



Houston Forensic Science Center

500 Jefferson Street, 13th floor Houston, TX 77002

To: Quality Division

From: James Miller, Seized Drugs Manager

Date: November 22, 2021

Re: Documented rationale for clause 7.8.3.1 c the reporting of additional significant digits in Seized Drugs reports

The purpose of this memo is to serve as documentation for the rationale in the reporting of additional significant digits for uncertainty of measurement (UM) values associated to weights on Seized Drugs reports. The Quality Manual clause 7.8.3.1 c limits the reported UM to at most two significant digits unless there is a justification for reporting additional significant digits.

In the state of Texas, per the Health and Safety Code Chapter 481, a controlled substance is defined in part as “a substance, including a drug, an adulterant, and a dilutant, listed in Schedules I through V or Penalty Groups 1, 1-A, 1-B, 2, 2-A, 3, or 4...” These penalty groups are further subdivided into weight ranges that define the associated offense and classification based on the amount of the controlled substance. The severity of the offense is dependent on the penalty range for the net weight of the controlled substance as reported by the Seized Drugs section. Therefore, UM values are included in the final report if the upper or lower limit value could result in a weight that is in a different penalty range than the reported net weight as required by clause 18.3.11 of the Seized Drugs Standard Operating Procedures (SOP).

To assist our stakeholders with determining the appropriate penalty weight ranges, the Seized Drugs section reports out the total expanded uncertainty to the same decimal places as the readability of the balance used (Clause 18.3.8 SD SOP). The section does not round the total expanded uncertainty to two significant digits because this could include instances where the values would need to be rounded down, and therefore a reduced uncertainty range would be provided to our stakeholders. In addition, there are controlled substances such as marihuana that need to be converted from grams to ounces and/or pounds to be able to conform to the applicable penalty weight ranges. In this type of situation, because the measurement value and its associated UM needs to be converted to the required legal units, it is necessary to retain additional digits to avoid round-off errors in subsequent calculations or unit conversions.

This documentation memo retro-actively applies to Seized Drugs reports where UM values may have been reported to more than two significant figures.