Division of Research
Comparative Medicine

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SOP # 109	Title: Edstrom Watchdog General Procedure

SCOPE: This SOP is applicable to all Comparative Medicine personnel

SOP OWNER: Facility Manager

PURPOSE: To outline the general procedures of the Edstrom Watchdog System monitoring environmental conditions like temperature, humidity, differential pressure as well as controlling and monitoring light

LOCATION: All Vivaria

Approved by: Sylvia Gografe, D.V.M., Ph.D. Director Comparative Medicine

1. **Responsibilities**
    a. Lab Animal Technician
        i. Adhere to procedures as outlined in this SOP.
    b. Facility Manager
        i. Adhere to procedures as outlined in this SOP.
        ii. Ensure procedures are followed as outlined in this SOP.
        iii. Ensure appropriate training is provided to particular personnel depending on function/job description and assurance that Training Checklist is signed
    c. Training Coordinator
        i. Adhere to and ensure procedures are followed as outlined in this SOP.
        ii. Ensure appropriate training is provided to particular personnel depending on function/job description and assurance that Training Checklist is signed
    d. Director/Veterinarian
        i. Adhere to procedure as outlined in this SOP.
        ii. Ensure appropriate training is provided to particular personnel and necessary resources are available.

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2. **Changing Room Properties**
   a. Log into V5 Central from the main Edstrom computer.
   b. Click on the Rooms tab.
   c. Select the Room desired.
   d. Right clicking on any field opens up these settings which can now be modified.
   e. Right clicking on the room itself allows the user to change several special settings. Set Active/Inactive means that the room can be set to a state that in which it will not be monitored and no alarms will be sent out, or returned to normal. The room can also be set to Clean Time to allow temporary deviations in parameters without alarms being sent out. The Room's User List can also be modified from here. Lastly the lights in the room can be easily toggled on/off.

3. **Checking for and Acknowledging Alarms in the Edstrom System**
   a. Log into V5 Central from the main Edstrom computer or Watchdog Web from an external computer.
   b. On the left side of V5 central is a tab labeled alarms, click this.
   c. Listed here are the current alarms for the Edstrom system. They maybe be temperature, humidity, air flow or light alarms. They are categorized by location, time started, priority and the specific message.
   d. Select an alarm you would like to acknowledge.
   e. Below is an acknowledge duration. Select the time desired for the alarm to be acknowledged.
   f. Make any noted if relevant.
   g. Click acknowledge.

4. **Creating a New Template for Room Settings**
   a. Log into V5 Central from the main Edstrom computer.
   b. Click on the Actions menu on the top tab.
   c. Click New Template and select the appropriate type of template.
   d. Type a name for the new template and click OK.
   e. Drag a room or several to the existing template. This will set the parameters for the room based off of the first room dragged into it. To modify the now set parameters, double click on one and a window will open with the settings to be changed.
   f. Change the parameters as needed and click OK to set them.
   g. There are several premade environmental templates that come with the Edstrom system. Rodents being the primary template used at this facility.

5. **Creating a New User Account**
   a. Log into V5 Central from the main Edstrom computer.
   b. Click on the Actions menu at the top.
   c. Click Add User.
   d. Enter relevant information into the boxes and click Next when done. A pin is required for resetting passwords.
   e. Select specific rooms to grant access to certain areas or All to grant access to all rooms. Click Next when done.
   f. Set the user's access level and have them enter a Login name and password. Login names must be between 5 and 15 characters. Passwords must all be between 5 and 15 characters and contain at least one number and one letter.

Administrator access level has access to all parts of the Watchdog system and sets the accessibility of all the other user levels as needed.

    g. Click Next to continue.

    h. Enter the contact information of the new user and set when the user will receive alarm notifications.

    i. Click Next and add a photo if appropriate.

    j. Click Finish when done.

    k. Edstrom Monitoring System

6. **Checking Alarm Notifications**

    a. Start by logging onto the Edstrom designated computer. Login is v5user and Password is eiversion5.

    b. Click on v5central.

    c. Enter Login and Password.

    d. Click on Alarms.

    e. Acknowledge any alarms present, adding notes if any relevant information is available.

    f. Notify Vet/Manager of any alarms that require attention.

    g. Close program by clicking on BYE when done.

