Gravity and Pneumatic Waste and Linen Handling Systems NFPA 82 Inspection Form

PART 1 GRAVITY CHUTES

CHUTE DESIGN AND INSTALLATION

| INTAKE OPENINGS | 1. As a minimum, are chute intake doors installed at alternate floors? | ☐ |
|                 | NFPA 82: 5.1.2 |

| LIMITED ACCESS  | 1. Are linen gravity chutes secured to provide only limited access to authorized personnel? | ☐ |
|                 | NFPA 82: 5.2.1 |

| OFFSETS         | 1. Are gravity metal chute offsets a maximum of 15 degrees? | ☐ |
|                 | 2. Are offsets limited to a maximum of one for every two floors? |
|                 | 3. Are access doors at least 1.2 m (4 ft) above an offset? |
|                 | 4. Is the offset between the highest intake door and the chute termination a maximum of 45 degrees? | ☐ |
|                 | NFPA 82: 5.2.2.2 |

| DIMENSIONS      | 1. Are chutes a minimum of 571 mm (22½ in.) × 571 mm (22½ in.) or 610 mm (24 in.) in diameter? | ☐ |
|                 | NFPA 82: 5.2.2.3 |

| VENTING         | 1. Are vents extended at least 0.92 m (3 ft) above unprotected or combustible construction (Type II (000), Type III, Type IV or Type V)? | ☐ |
|                 | 2. Is the chute vent open to the atmosphere with the same cross sectional areas as the chute? |
|                 | 3. Is the offset between the highest intake door and the top of the vent a maximum of 45 degrees? | ☐ |
|                 | NFPA 82: 5.2.2.4 |

| CONSTRUCTION    | 1. Are metal chutes made of stainless steel, galvanized steel or aluminum-coated steel with no screws, rivets, or other projections on the interior surface? | ☐ |
|                 | 2. Are metal chutes at least 16 U.S. gauge? | ☐ |
|                 | NFPA 82: 5.2.2.7 |

| ENCLOSURE       | 1. Are vertical chutes serving multiple floors enclosed in fire-rated construction? | ☐ |
|                 | a. Is rating 1-hr with 1-hr opening protection for 3 stories or less? |
|                 | b. Is rating 2-hr with 1½-hr opening protection for 4 stories or more? | ☐ |
|                 | NFPA 82: 5.2.3.1 |
### DISCHARGE DOORS
1. Is the bottom of waste chutes protected by automatic or self-closing doors constructed to meet the required fire rating? (UL label and latch are not required.)
2. Is the bottom of linen chutes protected by a UL listed, automatic or self-closing fire door to meet the required fire rating?
3. Are chute discharge doors held open to automatically close (fusible link is acceptable method)?
   - NFPA 82: 5.2.3.2

### INTAKE DOORS
1. Are all intake doors UL listed, automatic or self-closing fire doors providing the required fire rating?
2. Is the area of the intake door for a general access chute limited to:
   a. 1/3 the cross-sectional area of a square chute or
   b. 44 percent of the area of a round chute?
3. Do limited access chutes require a key to access the intake door?
4. Is the area of intake doors to limited access chutes limited as follows:
   a. Waste chute – 2/3 the cross-sectional area of the chute
   b. Linen chute – the cross-sectional area of the chute?
   - NFPA 82: 5.2.3.3

### CHUTE SERVICE OPENING ROOMS
#### SEPARATION
1. Are service openings located within a room or compartment separated from other parts of the building?
   - NFPA 82: 5.2.5

#### ENCLOSURE
1. Is the service opening room enclosed in fire-rated construction as follows:
   a. Fire-rating equal to the rating of the chute, or
   b. Fire-rating at least 1-hr with automatic sprinkler protection?
   - NFPA 82: 5.2.5

#### CLEARANCE
1. Is there at least 152.4 mm (6 in.) clearance between the intake opening and closed service opening room door?
   - NFPA 82: 5.2.5

### CHUTE DISCHARGE ROOMS
#### GE ROOM ENCLOSURE
1. Is the rating of the discharge room at least equal to the rating of the chute enclosure?
2. Are openings into the room adequately protected?
3. Ensure trash chutes do not discharge directly to an incinerator.
   - NFPA 82: 5.2.4

#### SPRINKLER PROTECTION
1. Are sprinklers installed in the chute discharge room in accordance with NFPA 13?
   - NFPA 82: 5.2.6.2
## AUTOMATIC SPRINKLERS

### PROTECTION
1. Are gravity chutes protected internally with sprinklers installed in accordance with NFPA 13?  
   NFPA 82: 5.2.6

