



**US Environmental Protection Agency  
Office of Pesticide Programs**

**Office of Pesticide Programs  
Microbiology Laboratory  
Environmental Science Center, Ft. Meade, MD**

**Standard Operating Procedure for  
Monitoring Environmental Parameters of  
Incubators Refrigerators, Freezers,  
Laboratories and Sample Storage Rooms**

**SOP Number: QC-05-05**

**Date Revised: 09-17-08**

EPA/OPP MICROBIOLOGY LABORATORY  
ESC, Ft. Meade, MD

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for  
Monitoring Environmental Parameters of Incubators, Refrigerators, Freezers, Laboratories and  
Sample Storage Rooms

SOP Number: QC-05-05

Date Revised: 09-17-08

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1.0 SCOPE AND APPLICATION:

- 1.1 This SOP describes the operation and maintenance of the Environmental Monitoring and Alarm System (EMAS) which is a computer-based system designed to collect environmental data electronically for incubators, refrigerators, freezers, laboratories and sample storage rooms. Data is collected through a network of wireless environmental monitoring devices that use radio frequency to transmit and receive data about current environmental conditions.
- 1.2 This SOP describes how to archive data generated by the EMAS.
- 1.3 This SOP also describes the procedure for the manual collection and recording of environmental data in the event that the EMAS is malfunctioning.

2.0 DEFINITIONS:

- 2.1 ASTM = American Society for Testing and Materials
- 2.2 NIST = National Institute of Standards and Technology
- 2.3 Input # = EMAS number designation for probe which collects environmental data.
- 2.4 Unit # = Microbiology Laboratory Branch (MLB) number designation for each piece of equipment (incubator, refrigerator or freezer) for which environmental data is collected.
- 2.5 Target Temperature = Temperature prescribed in Microbiology Laboratory SOPs or research protocols for incubators, refrigerators, freezers, laboratories and sample storage rooms.
- 2.6 Period-End Alarm Limits = Exclusive range of environmental measurement limits (e. g., temperatures, percent humidity, percent CO<sub>2</sub>, etc.) which are set programmatically in the EMAS system which define whether a probe is within the normal (acceptable) range. If a probe is outside the normal range, it is in alarm status.
- 2.7 ESC = Environmental Science Center.

3.0 HEALTH AND SAFETY: Not applicable

4.0 CAUTIONS:

- 4.1 If an incubator, refrigerator or freezer is known to be empty, the EMAS alarm may be inhibited.
- 4.2 The alarm for laboratory room temperature sensors (not including sample storage rooms) may be inhibited for a night, weekend or other non-work day (holiday, snow day, etc) since recording temperature of these areas during non-work hours is not critical..

5.0 INTERFERENCES:

- 5.1 When an EMAS sensor or the entire EMAS is not functioning, follow the procedures listed in Section 10.5.

6.0 PERSONNEL QUALIFICATIONS:

- 6.1 Lab personnel need to be familiar with the operation of the EMAS. Most importantly, lab personnel should be knowledgeable about printing and reading the EMAS Specified Period Averages Report (Highs, Lows, and Averages Report for a specified time period, see example in Attachment 1).
- 6.2 Selected lab personnel will be authorized to manage and retrieve data.

7.0 SPECIAL APPARATUS AND MATERIALS:

- 7.1 The EMAS is a computer-based system which monitors several types of inputs, analyzes for outputs outside the established acceptable range and ensures that the appropriate lab staff members are notified by telephone when the measured parameter is outside of its acceptable range. The EMAS is loaded on a stand alone computer (EMAS Computer) in Room B209 and is password protected. The system is on the building's backup power system and also has a six hour battery backup.
- 7.2 The EMAS probes are placed in incubators, refrigerators, freezers, laboratories and sample storage rooms managed by the Microbiology Laboratory Branch with the exception of room D122.
- 7.3 Incubators: The target temperature is consistent with the work being performed and is set as follows:
- between 29°C and 31°C with alarm limits between 28°C and 32°C;
  - between 35°C and 37°C with alarm limits between 34°C and 38°C;

- between 41°C and 43°C with alarm limits between 40°C and 44°C; and
- between 54°C and 56°C with alarm limits between 53°C and 57°C.

