APPENDIX 3

MERCURY SPILL CLEAN-UP PROCEDURES

Although mercury should not be found in patient care areas, the following guidelines have been established to prevent mercury exposures to personnel and prevent the release of mercury into the environment.

The proper clean up and disposal of mercury in the event of a spill outlined in the Nursing Practice Manual E 27.0 Guidelines for Disposal of Hazardous Material - Mercury. Nurses are responsible for the clean-up of broken thermometers following the guidelines listed in the document. The amount of mercury in a thermometer is not enough to cause adverse health effects but must be properly cleaned up. Larger spills or releases of mercury such as a blood pressure manometer or a cantor tube are cleaned-up by emergency responders. Upon recognition of a broken manometer or other large source of mercury, nursing is to relocate the patient and contact Public Safety for an EH&S response. Quick response and clean up by properly trained staff limits the exposure to mercury vapors and prevents lingering problems of contamination. EH&S’ Occupational Safety Unit monitors areas where spills of "mercury" manometers occur to verify the clean up procedures removed all the mercury released from the spill.

Exposure to mercury is most likely through inhalation of mercury vapors. Health effects from mercury exposures can include kidney damage and central nervous system disorders. The small quantity of mercury in a thermometer does not present a health hazard if immediate action is taken when a thermometer is broken. The concentration of mercury vapors generated is very low. However, the use of personal protective equipment is still needed to prevent exposure.

Broken Thermometers

Only a small quantity of mercury can be found in a standard laboratory thermometer. When a thermometer breaks, some or all of the mercury may be released. Using a 3" x 5" index card, push the mercury into a pile. Make sure peripheral areas are checked for mercury. If any is found, push the mercury into the pile. Using two 3" x 5" cards, gather the mercury droplets onto one of the cards and transfer the mercury into a small plastic bottle. A special “mercury” sponge can also be used to absorb the mercury. For those droplets that cannot be picked up using either of these methods, use one of the following actions:

- Use a syringe (no needle) to suck up the mercury
- Use "scotch" tape and press the tape onto the mercury. By carefully lifting the tape, mercury will remain on the tape.

For each of the listed steps, place the collected mercury into a sealable non-metallic container. Place any part of the thermometer that still contains mercury into the container. Go over the area a second time to ensure that all the mercury has been removed. Contact the Hazardous Waste Management Unit (275-2056) for disposal of the collected material as hazardous waste.

After a mercury spill is cleaned up, a flashlight can be used to check for any beads of mercury that may remain. Turn off the room lights and shine a flashlight at the spill area. Any mercury that still is present will be visible when the light shines on the mercury at a glancing angle.

Barometers and Manometers

These devices contain a large quantity of mercury. A trained responder must be called for clean up should a mercury spill occur from one of these devices. To reduce the possibility of airborne exposures or tracking the mercury into other areas, personnel should not be permitted to enter the area. Clean up of these spills requires special equipment. It is important to clean up the spill as soon as possible. Contact appropriate emergency resources as needed.

Special Circumstances

Occasionally, mercury is spilled onto carpeting. The only remedy for these spills is to remove the carpeting and dispose of it as hazardous waste.