I. PURPOSE
This procedure establishes the proper steps for completing the annual test for anti-freeze systems at the University.

II. PERSONNEL AFFECTED
This procedure affects the Fire Safety staff. Specifically, for the systems located at the Kornberg Medical Research Building (B-9905), Delmonte Institute (Adjacent to 5-11220) and the Medical Center Annex (Stair 4B100Y, Corridor ceiling adjacent 3B342, room 2B100Y—2 systems, and ceiling vestibule 1B146).

III. DEFINITIONS
**Antifreeze Sprinkler System.** A wet pipe sprinkler system employing automatic sprinklers that are attached to a piping system that contains an antifreeze solution and that are connected to a water supply.

IV. RESPONSIBILITIES
The Fire Safety personnel conducting this test are responsible for following the proper procedures and for contacting Public Safety Dispatch when the test begins and ends.

V. PROCEDURES
A. Obtain the refractometer from the gray/red tool cabinet located in the Fire Safety storage area.
B. Contact Public Safety Dispatch (x5-3333) to inform them that testing is being done and the need to bypass the fire alarm panel in the area where the system is located.
C. Disable each point per the fire alarm disable enable procedures.
D. Proceed to the system to be tested.
E. Close the control valve for the system and remove the plug adjacent to the ½ inch test valve.
F. Using a small cup, slowly open the test valve so that a small amount of solution empties into the cup. Close the test valve.
G. Using the small tube pump on the refractometer, draw solution into the tube.
H. Place a few drops of the solution on to the measuring surface of the refractometer and close View Point Illuminator cover.
I. To take a reading, point the refractometer toward any light source and look into the eyepiece. The scale is reversed from a standard thermometer scale. Readings below zero are on the upper half of the scale. The readings are taken
where the dark and light portions of the scale meet. Use the right hand side of the scale.

J. Once a reading has been obtained record the temperature on the building sprinkler test sheet along with the date of the test.

K. Wipe the measuring surface with a clean cloth or tissue.

L. Replace the plug on the system and open the system control valve.

M. If the temperature obtained is +32 degrees or greater then issue a facilities work order to have the solution changed.

N. Once all systems for the given fire alarm panel have been tested, and control valves have been re-opened, return to the fire alarm panel and restore the panel to normal. Verify with Public Safety that they show the fire alarm is normal.

VI. REFERENCES

   NFPA 13 Standard for the Installation of Sprinkler Systems
   NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems
   Fire Alarm Procedure Documents—
   Kornberg Medical Research Building Simplex 4100U
   Delmonte Institute Simplex 4100U
   Medical Center Annex Simplex 4100U
   Sprinkler Test Reports—
   Kornberg Medical Research Building
   Delmonte Institute (MRBX)
   Medical Center Annex

VII. APPENDICES/FORMS

<table>
<thead>
<tr>
<th>Building Name</th>
<th>Location</th>
<th>Rooms/Areas protected</th>
<th>System Mixture</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC Annex</td>
<td>Mechanical Room 2&lt;sup&gt;nd&lt;/sup&gt; floor (2A228) at West End</td>
<td>Wood frame garage (west garage) adjacent to Annex</td>
<td>50/50 Glycerin</td>
<td>Minus15F</td>
</tr>
<tr>
<td>MC Annex</td>
<td>Mechanical Room 2&lt;sup&gt;nd&lt;/sup&gt; floor (2A228) at East End</td>
<td>Metal frame garage (east garage) adjacent to Annex</td>
<td>50/50 Glycerin</td>
<td>Minus 15F</td>
</tr>
<tr>
<td>MC Annex</td>
<td>4B100W stairs</td>
<td>Top of elevator shaft</td>
<td>50/50 Glycerin</td>
<td>Minus 15F</td>
</tr>
<tr>
<td>MC Annex</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Floor Corridor by B342</td>
<td>Same elevator shaft portion between 3&lt;sup&gt;rd&lt;/sup&gt; floor and top of same</td>
<td>50/50 Glycerin</td>
<td>Minus 15F</td>
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<tr>
<td>MC Annex</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Floor Vestibule (1B146)</td>
<td>Loading dock area</td>
<td>50/50 Glycerin</td>
<td>Minus 15F</td>
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UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: FS026
Title: Anti-Freeze System Test Procedure
Revision No.: 4
Approved by: Mark Cavanaugh
Date: 10/10/2022
Prepared by: Mark Militello
Page 3 of 3
No changes – 10/10/2022

EH&S Department Use Only: _X_ Yes _No
UR Website: Yes Public No Restricted

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</tr>
</thead>
<tbody>
<tr>
<td>KMRB</td>
<td>B-9905 Mechanical Room – Glycol Loop</td>
<td>Basement Plenum area</td>
<td>50/50 GL48</td>
<td>Minus 15F</td>
</tr>
<tr>
<td>Delmonte Institute (MRBX)</td>
<td>Penthouse Mezzanine - Glycol Loop</td>
<td>Emergency Generator Room</td>
<td>50/50 GL48</td>
<td>Minus 15F</td>
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VIII. REVISION HISTORY

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<tr>
<th>Date</th>
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<th>Description</th>
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<tr>
<td>1/18/2011</td>
<td>New</td>
<td>Initial development of this policy</td>
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<tr>
<td>1/17/2013</td>
<td>1</td>
<td>Addition of table under Appendices/Forms</td>
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<tr>
<td>11/20/2018</td>
<td>2</td>
<td>Clarified multiple steps</td>
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<tr>
<td>10/3/2019</td>
<td>3</td>
<td>Addition of details for locations</td>
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<tr>
<td>10/10/2022</td>
<td>4</td>
<td>Triennial Review – No changes</td>
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