7.4 Refrigerators: The target temperature will be between 2°C and 5°C with alarm limits between 1°C and 6°C.

7.5 Freezers: The target temperatures and alarm limits are consistent with the work being performed and are set as follows:

- between -20°C and -10°C;
- between -25°C and -15°C; and
- between -85°C and -75°C.

7.6 Laboratories and Sample Storage Rooms: The target temperatures will be between 15°C and 25°C with alarm limits between 14°C and 27°C, and the target humidity (standard humidity ranges for this facility) and alarm limits will be between 10% and 75%.

7.7 In the event when the EMAS or a sensor is not working:

7.7.1 Thermometers (see SOP EQ-02, Calibration of Thermometers) are used to monitor temperatures of individual incubators, refrigerators and freezers.

7.7.2 Humidity/temperature meters are used to monitor temperature and humidity of rooms.

## 8.0 INSTRUMENT OR METHOD CALIBRATION:

8.1 The EMAS sensors are calibrated yearly against NIST traceable instruments through a service contract with a reputable vendor. The calibration certificates are kept on file in room B209 for the EMAS instruments.

8.2 The accuracy point check of the thermometers is performed according to SOP EQ-02, Calibration of Thermometers, when needed.

8.3 The humidity/temperature meters are calibrated annually by an ISO 17025 accredited vendor laboratory.

## 9.0 SAMPLE HANDLING AND STORAGE: Not applicable

## 10.0 PROCEDURE AND ANALYSIS:

- 10.1 The EMAS Specified Period Averages Report (Highs, Lows, and Averages Report for a specified time period, see example in Attachment 1) will be printed in the morning for each calendar day. This report will reflect the status of the system from 8:00 a.m. of the previous day to 8:00 a.m. of the current day. This report will be printed for each calendar day. For weekends, holidays and days when the ESC is closed for any reason, the EMAS Specified Period Averages Report will be printed on the next working day for each 24 hour period starting at 8:00 a.m. and ending at 8:00 a.m. the next day. The Input Reading Graphs may also be printed for a specific input for a current day if there is a need to look at real-time data due to the critical nature of a study. A report printed in this situation does not need to be filed.
  - 10.2 Assigned analysts will review the report, focusing on the Specified Period Averages Report for inputs 1 through 45. Any averages which are underlined are outside of the period-end alarm limits and will be noted in the Environmental Monitoring and Alarm System Incident Log Form (Form 16.1) and the corrective action taken (temperature of unit adjusted, door closed tightly, etc.). The report should be initialed and dated and filed in a notebook in B209.
  - 10.3 When an analyst is contacted by telephone that a sensor is out of period-end alarm limit range, follow the instructions in Attachment 2 (EMAS: Instructions for Telephoned Alarms) to inhibit or reset the probe.
  - 10.4 A notation of significant incidents involving temperatures or humidity being out of range or problems with the EMAS will be entered into the Environmental Monitoring and Alarm System Incident Log (Form 16.1) which is kept in a notebook in B209. The analyst will enter the EMAS input number, unit number, room number, incident description, action taken, and initial and date the entry.
  - 10.5 When an EMAS sensor or the entire EMAS is not functioning, the temperature of the affected instruments will be recorded manually by reading either thermometers or the humidity/temperature meters once daily each working day, excluding holidays and days when the ESC is closed for any reason and recording the data on the appropriate Incubator/Refrigerator/Freezer Manual Temperature Recording Form (Form 16.2) or Sample Storage Room Manual Temperature/Humidity Recording Form (Form 16.3). On weekends, holidays and days when the ESC is closed, the reason may be noted why the temperature was not recorded under "Maintenance and Notes" on the form.
- 11.0 DATA ANALYSIS/CALCULATIONS: None
- 12.0 DATA MANAGEMENT/RECORDS MANAGEMENT:

- 12.1 The EMAS Specified Period Averages Report will be printed on a daily basis. For weekends, holidays and days when the ESC is closed for any reason, the report should be printed on the next working day. The reports are filed in a notebook in room B209.
- 12.2 The EMAS Incident Log (see Form 16.1) is kept in a notebook in room B209.
- 12.3 The incubator, refrigerator, freezer and sample storage room temperature record form (Form 16.2) for manual recording (when an EMAS or the entire EMAS is not functioning) are kept in room B209.
- 12.4 Completed report forms, logs and temperature record forms are archived on a yearly basis in notebooks kept in secured file cabinets in room D217. Archived data are subject to OPP=s official retention schedule contained in SOP ADM-03, Records and Archives.
- 12.5 A list of MLB incubators, refrigerators and freezers will be maintained electronically using a Microsoft Word table. A hard copy (Attachment 3) of the updated list with effective dates will be filed in the front of the notebook containing the EMAS Specified Period Averages Report.

