Evacuation Difficulty Index

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Licensing Rules

- North Dakota Administrative Code Chapter 33-03-24.1

  Licensing Rules for Basic Care Facilities in North Dakota

- Section 33-03-24.1-10 Fire safety

Licensing Rules

- 33-03-24.1-10 (1)
- Life Safety Code
  - 1988 edition
  - Chapter 21, Residential Board and Care Occupancy
  - Slow evacuation capability
  - Or a greater level of fire safety

Life Safety Code

- Chapter 21, Residential Board and Care Occupancy

- Evacuation capability
  - ☑ Prompt
  - ☑ Slow
  - ☐ Impractical

Life Safety Code

- Evacuation capability
- Prompt

  Equivalent to the capability of the general population.

Life Safety Code

- Evacuation capability
- Slow

  Capability of the group to move to a point of safety in a timely manner, with some residents requiring assistance from staff.

Evacuation Capability

- NFPA 101M

  Manual on Alternative Approaches to Life Safety

  1988 edition
- Chapter 5

  A Procedure for Determining Evacuation Capability

Evacuation Capability

- STEP 1

  For each resident, complete one copy of Worksheet 5-1, Worksheet for Rating Residents.

Evacuation Capability

- STEP 2

  For each facility complete one copy of Worksheet 5-2, Worksheet for Calculating Evacuation Difficulty Score (E-Score).

Evacuation Capability

- STEP 3

  Determine evacuation difficulty using the E-Score from Step 2.

Step 1

- Rating of residents should be based on commonly observed examples of poor performance.
- Ratings should be based on consultation with someone who has observed the resident on a daily basis.

Step 1

- All persons naturally tend to be less capable on some days, and the ratings should be based on examples of resident performance on a typically "bad" day. Ratings should not be based on rare instances of poor performance.

Risk Factors

- I. Risk of Resistance.

  There is a reasonable possibility that, during an emergency evacuation, the resident may resist leaving the facility.

Risk Factors

- I. Risk of Resistance.

  Unless there is specific evidence that resistance may occur, the resident should be rated as "minimal risk."

Risk Factors

- I. Risk of Resistance.

  Specific evidence of resistance means that staff have been required to use some physical force in the past.

  Resistance may be active or passive.

Risk Factors

- I. Risk of Resistance.
- a) Minimal Risk.

  There is no specific evidence to suggest that the resident may resist an evacuation.

Risk Factors

- I. Risk of Resistance.

- b) Risk of Mild Resistance.

  There is specific evidence that the resident may mildly resist leaving the facility.

Risk Factors

- I. Risk of Resistance.

- c) Risk of Strong Resistance.

  The resident may offer resistance that requires the full attention of one or more staff members.

Risk Factors

- II. Impaired Mobility.

  The resident is physically limited in his or her ability to leave the facility.

Risk Factors

- II. Impaired Mobility.

  The resident is rated according to how easily he or she can leave, given the presence of physical barriers such as stairs, ability to get out of bed or chairs, etc.

Risk Factors

- II. Impaired Mobility.

  The resident should be given credit for being able to use devices that aid in movement such as wheelchairs and walkers.

Risk Factors

- II. Impaired Mobility.
- a) Self-Starting.

  The resident is physically able to start and complete an evacuation without physical assistance.

Risk Factors

- II. Impaired Mobility.
- b) Slow.

  The resident cannot prepare to leave and then travel from the room to an exit in 90 seconds.

Risk Factors

- II. Impaired Mobility.

- c) Needs Limited Assistance.

  The resident may require some initial or intermittent assistance, but can accomplish most of the evacuation without assistance.

Risk Factors

- II. Impaired Mobility.

- d) Needs Full Assistance.

  The resident may require physical assistance from a staff member during most of the evacuation.

Risk Factors

- II. Impaired Mobility.
- d) Very Slow.

  The resident cannot prepare to leave and then travel from the room to an exit in 150 seconds.

Risk Factors

- III. Impaired Consciousness.

  The resident could experience a partial or total loss of consciousness during a fire emergency.

Risk Factors

- III. Impaired Consciousness.

  The resident has experienced some temporary impairment of consciousness of short duration six or more times during the preceding three months.

Risk Factors

- III. Impaired Consciousness.

  Do not count episodes where the loss of consciousness was the result of a temporary medical problem.

Risk Factors

- III. Impaired Consciousness.
- a) No Significant Risk.

  Not subject to loss of consciousness or fewer than six episodes during the preceding three months.

Risk Factors

- III. Impaired Consciousness.

- b) Partially Impaired.

  Had at least six episodes in the preceding three months – resident was able to participate somewhat.

Risk Factors

- III. Impaired Consciousness.
- b) Partially Impaired.

Examples: mild seizures
dizzy spells
intoxication

Risk Factors

- III. Impaired Consciousness.
- c) Totally Impaired.

  Had at least six episodes in the preceding three months – resident requires full assistance from staff.

Risk Factors

- III. Impaired Consciousness.
- c) Totally Impaired.

Examples: severe seizures
fainting spells
intoxication

Risk Factors

- IV. Need for Extra Help.

  There is specific evidence that more than one staff member may be needed to evacuate the resident.

Risk Factors

- IV. Need for Extra Help.

