CHECKING FOR METER ACCURACY

Tools and Equipment Required

- Leveled meter on mounting bracket.
- Vacuum source providing stable 12 to 15 inches of vacuum.
- Vacuum trap which also serves as water collecting container (pail milker).
- Hose (approximately five feet long) with flow restricter (8304601-01) installed 24 inches from end which is attached to meter inlet.
- Milk pail or container capable of holding 40 pounds of water.

Procedure

1. Attach correct end of hose with flow restricter to milk meter inlet. Using another hose, connect vacuum source (milk line vacuum) to vacuum trap and also connect vacuum trap to milk meter outlet nipple. See Figure 39.
2. Fill pail or container with exactly 34 pounds of water and locate near the meter.
3. Apply vacuum to the vacuum trap and milk meter. Place the loose end of hose containing the flow restricter into the water in the pail and suck all the water through the meter into the trap. (Avoid turbulence in pail and do not pull large volumes of air through meter as this will cause inaccurate metering.)
4. Record meter reading.
5. Perform the following calculation to determine the p-value.

$$\frac{\text{Meter reading}}{32.5} \times 100 = \text{p-value}$$

6. Repeat steps 2 through 5. If both p-values are the same and they fall between 97 and 103 percent (31.5 to 33.5 pounds) the meter is considered accurate.
7. If the two p-values differ, perform a third test. The meter is considered acceptable if no single p-value is outside the range of 90 to 110 percent of the recorded water weight (29.25 to 35.75 pounds) AND if the average of the three p-values is within 97 to 103 percent (31.5 to 33.5 pounds).