**QAP For The Intoxilyzer 400** (Revised 10/98)

## Instrument Accuracy

The accuracy of the I-400 meets DOT specifications for breath alcohol readings. Accuracy at 0.020 and 0.040 BrAC is within + 0.005 BrAC of the actual value.

## Calibration Media (Solution and Gas)

Gas: With the availability of an appropriate NIST standard, it is possible for end users to obtain ethanol gas standards with direct tractability back to NIST approved standards from CMI’s supplier, Scott Specialty Gases. Each lot of cylinders will be marked with batch and cylinder numbers for direct traceability with the records being kept by the gas manufacturer. Copies of the fabrication and verification procedures for the manufacture of dry gas should be available through the gas manufacturer.

Solution: With the availability of an NIST standard for aqueous ethanol solutions, it is possible for end users to produce aqueous ethanol solutions to be used in web bath simulators. Failure to use NIST traceable solution may invalidate the results of subsequent tests performed on an instrument that was checked with an improperly mixed solution. Simulators used in wet bath testing must be included on the US Department of Transportation Conforming Products List of Calibrating Units for Breath Alcohol Tests.

The manufacturers of web bath solutions should certify both the % BAC accuracy and provide the appropriate documentation for fabrication and verification.

The manufacturer of these materials will supply shelf life and operation procedures for the aqueous ethanol solutions and dry gas mixtures.

## Frequency of Calibration Verifications

The allowable interval between calibration verification tests for the I-400 breath-testing instrument should not exceed 30 days or 50 tests. The frequency of the verification tests can exceed the recommendation. A log of calibration verifications needs to be maintained as proof that the verifications are completed at these minimum intervals. Logbooks designed for this purpose are available.

## Removal From Service

The I-400 requires no fixed period for performing instrument maintenance or calibration. The I-400 should be removed from service if it does not pass the self-diagnostics tests or the instrument fails a calibration verification test. The instrument will respond with ‘E#’ displayed on the screen where ‘#” is the error number associated with the problem detected. A list of these error codes can be found in the I-400 operator handbook. The handbook should be consulted to determine whether the instrument needs factory maintenance.

The calibration of the I-400 may be verified with a standard whose concentration is between 0.040 and 0.110 BrAC and manufactured to a tolerance of + 0.002 BrAC. The tolerance for an acceptable calibration verification is the chosen concentration + 0.005 BrAC as displayed by the instrument.