

STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 1164

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TITLE: Neogen® AccuPoint Luminometer
SCOPE: Animal Care Personnel
RESPONSIBILITY: Facility Manager and Technical Staff
PURPOSE: To Outline the Proper Procedures for the Operation and Maintenance of the Neogen® AccuPoint Luminometer

I. PURPOSE

1. This procedure outlines the use and maintenance of the Neogen® AccuPoint Luminometer used to assess adequacy of sanitation for the Microbiological Monitoring Program.

II. RESPONSIBILITY

1. Facility Managers are responsible for ensuring that sampling is performed in accordance with SOP.
2. Managers are responsible for maintaining an adequate supply of the Neogen® Accupoint Advance ATP Surface Sampler and AccuPoint Advanced Water Sampler supplies and ensuring these supplies are stored appropriately (i.e., stored at 2-8° C when not in use).
3. Managers are responsible for the maintenance and security of the Neogen® Accupoint Advance in their facility.

III. EQUIPMENT APPLICATION

1. The Neogen® AccuPoint Luminometer detects the presence of adenosine triphosphate (ATP) a chemical present in all living organisms. ATP may be present on any surface from any organic source.
2. The AccuPoint Luminometer uses a process called bioluminescence to detect the ATP. ATP in combination with substrate/enzyme complex will activate, which produces light. The amount of light emitted, is measured using the Luminometer, evaluated as Relative Light Units (RLU).
3. Frequency of testing should be in accordance with **SOP 1010 Microbiological Monitoring of Sanitation Procedures**

IV. EQUIPMENT USE

1. Sample Identification:

- a. Samples are identified by selecting the appropriate location listed in the testing plan of HC Data Manager[®] prior to inserting an AccuPoint ATP Surface or Water Sampler.
 - b. Remove the samplers from refrigeration one hour prior to use.
2. Assay Procedure:
- a. **Optimal results are obtained when swabs are read within one minute. (However, if a sample is taken and not activated, the sample can be read within 2hrs)**
 - b. Turn on the AccuPoint reader by pressing the red power button located on the front right corner of the unit. The unit will then begin to initialize and a record screen will appear. The current number of records stored in the reader will be seen. The reader will then move to the testing screen.
 - c. After the reader has been synced with the site plan specified, the navigation keys can be toggled to locate the different areas and fields that will be tested. Use the **Up or Down key** to outline the current field **BLUE** rectangle will appear around the selection). If on a field that needs to be changed, press the OK button and the **BLUE** rectangle to will turn **RED**.
 - d. Toggle the Up and Down key and locate the area of interest to be tested.
 - e. Once the area of interest is located, select the **OK button**. Each plan are facility, room and equipment specific.
 1. **Once the appropriate "PLAN", and surface location within the plan, is selected** the test site, can be sampled.
 2. Sampling Procedure:
 - a. The surface and water samplers are stored at 2-8° C when not in use and must be removed and placed at room temperature prior to use.
 - b. Remove the Access sampler without touching the tip of the sampler:
 1. Surface Sampler:
 - a) Swab a four-inch by four-inch area (10 cm X 10 cm). Draw an imaginary square and then with a back and forth motion within the square. Consistency is critical.
 - b) Hold the sampler vertically and fully depress to activate in housing compartment. (Note: the sample must be held vertically to make contact with the activating solution)
 - c) Mix for 2 seconds in a twisting motion (DO NOT SHAKE)
 - d) Press the eject button and insert the sampler into the instrument.
 - e) Depress the sampler fully and close the door
 - f) The RLU score will display along with a symbol for pass, marginal or fail.
 - g) If unable to use reader within 1 minute, DO NOT fully depress into the sampler. There is a two hour window following collection that the sample must be activated and read.
 2. Water Sampler

- a) Select the correct site to be tested. A water droplet icon on the display indicates to use the water sampler option.
- b) Take the sample by dipping the water sampler into the liquid.
- c) Hold the sampler vertically and fully depress to activate. Note: the sampler must be held vertically.
- d) Mix for two seconds. Place in instrument immediately
- e) The results will appear after 15-20 seconds. Pass will display in green with a check mark. A fail reading will display in red with an X.
- f) Press the eject button to remove the sampler from the reader component. Used swabs are non-toxic and may be disposed in the non-hazardous trash.

3. Upload Data:

- a. With the reader on, place USB cord into designated computer that has the appropriate software downloaded
- b. A pop up display will appear on the desktop indicating results.



- c. Select Upload but do not erase the information on the unit itself
- d. Reports:
 1. Select the “**Reports**” to display desired format (e.g. spreadsheet or pie chart)
 2. Reports will be saved in the software and can also be exported and printed for future use.
 3. If a failed result is seen, re sanitize area and notify manager when resampling is ready to be completed.
 4. Unresolved failed tests will be documented as to the corrective action taken and evidence of a successful retest
 5. Export the data to Microsoft excel by performing the following:
 - a. Select the disk icon with the drop down and select export to excel

V. MAINTENANCE

1. Maintenance:

- a. Before use, the batteries should be fully charged. Connect the A/C power cord to a power supply and allow to charge for two hours; if needed. It is not necessary to recharge the instrument after each use only when battery indicator is low.
- b. The AccuPoint Advanced HC reader is supplied with four AA rechargeable nickel metal hydride (NiMH) batteries, which provide for sixteen hours of continuous operation before needing recharging.
- c. Only recharge when the battery charge icon appears near depletion.
- d. Recharge through the supplied A/C power adapter.

- e. To access batteries, remove screw using a Phillips head screwdriver.
- f. Push down and slide open the access door on the top of the instrument.
- g. Replace the batteries according to the diagram here.
- h. Use only four rechargeable AA-size NiMH batteries (Neogen item 9610).
- i. Old batteries can be disposed of as nonhazardous waste.
- j. NOTE: IF the batteries are removed for more than one minute, the time and date must be reset by connecting your reader to you software data file via the USB cord. Unit may be cleaned occasionally with a damp cloth but do not use any harsh cleaners.
- k. Avoid exposure to direct sunlight, water and other liquids.

VI. TROUBLE SHOOTING

1. Refer to the manufacturer's operation and maintenance manual.

VII. REFERENCES

1. Refer to the manufacturer's manual for additional information.
2. Manufacturer's instruction sheet "**AccuPoint Advanced HC Competency Verification**"

Approved:

Date: