	Full name and address of the owner	
2	Name and address of facility manager, if applicable	
3	Whether a permission has been previously granted (details to be given)	
4	Type of lift/escalator proposed to be installed/ erected (a sketch of the lift/ escalator and installation/ erection plans should be attached)	
5	The rated maximum speed of the lift/ escalator	
6	The manufacturer's or designer's rated capacity in weight	
7	The maximum number of passengers lift/ escalator can carry	
8	The total weight of the lift cage carrying the maximum load (applicable in case of lifts only)	
9	The number, description, weight and size of the supporting cables (applicable in case of lifts only)	
10	The depth of the pit from lowest part of the lift cage when at the lowest floor (applicable in case of lifts only)	
11	Details of the construction of the overhead arrangements with the weight and sizes of the beams (applicable in case of lifts only)	

(Date)

(Signature of the Applicant)

FORM 'B'

Application for license to operate the lift or escalator or walkalator
(To be submitted to the Inspector of Lifts and Escalators)

To

The Inspector of Lifts and Escalators, _____.

Sir/Madam,

With reference to your letter no. dated by which permission has been granted to erect a lift/ escalator/ walkalator, I/we have to state that the work of erection/ installation of the lift/ escalator/ walkalator was completed on I/We further request that a license for operating the lift/ escalator/ walkalator may be granted/ renewed. The work of erection/ installation of the lift/ escalator/ walkalator has been carried out in accordance with the SOP for Lifts and Escalators, 2025.

A fee of Five Hundred Rupees has been paid into the and a challan for that amount is enclosed.

(Date)

(Signature of the Applicant)

S. No.	Requirements	(to be filled in by the applicant)
1	Full name and address of the owner	
2	Name and address of facility manager, if applicable	
3	Whether a license has been previously granted (details to be given)	
4	Type of lift/escalator installed/ erected (a sketch of the lift/ escalator should be attached)	
5	The rated maximum speed of the lift/ escalator	
6	The manufacturer's or designer's rated capacity in weight	

7	The maximum number of passengers lift/ escalator can carry	
8	Weight of the counterweight (applicable in case of lifts only)	
9	The total weight of the lift cage carrying the maximum load (applicable in case of lifts only)	
10	The number, description, weight and size of the supporting cables (applicable in case of lifts only)	
11	The depth of the pit from lowest part of the lift cage when at the lowest floor (applicable in case of lifts only)	
12	Details of the construction of the overhead arrangements with the weight and sizes of the beams (applicable in case of lifts only)	

(Date)

(Signature of the Applicant)