### LOCATION OF SPRINKLERS
1. Are sprinklers installed at or above the top service opening?  
2. Are sprinklers installed at alternate floor levels?  
3. Is a sprinkler located at the lowest service level?  
   NFPA 82: 5.2.6

## PART 2 FULL PNEUMATIC WASTE OR LINEN CONVEYING SYSTEMS

### CHUTE DESIGN AND INSTALLATION

#### INTAKE OPENINGS
1. Are chute intake doors installed at minimum of alternate floors?  
   NFPA 82: 5.1.2

#### LOADING STATIONS
1. Are full pneumatic loading stations a minimum of 508 mm (20 in.) in diameter?  
2. Is the inner door designed not to yield and is the door under pressure control?  
3. Is the outer door a UL listed fire door of the appropriate fire rating based on the chute enclosure?  
4. Is the outer door a minimum of 457 mm (18 in.) in diameter and side-hinged?  
5. Is the loading station constructed of at least 14 U.S. gauge stainless or galvanized steel?  
   NFPA 82: 5.3.2.1

#### MULTI-LOADING
1. Can only one inner door be opened at a time?  
   NFPA 82: 5.3.2.2

#### RISER PIPE
1. Are riser pipes a minimum of 508 mm (20 in.) in diameter?  
2. Are metal chutes made of stainless steel, galvanized steel or aluminum-coated steel with no screws, rivets, or other projections on the interior surface?  
3. Are metal chutes at least 16 U.S. gauge?  
4. Is riser pipe flanged, gasketed, and bolted?  
   NFPA 82: 5.3.2.4

#### AIR SOURCE
1. Is the air source the full-diameter of the riser pipe?  
2. Is the air source roof vent and curb, all-weather elbow, or a louver through the side of the building?  
   NFPA 82: 5.3.3.1

#### RISER ENCLOSURE
1. Are risers serving multiple floors enclosed in fire-rated construction?  
   a. Is rating 1-hr with 1-hr opening protection for 3 stories or less?  
   b. Is rating 2-hr with 1½-hr opening protection for 4 stories or more?  
   NFPA 82: 5.3.3.1
### CHUTE DISCHARGE DOORS
1. Is the bottom of waste chutes protected by automatic or self-closing doors constructed to meet the required fire rating? (UL label and latch are not required).
2. Is the bottom of linen chutes protected by a UL listed, automatic or self-closing fire door to meet the required fire rating?
3. Are chute discharge doors held open to automatically close (fusible link is acceptable method)?
   - NFPA 82: 5.2.3.2

### CHUTE INTAKE DOORS
1. Are all intake doors UL listed, automatic or self-closing fire doors to meet the required fire rating?
2. Is the area of the intake door for a general access chute limited to:
   - a. 1/3 the cross-sectional area of a square chute or
   - b. 44 percent of the area of a round chute?
3. Do limited access chutes require a key to access the intake door?
4. Is the area of intake doors to limited access chutes limited as follows:
   - a. Waste chute – 2/3 the cross-sectional area of the chute
   - b. Linen chute – the cross-sectional area of the chute?
   - NFPA 82: 5.2.3.3

### SERVICE LOADING ROOMS
#### SEPARATION
1. Are service openings located within a room or compartment separated from other parts of the building?
   - NFPA 82: 5.3.2.3

#### ENCLOSURE
1. Is the service opening room enclosed in fire-rated construction of at least 1-hr construction with ¾-hr opening protection?
   - NFPA 82: 5.3.2.3

### AUTOMATIC SPRINKLERS
#### PROTECTION
1. Are pneumatic chutes protected internally with sprinklers installed in accordance with NFPA 13?
   - NFPA 82: 5.3.4

#### LOCATION OF SPRINKLERS
1. Are sprinklers installed at or above the top service opening?
2. Are sprinklers installed at alternate floor levels?
3. Is a sprinkler located at the lowest service level?
   - NFPA 82: 5.3.4

### TRANSPORT PIPING
#### CONSTRUCTION
1. Is transport piping a minimum of 406 mm (16 in.) in diameter where materials are not shredded prior to entering the system?
2. Is transport piping made of stainless steel or galvanized steel?
3. Are metal chutes at least 16 U.S. gauge?
   - NFPA 82: 5.3.2.4
**PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES**

**FLOOR ASSEMBLIES**
1. Are automatic fire dampers provided where transport systems penetrate rated floor assemblies?
   - NFPA 82: 5.3.5.2