7. **Generating a Report from the Edstrom System**

    a. Open Report Writer on the main Edstrom computer

    b. Open the Historical folder.

    c. Open the Environmental folder.

    d. Click on the desired parameter set/graphing style required. The daily graph and High/Low/Ave contains all the different environmental parameters except lighting and are graphed separately. Combo graphs these parameters together. The Lighting Graph is just for the light parameters and graphs them as a daily bar graph.

    e. One a parameter set/graph style is chosen, select the date range and rooms, and parameter/s if appropriate. Click Redraw. Based on the amount of data chosen this may take several minutes to appear.

    f. The options to save the graph or print it are at the bottom if needed.

    g. Click close when done.

8. **Retrieving Archived Data for Generating Reports from the Edstrom System**

    a. Open Report Writer on the main Edstrom computer

    b. Click File.

    c. Click Open.

    d. Double click the D drive.

    e. Double click the EwsV5 Archive Folder.

    f. Click the Folder of the appropriate date range.

    g. With the Folder highlighted click OK.

    h. Access the data as you normally would.

    i. The settings will return to the original non-archived data set when closed.

9. **Changing a Light Module**

    a. Determine that Light Module (LM) is malfunctioning. This may be done by receiving prolonged communication lost or light alarm e-mail notifications.

b. Locate spare Light Module. If one cannot be found contact Edstrom Industries at 1-800-558-5913 and ask to talk to someone in Tech Support about receiving a new module.

c. Go to the specified area with the malfunctioning Light Module. The Light Module is usually located in the ceiling. A ladder and a Philips head screw driver are required.

d. Locate the box containing the specific Light Module, usually above the area in question. The boxes are labeled as to which room or cube that they belong.

e. Remove the front plate of the box by loosening the screws.

f. Unscrew the inside plate holding the modules in place.

g. Replace the Light Module by unplugging the old one and plugging the new one in. Make sure the lights have lit up on the new module to assure that is correctly plugged in.

h. Put the two plates back into place.

i. Attached to the side of the new module there is a small label with a tear off that has the Neuron ID number. Remove the bottom half and go to the main Edstrom computer.

j. Log on to the Edstrom computer and log into V5 Central.

k. Click on the Tools tab.

l. Click Replace Remote Device

m. A box will pop up. Select the location of the Light Module that is being replaced.

n. Enter the Neuron ID from the tab that was taken from the new module.

o. Click Replace.

p. Allow a minute or two for the replacement to take effect.

q. Check alarms to see whether any relating to the module in question have cleared or monitor as needed to verify.

r. If the issue has not resolved or any new errors occur, consult Edstrom tech support as listed above. A relay may need to be replaced and certified electrician will need to be called

10. Changing a Sensor Module

a. Determine that a Sensor Module (SM4) is malfunctioning. This may be done by receiving prolonged communication lost e-mail notifications, or by continued discrepancies between facilities measurement of temperature or humidity and the Edstrom system's.

b. Locate spare Sensor Module. If one cannot be found contact Edstrom Industries at 1-800-558-5913 and ask to talk to someone in Tech Support about receiving a new module.

c. Go to the specified area with the malfunctioning Sensor Module and remove said module. A small hex key is required to unscrew the module from the metal plate attached to the wall. After removing the two screws, unplug the module from the connection in the wall.

d. Replace the old Sensor Module with the new Sensor Module in reverse order of the previous step.

e. Attached to the side of the new module there is a small label with a tear off that has the Neuron ID number. Remove the bottom half and go to the main Edstrom computer.

f. Log on to the Edstrom computer and log into V5 Central.
g. Click on the Tools tab.
h. Click Replace Remote Device
i. A box will pop up. Select the location of the Sensor Module that is being replaced.
j. Enter the Neuron ID from the tab that was taken from the new module.
k. Click Replace.
l. Allow a minute or two for the replacement to take effect.
m. Check alarms to see whether any relating to the module in question have cleared or monitor throughout the day to see if the temperature/humidity variations have resolved.
n. If the issue has not resolved or any new errors occur, consult Edstrom tech support as listed above.

11. **Record Keeping**
    a. Log any issues on the *Health and Environment Check Sheet* and notify supervisor.

Review Date	Revision Date	Revision Number	Description of Revision

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