Archival materials that need to be in frozen storage for long-term preservation:

- Nitrate motion picture film
- Nitrate cut film
- Acetate B&W motion picture film
- Acetate color motion picture film
- Polyester color motion picture film
- Acetate B&W cut film that scores a 1.5 or higher on the A-D Strip test\(^1\)
- Acetate color cut film
- Polyester color cut film
- Color photo prints
- Color transparencies/slides
- Ink jet prints\(^2\)

Other archival materials – such as magnetic media – benefit from cool storage. Archival materials that should be stored at the LSF instead of frozen storage are:

- Magnetic media (e.g. reel-to-reel audio, cassette tapes, videotapes)
- Glass plates (e.g. glass plate negatives, lantern slides)
- Polyester B&W motion picture and cut film
- B&W photo prints

Archival materials that CANNOT be frozen due to damage risks:

- CDs
- DVDs
- Mini-Discs

In general, all archival materials will benefit from storage at the LSF versus storage at room temperature as the table below demonstrates:

<table>
<thead>
<tr>
<th>Room (70°F/50% RH)</th>
<th>Cool (50°F/30% RH)</th>
<th>Cold (40°F /30% RH)</th>
<th>Frozen (32°F /30% RH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years</td>
<td>100 years</td>
<td>230 years</td>
<td>540 years</td>
</tr>
</tbody>
</table>

\(^1\) Archival processing for acetate film collections should include a quick A-D Strip test to determine its condition – the test can be completed overnight. Scores of 1 and below should be sent to the LSF for storage.

\(^2\) Ink jet prints are put in the frozen category mostly because they are sensitive to gaseous pollutants; the LSF for storage is also OK for these if freezer space is limited.