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<b>Electrophoresis Safety</b>		
Investigator: General Safety	Location: EHS	Revision: 00

Precautions for safely operating electrophoresis apparatus to prevent electrical shock during use are described below.

## 7.1 General Precautions

7.1.1 When locating, or working around or near an electrophoresis unit, avoid unintentional grounding points and conductors (e.g., sinks and other water sources, metal plates, aluminum foil, jewelry, pipes, or other metal equipment). If

will work as long as it does not come in contact with the buffer. Non-conducting benches (wood or plastic) and floors (and/or rubber mats) are recommended.

7.1.2 Always think and look before touching any part of the apparatus. A thin film of moisture can act as a good conductor of electricity.

7.1.3 Some power supplies produce high voltage surges when they are first turned on, even if the voltage is set to zero. Do not ignore safety rules just because the voltage is low. Changes in load, equipment failure, or power surges could raise the voltage at anytime.

7.1.4 Do not touch any cooling apparatus connected to a gel. The current can be conducted through the tubing.

7.1.5 Do not run electrophoresis equipment while unattended.

7.1.6 If electrophoresis buffer is spilled or leaks from the gel box, stop the run and clean up the bench top immediately.

7.1.7 \_\_\_\_\_ ply and buffer tanks.

## 7.2 Selecting a Good Location for the Equipment

7.2.1 Locate the equipment where it will not be easy to knock over or trip on.

7.2.2 Place the electrophoresis unit and its power supply so that the on/off switch is easy to reach and the power-indicator light is easily seen.

7.2.3 Always maintain adequate clearance around the apparatus. Do not permit leads to dangle below the lab bench. At the lab bench, position the power supply so that it is not necessary to reach across the apparatus to make connections to turn the power on or off. Whenever possible, set the power supply on a shelf above the gel box. Good housekeeping is essential.

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7.3 Pre-Operation

- 7.3.1 Test the power supply to ensure that all switches, lights, and the floating output circuit is functioning properly. Record the inspection date and test for open circuit and GFCI protection, if the power supply has this feature.
- 7.3.2 Inspect insulation on the high voltage leads for signs of deterioration (e.g., exposed wires, cracks or breaks, etc.) and ensure that these items are not hanging over (i)22(n)-7(g)-7( )than

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