13.0 QUALITY CONTROL:

- 13.1 For quality control purposes, the required information is documented on the appropriate forms.
- 13.2 The EMAS sensors are calibrated yearly against NIST traceable instruments through a service contract with a reputable vendor. The correction factors are entered into the system by the vendor's technical staff for accuracy.
- 13.3 In the event when the EMAS or a sensor is not working, thermometers, if needed, are point checked against a NIST traceable thermometer. A label displaying the correction factor is placed around the top of the corresponding thermometer. This procedure is described in SOP EQ-02, Calibration of Thermometers. The point check calibration records of thermometers are maintained in a notebook, which is archived in the laboratory=s file room D217.
- 13.4 The NIST traceable thermometers and temperature/humidity meters are calibrated annually by an ISO 17025 accredited company. The calibration certificates for the NIST traceable thermometers are maintained in a notebook archived in the laboratory's file room D217.

14.0 NONCONFORMANCE AND CORRECTIVE ACTION:

- 14.1 Any deviation from the standard procedures will be documented in the Environmental Monitoring and Alarm System Incident Log (Form 16.1) and investigated. The reasons for any difficulties achieving and maintaining the target temperature will be determined and the appropriate corrective action will be taken by the laboratory staff. If the problem cannot be determined or corrected, a service technician will be called in to evaluate the situation and to initiate the service on the equipment.
- 14.2 If the temperature or humidity of the sample storage room or area is not within the target temperature or humidity range, building authorities will be contacted to initiate adjustments/repairs to the air supply system.
- 14.3 If the temperature or humidity of the sample storage room or area deviates significantly from target temperature or humidity ranges for an extended period, Office of Enforcement and Compliance Assurance (OECA) may be contacted for advice on sample retention/disposal.
- 14.4 Disaster Recovery Plan: The EMAS monitoring devices use small, low voltage batteries as back-up power and are unaffected by power loss. The monitoring devices are supported by repeaters which help transmit data from the probes back to the EMAS computer which converts the data into information. The repeaters have a 24 hour battery backup to prevent data loss in the event of a disaster. The EMAS computer, which is on the ESC emergency back-up power, has a battery back-up that will last a minimum of 4 hours and up to 24 hours. When the battery back-up on the EMAS computer is engaged, a telephone alarm will be triggered. In addition to the battery back-ups, the EMAS daily backs up all data and files needed for the EMAS to function to a thumb drive plugged into the EMAS computer.

15.0 REFERENCES:

- 15.1 Rees Scientific Centron Environmental Control and Monitoring System User Manual located in room B209.
- 15.2 Rees Scientific Centron Environmental Control and Monitoring System Validation Protocol located in room B209.
- 15.3 Rees Scientific Monitoring Instrumentation Access Control located in room B209.

16.0 FORMS AND DATA SHEETS:

16.1 Environmental Monitoring and Alarm System Incident Log Form

16.2 Incubator/ Refrigerator/ Freezer Manual Temperature Recording Form

16.3 Sample Storage Room Manual Temperature/Humidity Recording Form

ATTACHMENTS

Attachment 1: Example of EMAS Specified Period Averages Report

Attachment 2: EMAS: Instructions for Telephoned Alarms

Attachment 3: List of MLB Incubators, Refrigerators, Freezers and Sample Storage  
Rooms Covered by EMAS



16.2 Incubator/Refrigerator/Freezer Manual Temperature Recording Form  
 OPP Microbiology Laboratory

Month / Year: _____ / _____		Laboratory # / Inc/Ref/Fre ID: _____ / _____		
Acceptable Temp. Range: _____		Thermometer ID / Correction Factor: _____ / _____ EC		
Day	Time/ Init.	Temp.*	Adjustments Necessary	Maintenance and Notes
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

