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## Laboratory Accreditation: The External Quality Assurance Program

In 2012, The RMTC initiated a horseracing laboratory accreditation program, the first of its kind in the world, that established testing standards and verified laboratory competency through an independent, External Quality Assurance Program (EQAP).

The EQAP affords a comprehensive assessment of a laboratory's capabilities through the analysis single-blind samples. These are blood and urine samples clearly identified to the laboratory as EQAP samples.

Twice a year, laboratories receive a set of blood and urine samples from the RMTC's EQAP provider—an independent laboratory that produces test samples to the Horseracing Testing Laboratory Committee's (HTLC) specifications by adding designated substances to blood and/or urine samples that are screened and determined to be free of foreign substances prior to the addition of the designated substances.

Each laboratory is required to analyze and identify substances in the samples. A failed analysis—a false negative (failure to detect a substance) or a false positive (reporting the detection of a substance not present)—initiates an investigation and a Corrective Action Plan to identify both cause and remedy for the deficient analysis. The Laboratory Code of Standards establishes parameters for EQAP performance for a laboratory to maintain its accreditation status.

By submitting portions of the same test sample to all laboratories, the HTLC can also identify interlaboratory differences in performance and implement corrective measures where warranted. This practice also serves as additional quality control on the EQAP samples. If some or all laboratories produce consistent results that deviate from the Test Sample's specifications, the HTLC undertakes an investigation of the Test Sample's production and processing prior to distribution to the laboratories. Despite the rigor applied to production of EQAP samples, there have been occurrences where investigations determined that a Test Sample did not meet the HTLC's specifications. In those cases, the Test Sample was withdrawn and did not impact a laboratory's accreditation status.

The EQAP also assesses testing applied on a routine basis to racetrack samples through the submission of double-blind samples. These are samples that are delivered to the lab mixed in with, and indistinguishable from, other post-race samples. Unlike the single-blind samples that are presented to the laboratory clearly designated as EQAP samples, double-blind samples are not identified to the laboratory. Double-blind samples are intended to determine if there are differences between what a laboratory can do and what it does do on a day-to-day basis. Double-blind testing is implemented with the cooperation of regulatory authorities who oversee drug testing programs in their respective states.

The EQAP is not the only quality assurance applied to the testing of racing samples. The Association of Racing Chemists (AORC) conducts a quality assurance program through the distribution of single-blind samples.

Laboratories also employ internal quality control and quality assurance measures on a regular basis. These intralaboratory programs are directed by Quality Control Managers who have oversight on all practices and procedures within the laboratory.