## Environmental Standards for Museum Property

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<td><strong>Temperature</strong>&lt;br&gt;65-74 degrees °F</td>
<td>All types of museum property, but especially:&lt;br&gt;Metals&lt;br&gt;Art&lt;br&gt;Documents (paper and other)&lt;br&gt;Human remains</td>
<td>Significant damage to museum property usually occurs as a result of expansion and contraction of materials caused by rapid changes in and extreme temperatures.</td>
<td>Keep storage areas that contain museum property cool and dry. If a storage area is subject to rapid temperature change, move the objects to a more temperature stable area.</td>
<td>Track temperature with hygrothermographs or museum data loggers</td>
<td>Contact your: Regional Historic Preservation Officer (RHPO), National Curator, Center Curator&lt;br&gt;Check out our museum property online course or other DOI-sponsored training.</td>
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<td><strong>Relative Humidity (RH)</strong>&lt;br&gt;below 65%; above 35%</td>
<td>All types of museum property, but especially:&lt;br&gt;Metals&lt;br&gt;Art&lt;br&gt;Documents (paper and other)&lt;br&gt;Human remains</td>
<td>Maintain relative humidity at stable levels to avoid extreme levels and wide fluctuations. Acceptable ranges and limits of relative humidity must be established for each unit based on the local climate, the nature and condition of the materials in the collection, the relative humidity levels to which the materials have been acclimatized, and the structure housing museum property.</td>
<td>Reduce fluctuations in relative humidity; it should not exceed fluctuations of 3% per month. Maintain relative humidity levels below 65% RH to reduce the potential for mold growth and above 35% RH to maintain the moisture content of organic materials.</td>
<td>museum data loggers</td>
<td>Contact your: RHPO, National Curator, Center Curator&lt;br&gt;Check out our museum property online course or other DOI-sponsored training.</td>
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<td><strong>Light</strong>&lt;br&gt;50 lux (5 foot-candles)&lt;br&gt;200 lux (20 foot-candles)&lt;br&gt;300 lux (30 foot-candles)</td>
<td>All types of museum property, but especially: Any objects that are on display or used in exhibits and documents (paper, photographs, etc.)</td>
<td>50 lux (5 foot-candles) for especially light-sensitive materials (e.g., dyed and treated organic material, textiles, watercolors, tapestries, prints and drawings, manuscripts, leather, wallpapers, natural history specimens such as botanical specimens, fur and feathers, and certain types of</td>
<td>Most of the museum property at duty stations should be kept out of any direct light source. This is most critical for the kinds of objects identified in column 2. No light for objects in a storage facility. If the storage space uses or admits a lot of light, consider moving the museum objects.</td>
<td>Lighting FAQ</td>
<td>Contact your: RHPO, National Curator, Center Curator&lt;br&gt;Check out our museum property online course or other DOI-sponsored training.</td>
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<td>200 lux (20 foot-candles) for undyed and untreated organic materials, oil and tempera paintings, and finished wooden surfaces.</td>
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<td>Other materials are generally less sensitive to light and may be exposed to higher levels, up to a maximum of 300 lux (30 foot-candles). However, when these materials are housed with light-sensitive materials, it is important to maintain levels appropriate for the most sensitive materials.</td>
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<td>Ultraviolet (UV) Radiation less than 75 microwatts per lumen</td>
<td>All types of museum property, but especially: Any objects that are on display or used in exhibits and documents (paper, photographs etc.)</td>
<td>Units must monitor and record UV radiation from all sources. If the UV radiation level exceeds 75 microwatts per lumen, UV-filtering material must be installed between the light source and museum property. Levels must be monitored and recorded to ensure that the filtering material is effective.</td>
<td>Most light gives off UV radiation and heat. Units should make sure that any lights that are used around museum exhibits or in storage areas are filtered to reduce UV radiation or changed to a light source that emits less UV radiation.</td>
<td>Lighting FAQ</td>
<td>Contact your: RHPO, National Curator, Center Curator</td>
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<td>Pests</td>
<td>All types of museum property</td>
<td>An Integrated Pest Management (IPM) plan must be established and implemented in all spaces housing museum property to protect the property from pest damage and to reduce the amount of pesticides used. An IPM plan is required in 411 DM</td>
<td>Monitor areas where museum property is stored. Use traps or visual monitoring and record any pests that are encountered. If objects are stored in a high traffic area for pests, or in areas with reduced temperature and humidity control, move the objects to a more</td>
<td>National Park Service (NPS) Museum Pest Guidance Service Pest Management policy (569 FW 1)</td>
<td>Contact your: RHPO, National Curator, Center Curator</td>
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11/02/17
New Exhibit

LIBRARY AND MUSEUM SERVICES
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<td>location</td>
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<td>for all units housing museum property.</td>
<td>environmentally sound location or add in the appropriate safeguards against the pests.</td>
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<td>other DOI-sponsored training.</td>
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| Security     | All types of museum property | Access to storage, exhibit, and administrative spaces housing museum property must be secured to prevent unauthorized entry and use. Where applicable, the unit must use a visitor and researcher sign-in log to record the visitor’s name, address, the date and time entered, the time left, and the purpose for access to the collection. Units will prepare procedures for opening, closing, and using storage areas and exhibits. If appropriate to the collection, mechanical and electronic systems must be in place to prevent unauthorized entry. | Develop process for access to exhibits and collections. Monitor who has access and review as needed. If collections are in an area that does not have security monitoring, move them to an area that does. Include information on security in the unit’s Emergency Museum Management Plan. | Smithsonian guidance on museum security  
NPS Museum Handbook Security and Fire and Emergency planning guidance  
Service Emergency Management policy (090 FW 1 and 2)  
NPS Sample Museum Emergency Management Plan | Contact your:  
RHPO, National Curator, Center Curator  
Check out our museum property online course or other DOI-sponsored training. |
| Fire Protection | All types of museum property | Units are required to install appropriate systems, structures, and equipment to detect and suppress fire in storage areas and exhibits. Museum records must be stored in an appropriate fire- and burglary-resistant container or vault, and locked when not in use. Flammable liquids must not be stored in a museum property storage area. | Monitor any areas that exhibit or house museum collections for fire/heat changes. Consider moving any collections stored in un-monitored locations to those locations that are monitored. Include information on fire protection in the unit’s Emergency Museum Management Plan. | NPS Museum Handbook Security and Fire guidance  
NPS Sample Museum Fire Protection Plan | Contact your:  
RHPO, National Curator, Center Curator  
Check out our museum property online course or other DOI-sponsored training. |
| Housekeeping  | All types of museum property | Museum property storage areas and exhibits must be cleaned on a regular schedule. Smoking, | Monitor areas and keep them clean. If your exhibit or storage area is close to a common area or an eating | Sample Museum Housekeeping Plan from Minnesota | Contact your:  
RHPO, National Curator, |
| Standard | Applies to: | Remember: drinking, eating, and live plants are prohibited in storage and exhibit areas. Units must prepare general procedures on handling and housekeeping in a Housekeeping Plan. | What to do: area, make sure all refuse is removed daily. Maintain a regular janitorial schedule for these areas. Controlled access for janitorial staff is advised. Maintenance should include regular updates to any filters (HVAC). | Tools: Historical Society | More help? Center Curator Check out our museum property online course or other DOI-sponsored training. |