\* Corrected temperature recorded

16.3 Sample Storage Room Manual Temperature/Humidity Recording Form  
 OPP Microbiology Laboratory

Month / Year: _____ / _____		Target Temperature: 20 $\pm$ 5 $^{\circ}$ C		
Room No.: _____		Thermometer ID/Correction Factor: _____ / _____ EC		
Day	Time/Initials	Temperature	Humidity	Notes /Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
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31				

# Attachment 1: Example of EMAS Specified Period Averages Report OPP Microbiology Laboratory



Environmental Protection Agency  
701 Mapes Road  
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Page 1

Printed: 9/17/08 - 9:22 AM

By: myanch02

## SPECIFIED PERIOD AVERAGES REPORT

NODE: Node 1

Input	No.	9/16/08 8:00 AM through 9/17/08 8:00 AM			Units
		Low	Avg	High	
001 Rm D204 Rm Temp	1	21.7	21.7	21.7	Deg. C
002 Rm D204 HUM	2	47.20	52.05	54.74	%RH
003 Rm B201 Rm Temp	3	20.7	21.1	21.5	Deg. C
004 Rm B202 Ref 11R	4	3.6	3.7	3.9	Deg. C
005 Rm B209 Inc 8	5	52.1	53.7	55.0	Deg. C
006 Rm B202 Rm Temp	6	21.8	22.0	22.5	Deg. C
007 Rm B209 Ref 8R	7	4.1	4.3	4.4	Deg. C
008 Rm B202 Inc 18	8	35.5	35.6	35.6	Deg. C
009 Rm B202 Inc 19	9	35.3	35.7	36.3	Deg. C
010 Rm B202 Inc 22	10	35.9	35.9	36.0	Deg. C
011 Rm B202 Inc 14	11	36.1	36.1	36.2	Deg. C
012 Rm 203 Rm Temp	12	22.5	22.7	23.0	Deg. C
013 Rm B201 Inc 27	13	35.9	36.1	36.3	Deg. C
013 Rm201 Inc 27					
014 B201 Inc 28	14	<u>29.6</u>	34.8	35.8	Deg. C
015 Rm B203 Inc 4	15	21.1	21.8	22.1	Deg. C
016 Rm B203 Inc 10	16	21.3	21.9	22.2	Deg. C
017 Rm B203 Frzr 10F	17	-23.3	-23.1	-23.0	Deg. C
018 Rm B204 Rm Temp	18	20.1	20.8	21.1	Deg. C
019 Rm B204 HUM	19	51.72	56.92	59.26	%RH
020 Rm B204 Ref 12	20	4.0	4.1	4.2	Deg. C
021 Rm B204 Inc 26	21	36.4	36.6	36.8	Deg. C
022 Rm B204 Inc 25	22	36.3	36.4	36.4	Deg. C
023 Rm B204 Inc 24	23	36.3	36.3	36.3	Deg. C
024 Rm B204 Inc 2	24	35.9	36.0	36.0	Deg. C
025 Rm B204 Inc 1	25	36.0	36.2	36.6	Deg. C
026 Rm B209 Inc 9	26	42.2	42.2	42.4	Deg. C
027 Rm B205 Rm Temp	27	22.1	22.4	22.7	Deg. C
028 Rm B205 Ref 5	28	2.5	3.3	4.3	Deg. C
029 Rm B202 Ref 3F	29	2.2	2.4	2.9	Deg. C
030 Rm B202 Frzr 3F	30	-16.8	-15.3	-12.9	Deg. C
031 Rm B206 Rm Temp	31	21.3	21.5	21.8	Deg. C
032 Rm B206	32	2.4	3.3	3.8	Deg. C
033 Rm B206 Frzr 2f	33	<u>-20.8</u>	-17.7	-15.7	Deg. C
034 Rm B207 Rm Temp	34	21.5	21.9	22.3	Deg. C
035 Rm B207 Inc 17 CO2	35	0.000	0.000	0.000	Volts
036 Rm B207 Inc 17 Temp	36	35.1	35.2	35.2	Deg. C
037 Rm B207 Inc 20	37	36.1	36.1	36.2	Deg. C
038 Rm B207 Inc 21	38	35.9	35.9	36.0	Deg. C

NOTE: Reading samples file ended before end of averaging period. Averages may change.