  Two or more persons have been previously needed to assist the resident. The resident could need assistance from two persons in a real fire emergency.

Risk Factors

- IV. Need for Extra Help.

- a) Needs One Staff Member.

  The resident does not need help from two or more persons in a fire emergency.

Risk Factors

- IV. Need for Extra Help.
- b) Needs Limited Assistance from Two Staff Members.

  Requires some initial or intermittent assistance from two persons.

Risk Factors

- IV. Need for Extra Help.
- c) Needs Full Assistance from Two Staff Members.

  Requires assistance from two persons during most of the evacuation.

Risk Factors

- V. Response to Instructions.

  The resident's ability to receive, comprehend and follow through with simple instructions.

Risk Factors

- V. Response to Instructions.

  Residents should be rated on their responses to staff members whose directions they are least likely to follow.

Risk Factors

- V. Response to Instructions.

- a) Follows Instructions.

  The resident can usually receive, comprehend, remember and follow simple instructions.

Risk Factors

- V. Response to Instructions.

- b) Requires Supervision.

  The resident is generally capable of following instructions, but is not dependable.

Risk Factors

- V. Response to Instructions.

- b) Requires Supervision.

  May need to be guided, reminded, reassured, or accompanied during the evacuation.

Risk Factors

- V. Response to Instructions.
- b) Requires Supervision.

  Does not require the exclusive attention of a staff member.

Risk Factors

- V. Response to Instructions.
- b) Requires Supervision.

  This category includes elderly persons with dementia.

Risk Factors

- V. Response to Instructions.

- c) Requires Considerable Attention or May Not Respond.

  The resident may fail to receive, understand or follow through with instructions.

Risk Factors

- V. Response to Instructions.

- c) Requires Considerable Attention or May Not Respond.

  Resident may not respond to instructions or general guidance.

Risk Factors

- V. Response to Instructions.

- c) Requires Considerable Attention or May Not Respond.

  May require most of the attention of a staff member during the evacuation.

Risk Factors

- VI. Waking Response to Alarm.
- Response Probable, unless:

  a) There is no alarm system meeting the Life Safety Code or the alarm is not very loud in the resident's room.

Risk Factors

- VI. Waking Response to Alarm.
- Response Probable, unless:

  b) Medication take at night is different or increased over that take during waking hours.

Risk Factors

- VI. Waking Response to Alarm.
- Response Probable, unless:

  c) Hearing impairment or resident removes hearing aid when sleeping.

Risk Factors

- VI. Waking Response to Alarm.
- Response Probable, unless:

  d) Resident is a sound sleeper.

Risk Factors

- VI. Waking Response to Alarm.
- a) Response probable.

  None of the four conditions is true for the resident.

Risk Factors

- VI. Waking Response to Alarm.
- b) Response not Probable.

  One or more of the conditions is true for the resident.

Risk Factors

- VII. Response to Fire Drills

  Resident's ability to leave the building as demonstrated by the resident's performance during fire drills.

Risk Factors

- VII. Response to Fire Drills

  The resident's ability to make decisions - does not relate to mobility.

Risk Factors

- VII. Response to Fire Drills

  Resident must be trained or instructed in the desired task.

  Resident must demonstrate the desired response in at least three of the last four fire drills.

Risk Factors

- VII. Response to Fire Drills

  If skill has not been tested in four fire drills, resident must demonstrate the desired response during the last two fire drills.

Risk Factors

- VII. Response to Fire Drills

  Any resident who has not been trained using fire drills must be given the higher scores.

Risk Factors

- VII. Response to Fire Drills

- a) Initiates and Completes Evacuation Promptly.

  Ability to start and complete the evacuation without unnecessary delay.

Risk Factors

- VII. Response to Fire Drills

- b) Chooses and Completes Back-up Strategy.

  Ability to select an alternative means of escape if the primary route is blocked.

Risk Factors

- VII. Response to Fire Drills

- c) Stays at Designated Location.

  Resident will stay at a designated safe location during fire drills.

Step 2

- Finding the Staff Shift Score
- Alarm Effectiveness

  Whether smoke detector-activated alarm devices are loud enough to dependably alert staff.

Step 2

- Finding the Staff Shift Score
- Alarm Effectiveness

a) Assured.

b) Not Assured.

Step 2

- Finding the Staff Shift Score
- Staff Availability

  Whether there are circumstances when staff may be less able to respond or may be delayed.

Step 2

- Finding the Staff Shift Score
- Staff Availability

  a) Standby or Asleep.

  b) Immediately Available.

  c) Immediately Available and Close by.

Step 2

- Finding the Staff Shift Score

- a) Standby or Asleep.

  Staff does not have specific duties to assure an immediate response, but otherwise available.

Step 2

- Finding the Staff Shift Score

- b) Immediately Available.

  Staff is required to be available for immediate assistance, but is not in close proximity.

Step 2

- Finding the Staff Shift Score

- c) Immediately Available and Close by.

  Meets conditions for b) and is in close proximity.

Step 3

- Calculation of E-Score

$$\frac{\text{Resident Score} \times \text{Vertical Distance}}{\text{Staff Score}} = \text{E-Score}$$

Step 3

- Level of Evacuation Difficulty

≤ 1.5	Prompt
>1.5 ≤5.0	Slow
>5.0	Impractical