**INTERLOCK**
1. Is the system designed to shut down when a fire damper closes?
   - NFPA 82: 5.3.5.2

**SHAFT/RISER ASSEMBLIES**
1. Is the piping thickness increased to a minimum of 11 U.S. gauge from within the shaft for a distance of 4 times the pipe diameter beyond the shaft wall?
2. Is the 11 U.S. gauge pipe supported every .92m (3 ft) interval?
   - NFPA 82: 5.3.5.3

**COLLECTOR DISCHARGE AREA**

**DISCHARGE ROOM ENCLOSURE**
1. Is the enclosure of the discharge room at least 2-hr rated?
2. Are openings into the room adequately protected?
   - NFPA 82: 5.3.6

**SPRINKLER PROTECTION**
1. Are sprinklers installed in the discharge room in accordance with NFPA 13?
   - NFPA 82: 5.3.6.2

**PART 3 GRAVITY PNEUMATIC WASTE OR LINEN CONVEYING SYSTEMS**

**CHUTE DESIGN AND INSTALLATION**

**GRAVITY WASTE AND LINEN CHUTE REQUIREMENTS**
1. Does the chute meet the requirements for gravity waste and linen chutes detailed in Part 1?
   - NFPA 82: 5.4.2

**GRAVITY CHUTE STORAGE SECTION SEPARATION**
1. Is a normally closed, 11 U.S. gauge, blade-type damper installed at the bottom of the chute and above the funnel opening, when an open funnel is used as an interface between the gravity chute storage section and the transport discharge damper?
2. Is a discharge damper provided at the point of entry into the transport piping tee?
   - NFPA 82: 5.4.2.2

**SPRINKLER PROTECTION**
1. Is sprinkler protection provided below the last service door on the chute where material is stored at the bottom of the chute and above the riser discharge damper?
   - NFPA 82: 5.3.2.2

**DISCHARGE ROOM PROTECTION**
1. Where the gravity chute has an opening between the chute and the transport pipe, is the opening in a room protected with construction at least equivalent to the fire-rating of the shaft enclosing the chute?
2. Are openings into the room adequately protected?
   - NFPA 82: 5.4.2.4
TRANSPORT PIPING

CONSTRUCTION
1. Is transport piping a minimum of 406 mm (16 in.) in diameter where materials are not shredded prior to entering the system?
2. Is transport piping made of stainless steel or galvanized steel?
3. Are metal chutes at least 16 U.S. gauge?
   NFPA 82: 5.4.3

PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES

FLOOR ASSEMBLIES
1. Are automatic fire dampers provided where transport systems penetrate rated floor assemblies?
   NFPA 82: 5.4.3.2

INTERLOCK
1. Is the system designed to shut down when a fire damper closes?
   NFPA 82: 5.4.3.2

SHAFT/RISER ASSEMBLIES
1. Is the piping thickness increased to a minimum of 11 U.S. gauge from within the shaft for a distance of 4 times the pipe diameter beyond the shaft wall?
2. Is the 11 U.S. gauge pipe supported every .92m (3 ft) interval?
   NFPA 82: 5.4.3.3

COLLECTOR DISCHARGE AREA

DISCHARGE ROOM ENCLOSURE
1. Is the enclosure of the discharge room at least 2-hr rated?
2. Are openings into the room adequately protected?
   NFPA 82: 5.4.4

SPRINKLER PROTECTION
1. Is sprinkler protection provided for rooms or areas where collector for discharge is within or abutting an occupied building in accordance with NFPA 13?
   NFPA 82: 5.4.4.3

PART 4 MAINTENANCE ALL WASTE AND LINEN CHUTES AND TRANSPORT SYSTEMS

DISCHARGE DOORS
1. Are all chute loading and discharge doors maintained clear and unobstructed at all times?
   NFPA 82: 10.2.1

INSPECTION SCOPE AND FREQUENCY
1. Are entire systems, including loading and discharge doors, inspected and maintained not less than annually in accordance with the manufacturer’s instructions?
   NFPA 82: 10.2.2
### DISCHARGE DOOR WITH FUSIBLE LINK

1. If a fusible link is provided, does the inspection of the discharge door arrangement include:
   a. Ensuring fusible link is not painted or coated with excessive dirt or dust?
   b. Evaluation of chains/cables, or other devices to ensure door will close?
   c. Removing the fusible link for testing every 4 years to ensure full closure and positive latching?
   d. Re-installing the fusible link after testing?
   e. Replacing the fusible link if damaged or not operational with same size, temperature and load rating?

   **NFPA 82:** 10.2.2

### RECORDS

1. Is there a signed, written record of the inspection available for review?

   **NFPA 82:** 10.2.3