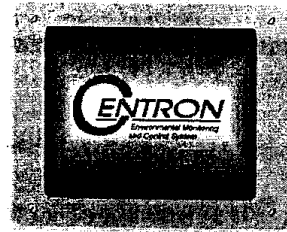
NOTE: Underlined values are outside the period-end alarm limits.

# Attachment 2: EMAS: Instructions for Telephoned Alarms

## OPP Microbiology Laboratory

### Rees Scientific Centron Alarm

#### Instructions for Telephoned alarms



**IMPORTANT - Press the Phone's Buttons Slowly.**

Node Telephone Number: 410-305-2795

<u>What you hear</u>	<u>What you Do</u>	<u>What it means</u>
"Centron Alarm, Centron Alarm, Centron Alarm... This is the Centron Monitoring System."	<b>Listen.</b>	Rees System Alarm Message.
"Centron Node "X". Centron Alarm."	<b>Listen.</b>	"X" = Node in Alarm.
"Input "X" Temperature is "Y"."	<b>Listen.</b>	"X" = the Probe in Alarm. "Y" = the current reading of the probe, in Degrees C or F.
"Normal Range is Between "X" and "Y"."	<b>Listen.</b>	The high and low limits of the probe in alarm.
"Repeat, This is the Centron Monitoring System."	<b>Listen.</b>	Repeats initial Warning Message two more times then hangs up and calls the next number on the phone list.
	<b>Press "0" (zero).</b>	This Stops the calling sequence and acknowledges the alarm.
"Acknowledgement received, repeat, acknowledgement received."	<b>Listen.</b>	This confirmation message tells you the system has recognized that you pressed "0" (zero) on the telephone keypad.
"Enter your telephone ID code followed by the "#" sign."	<b>Enter your ID code then "#".</b>	Identifies you and your Security Level to the system.  Note: Telephone ID Code is not the same as password or username
"Press "1" to check global status, "2" to check single input status, "3" to inhibit an input, "4" to enable an input, "5" to hang up."  Note: 3 and 4 are only spoken if Inhibit-By-Phone is turned on in Node Wide Parameters	<b>Press "1", "2", "3", "4" or "5" then "#".</b>	<ol style="list-style-type: none"> <li>1. Allows you to check on the status of all inputs.</li> <li>2. Allows you to hear the status of a single input even if it is not in alarm.</li> <li>3. Allows you to inhibit (Turn off) an input.</li> <li>4. Allows you to turn an input back on.</li> <li>5. Hangs up the phone and disconnects you from the system.</li> </ol>
	<b>Press "3" then "#".</b>	This tells the system you want to turn an input off.
"Enter the input number followed by the "#" sign."	<b>"X" then "#".</b>	"X" = The Probe No. that is in alarm.

# Attachment 2 (con't): EMAS: Instructions for Telephoned Alarms

## OPP Microbiology Laboratory

"To inhibit input "X", enter number "X" then "#".  
of hours followed by the "#" sign.  
Use the "\*" key for the decimal point."

"X" = Number of Hours. Use the "\*" as  
a decimal point if you need it (i.e. 2 ½  
hours = 2\*5#).

### *Rees Scientific Centron Alarm*

#### Instructions for Telephoned alarms (Continued)

<u>What you hear</u>	<u>What you Do</u>	<u>What it means</u>
"Input "X" has been inhibited for ___?___ Hours."	Listen.	Confirms the entered probe number and number of hours it is turned off.
"Press "1" to check global status, "2" to check single input status, "3" to inhibit an input, "4" to enable an input, "5" to hang up."	Press "5" then "#" or choose another option.	

The Message will repeat itself. If more than one probe is in alarm, you would take care of them one at a time.

### **BASIC TIPS**

1. Press the Telephone's buttons SLOWLEY.
2. Don't give out your pass code to anyone. With your code other people are able to make changes to the system (at your security level). That will make it look like you did it.
3. Utilizing telephone option number 1 or 2, you can call back into the system at a later time and check on the real-time status of the probe you inhibited (or any probe for that matter). This way you can see if it is still moving further out of range or coming back into range. (Use the Nodes telephone number on front page)
4. Always report any telephone activity with the Centron system to your supervisor. Documentation needs to be maintained on any interaction with the system. (i.e. the why of what you did.) The system records the who, what, and when of any interaction.
5. Notify your supervisor of any changes to your telephone number.
6. Know which probe number refers to which piece of equipment. Write the equipment you are responsible for with the probe number below.

