

## TRAINING UPDATE

<b>Lab Location:</b>	FWMC, SGMC, WOMC	<b>Date Implemented:</b>	1/20/2026
<b>Department:</b>	Blood Bank	<b>Due Date:</b>	2/6/2026

### DESCRIPTION OF PROCEDURE REVISION

**Name of procedure:**

Humidity Monitoring of Blood Bank Equipment

**Description of change(s):**

New procedure for monitoring humidity in the blood bank.

Acceptable Range:  $\geq 15\%$  or  $\leq 80\%$

Action Range:  $\leq 25\%$  or  $\geq 70\%$

1. Record Min/Max humidities daily
2. Clear the memory of the hygrometer
  - a. Press the Start/Stop button for 5 seconds to bring the device to STOP MODE
  - b. Press the Start/Stop button for 5 seconds a second time to bring the device to RUN MODE

Action must be taken when the humidity reaches  $\leq 25\%$  or  $\geq 70\%$

- Notify facilities that humidity is nearing an unacceptable range
- Notify the Admin on call
- Monitor and document humidity every 4 hours
- Document corrective actions

If the humidity goes outside of the acceptable range of 15-80%,

- Notify the BB Manger and Medical Director immediately
- Cease using equipment that is affected by the humidity range immediately unless the Medical Director approves use
- Document all actions

## SGMC.BB 5001 Humidity Monitoring of Blood Bank Equipment

Copy of version 1.0 (approved and current)

Last Approval or  
Periodic Review Completed 1/19/2026

Next Periodic Review  
Needed On or Before 1/19/2028

Effective Date 1/19/2026

Controlled Copy ID 593946

Location SGMC & WOMC BB vol 5 and  
FWMC as appropriate

Organization Adventist HealthCare

### Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	1/19/2026	1.0	 Senda Beltaifa MD	
Approval	BB approval	1/19/2026	1.0	Stephanie Codina	

### Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.0	Approved and Current	Initial version	1/19/2026	1/19/2026	Indefinite

Adventist HealthCare  
Site: Shady Grove Medical Center, White Oak Medical Center,  
Fort Washington Medical Center

Title: Humidity Monitoring of Blood Bank Equipment

Non-Technical SOP

<b>Title</b>	<b>Humidity Monitoring of Blood Bank Equipment</b>	
<b>Prepared by</b>	Stephanie Codina, Boris Njeambosay	Date: 1/15/2026
<b>Owner</b>	Stephanie Codina	Date: 1/15/2026

<b>Laboratory Approval</b>		
<b>Print Name and Title</b>	<b>Signature</b>	<b>Date</b>
<i>Refer to the electronic signature page for approval and approval dates.</i>		
Local Issue Date:		Local Effective Date:

**TABLE OF CONTENTS**

1.	PURPOSE.....	1
2.	SCOPE.....	1
3.	RESPONSIBILITY .....	1
4.	DEFINITIONS .....	2
5.	PROCEDURE.....	2
6.	RELATED DOCUMENTS .....	3
7.	REFERENCES .....	4
8.	REVISION HISTORY .....	4
9.	ADDENDA AND APPENDICES.....	4

- 1. PURPOSE**  
All test systems must operate within the manufacturer’s specified temperature and humidity ranges. This procedure outlines the temperature and humidity requirements for blood bank equipment and provides instructions for temperature and humidity monitoring using the Traceable GO™ Datalogging Thermometer/Hygrometer.
- 2. SCOPE**  
This procedure applies to the temperature and humidity ranges for blood bank equipment.
- 3. RESPONSIBILITY**  
All blood bank staff members must understand and adhere to this procedure for monitoring humidity for blood bank equipment.

Adventist HealthCare  
 Site: Shady Grove Medical Center, White Oak Medical Center,  
 Fort Washington Medical Center

Title: Humidity Monitoring of Blood Bank Equipment

#### 4. DEFINITIONS

**Hygrometer**—A device that measures the amount of water vapor in the air, or humidity. We use NIST-traceable hygrometers or a hygrometer that has been verified against a NIST-traceable hygrometer prior to being placed into use.

#### 5. PROCEDURE

##### Acceptable Ranges

Equipment	Description	Temperature Range	Humidity Range
Beckman Coulter StatSpin Express 3	Centrifuge	2-40°C	0-80%
BioSynergy Incubator	HemoTemp Activator	15-40°C	0-80%
Fisher Isotemp	Heatblock	10-30°C	0-80%
Helmer DH8	Plasma Thawer	15-32°C	0-80%
Helmer IB-125	Refrigerator	15-32°C	0-80%
Helmer IB-256	Refrigerator	15-32°C	0-80%
Helmer IPF-125	Freezer	15-32°C	0-80%
Helmer PC-100 Pro	Platelet Rotator	15-35°C	0-80%
Helmer UltraCWII	Cell Washer	5-40°C	0-80%
Hettich EBA21	Serofuge	2-40°C	0-80%
Hettich EBA280	Serofuge	2-40°C	0-80%
Ortho Vision Swift	Analyzer	18-30°C*	15-85%
Ortho Workstation	Manual Gel Equipment	15-30°C	15-85%
RadSource RS3400	Irradiator	17-28°C	0-90%