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Attachment 3: List of MLB Incubators, Refrigerators, Freezers and Sample Storage Rooms Covered by EMAS  
 OPP Microbiology Laboratory

**MLB Incubator, Refrigerator and Freezer Inventory**

Effective \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_

Input No.	Unit No.	Location (Room)	Manufacturer	Model No.	Serial No.	Target Temp.	Period-End Alarm Limits
<b>Incubators</b>							
5	8I	B209	Boekel	132000	06046	55°C ± 1°C	53°C to 57°C
8	18I	B202	VWR	3025T	08105206	36°C ± 1°C	34°C to 38°C
9	19I	B202	VWR	3025B	08105206	36°C ± 1°C	34°C to 38°C
10	22I	B202	Yamato	IC800	IC801B6300003	36°C ± 1°C	34°C to 38°C
11	14I	B202	Precision	30M	600041067	36°C ± 1°C	34°C to 38°C
13	27I	B201	Thermo Scientific	3110	310829-31776	36°C ± 1°C	34°C to 38°C
14	28I	B201	Thermo Scientific	3110	310829-31775	36°C ± 1°C	34°C to 38°C
21	26I	B204	Yamato	IC800	IC801B6Z00234	36°C ± 1°C	34°C to 38°C
22	25I	B204	Yamato	IC800	IC801B6300002	36°C ± 1°C	34°C to 38°C
23	24I	B204	Yamato	IC800	IC801B6300004	36°C ± 1°C	34°C to 38°C
24	2I	B204	Precision	30M	699010763	36°C ± 1°C	34°C to 38°C
25	1I	B204	Precision	30M	699010761	36°C ± 1°C	34°C to 38°C
26	9I	B209	Lab-Line	Imperial III	0799-0160	42°C ± 1°C	40°C to 44°C
35	17I	B207	Revco	Ultima II	U15N-400053-UN	36°C ± 1°C	34°C to 38°C
37	20I	B207	VWR	3025T	08105106	36°C ± 1°C	34°C to 38°C
38	21I	B207	VWR	3025B	08105106	36°C ± 1°C	34°C to 38°C
39	23I	B207	Yamato	IC800	IC801B6300001	36°C ± 1°C	34°C to 38°C
45	7I	B209	Precision	2EG	9211-005	30°C ± 1°C	28°C to 32°C
<b>Refrigerators</b>							
4	11R	B202	Fisher	Isotemp Plus	410N0005	2°C to 5°C	1°C to 6°C
7	8R	B209	Revco	RFS214A14	R02L-52413-RL	2°C to 5°C	1°C to 6°C
20	12R	B204	Thermo Electron	REC4504A21	X06R-125660-XR	2°C to 5°C	1°C to 6°C
28	5R	B205	Summit	BI-605J	970900676	2°C to 5°C	1°C to 6°C
29	3R	B201	Westinghouse	WRT17CGAWO	BA32403117	2°C to 5°C	1°C to 6°C
32	2R	B206	Westinghouse	WRT17CGAWO	BA32603844	2°C to 5°C	1°C to 6°C
40	6R	B207	Summit	BI-605J	970900665	2°C to 5°C	1°C to 6°C
41	1R	B207	Summit	BI-605J	970900695	2°C to 5°C	1°C to 6°C
<b>Freezers</b>							
17	10F	B209	Revco	ULT1740-3-A36	U07N-200015-UN	-25°C to -15°C	-25°C to -15°C
30	3F	B201	Westinghouse	WRT17CGAWO	BA32403117	-20°C to -10°C	-20°C to -10°C
33	2F	B206	Westinghouse	WRT17CGAWO	BA32603844	-20°C to -10°C	-20°C to -10°C
44	9F	B209	Revco	ULT390-5-A30	U08J-443679-UJ	-85°C to -75°C	-85°C to -75°C
<b>Sample Storage Rooms for Temperature and Humidity</b>							
1		D204	NA	NA	NA	20°C ± 5°C	14°C to 27°C
2		D204	NA	NA	NA	Not Specified	10% to 75%
18		B204	NA	NA	NA	20°C ± 5°C	14°C to 27°C
19		B204	NA	NA	NA	Not Specified	10% to 75%