\*The temperature range for Le<sup>a</sup> antigen typing only is 18-23°C

##### Daily Humidity Readings

Step	Action
1	Blood bank staff members use the TraceableGO Datalogging Thermometer/Hygrometer to monitor humidity.
2	Record the humidity daily. A. Verify that the battery level is not below 10% (a flashing LCD battery display). The device is inaccurate when the battery display is empty and flashing. Change the batteries when this is noted. B. Record the minimum and maximum humidity readings. Ensure both readings are within the acceptable range. Acceptable range: $\geq 15\%$ to $\leq 80\%$ Action range: $\leq 25\%$ to $\geq 70\%$

Adventist HealthCare  
 Site: Shady Grove Medical Center, White Oak Medical Center,  
 Fort Washington Medical Center

Title: Humidity Monitoring of Blood Bank Equipment

Step	Action
3	<p>Reset the Min/Max values of the hygrometer.</p> <p>A. Press the Start/Stop button for about 5 seconds to bring the device to the STOP MODE.</p> <p>B. Press the Start/Stop button for about 5 seconds a second time to bring the device to the RUN MODE.</p>

### Out of Range Humidity

Step	Action
1	<p><b>Action Ranges <math>\leq 25\%</math> to <math>\geq 70\%</math></b></p> <p>Action ranges are established to alert staff when the humidity is near an unacceptable range so actions can be taken before the humidity reaches an unacceptable level.</p> <ol style="list-style-type: none"> <li>1. Notify the facilities department that the humidity is nearing an unacceptable range. Open a ticket and ask them to intervene.</li> <li>2. Notify the administrator on call that the humidity range is reaching unacceptable levels.</li> <li>3. Monitor and document the humidity hourly until it is in range and outside the action range. Then document every 4 hours for 24 hours. You can return to daily documentation if the humidity remains outside the action range. Reset the hygrometer per instructions above after each reading.</li> <li>4. Document all corrective actions.</li> </ol>
2	<p><b>Unacceptable Ranges <math>&lt; 15\%</math> or <math>&gt; 80\%</math></b></p> <ol style="list-style-type: none"> <li>1. Notify the Blood Bank Manager and Medical Director immediately.</li> <li>2. Determine which equipment is affected based on the humidity range. Refer to the Acceptable Ranges table above.</li> <li>3. Follow instructions given by the Medical Director.</li> <li>4. Monitor and document the humidity hourly until it is in range and outside the action range. Then document every 4 hours for 24 hours. You can return to daily documentation if the humidity remains outside the action range. Reset the hygrometer per instructions above after each reading.</li> <li>5. Document the date and time when testing is ceased and/or equipment is removed from service.</li> <li>6. Document all corrective actions taken.</li> <li>7. Document the date and time when testing is resumed and/or equipment is returned to service.</li> </ol>

## 6. RELATED DOCUMENTS

AG.F236 Daily Temperature Quality Control, Blood Bank

AG.F739 Blood Bank Manual Humidity Log

Adventist HealthCare  
Site: Shady Grove Medical Center, White Oak Medical Center,  
Fort Washington Medical Center

Title: Humidity Monitoring of Blood Bank Equipment

7. REFERENCES

TraceableGO DataLogger Instructions, 92-6535-00, Rev 0.013118. Cole-Pamer. Vernon Hills, IL.

Instructions for Use StatSpin Express 3 Centrifuge Model Number M502-22, PN 55-005187ED (December 2021). Beckman Coulter, Inc. Brea, California.

FisherBrand Digital Drybath, 000853V2 03/06/18. Thermo Fisher Scientific. Waltham, MA.

Biosynergy Manual MBH\_001. Operation Manual for Hemotemp II Activator: A single-temperature control multiple block heater. Model MBH001BIO. Biosynergy: Elk Grove Village, IL.

Plasma Thawing System Operation Manual, 360094-1/M. Helmer Scientific. Noblesville, IN.

Helmer Refrigerator Operation Manual, i.Series and Horizon Series, 360127-1/A. Helmer Scientific. Noblesville, IN.

Helmer Scientific i.Series and Horizon Series Freezer Instructions for Use, 360416/E. Helmer Scientific. Noblesville, IN.

Helmer Scientific Pro Line Platelet Storage Instructions for Use, 360415/E. Helmer Scientific. Noblesville, IN.

Helmer Scientific Automatic Cell Washing System—UltraCW II Operation Manual, 360386/E. Helmer Scientific. Noblesville, IN.

Hettich Centrifuge EBA21, AB1004en, rev 12/09. Andreas Hettich GmbH. Tuttlingen, Germany.

Hettich Operating Instructions EBA280/280S, AB1101en, rev 9/2/25. Andreas Hettich GmbH. Tuttlingen, Germany.

Ortho Vision ID-MTS Gel Cards Reference Guide, J40050EN, 11/1/23. Ortho Clinical Diagnostics. Raritan, NJ.

Ortho Workstation Reference Guide ID-MTS Gel Cards, Pub J55700Enna, 5/31/17. Ortho Clinical Diagnostics. Raritan, NJ.

RS3400 Operator’s Manual, 2797, Rev 7, 2019. Rad Source Technologies, Inc. Buford, GA.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By

9. ADDENDA AND APPENDICES  
NA



Action Range: <20% or >70%

[illegible]

Reviewed By: \_\_\_\_\_