



February 3, 2023

Mr. Jim Travis
Asset Management
Federal Highway Administration
300 East 8th St., Room 826
Austin, Texas 78701

RE: Annual Report on Independent Assurance Program Results – CY 2022

Dear Mr. Travis:

In accordance with the requirements set forth in 23 CFR 637 Part B and the Texas Department of Transportation's (TxDOT) Quality Assurance Program for Construction, the information below summarizes the results of TxDOT's independent assurance (IA) activities under the system approach to IA activities for calendar year 2022.

TxDOT Independent Assurance Program Results			
IA Activities	TxDOT	Non-TxDOT	Total
Number of personnel evaluated under system approach	1,858	2,168	4,026
Number of personnel removed from the IA program	716	341	1,057
Number of IA evaluations completed			25,590
Number of IA evaluations meeting tolerance			24,258
Number of IA evaluations not meeting tolerance			1,332

This program evaluated TxDOT, commercial laboratory, and contractor personnel (where applicable) performing testing on traditional, design-build, and concession projects. TxDOT uses a system approach to administer the IA program, whereby the Materials and Tests Division's (MTD) central laboratory administers four proficiency programs that represent concrete, soils-base/aggregates and hot mix materials. For design-build and concession projects, IA activities are administered or managed by the designated project IA laboratories and reported to MTD. When splits are administered outside the proficiency program, they are reported to TxDOT per project and included in this report.

IA testing in hot mix asphalt (HMA) is covered by a statewide proficiency sample testing program administered jointly by MTD and the Texas Asphalt Pavement Association (TXAPA) / Hot Mix Asphalt Center (HMAC) to all HMA Level 1A certified technicians, to include TxDOT, commercial laboratory, and contractor personnel.

For Soils/Base and Aggregate testing, MTD has a soils/base (SB) certification program, which is administered jointly by MTD and the Texas Asphalt Pavement Association (TXAPA) / Hot Mix Asphalt Center (HMAC). The statewide soils/base proficiency program covers all AGG101, SB 101, SB 201, and SB 202 certified technicians in the state.

For concrete testing, MTD continues to administer an annual compressive strength (Tex-418/ASTM C39) proficiency program that includes TxDOT, commercial laboratories, and contractor personnel. The statewide program continues to show value through analysis and objectivity when reviewing responses.

Similar to our 2021 report the data above represent a 93.6% and 95.3% success rate, respectively, for TxDOT, and commercial laboratory/contractor personnel.

CORRECTIVE ACTIONS:

As defined and handled in previous years, all PSP evaluations that did not meet tolerances defined in the QAP or received a rating of 2 or lower were required to have a response for each instance of unsatisfactory results. All personnel, required to respond, had to provide a written justification documenting a review of processes and equipment. In the event a response was not received the certification has been expired. Reinstatement is acquired by performing and passing the respective written exam or reattending the full certification class for the corresponding programs.

The Rigid Pavements and Concrete Materials section has continued to provide training for the statewide concrete proficiency program. Results and providing guidance to the district laboratory staff was given during the January 2022 Materials Quality Quarterly Meeting that covered specimen preparation and testing, and a more comprehensive effort in determining the cause of a low rating and repetitive low ratings for technicians.

Each year prior to collecting the hot mix asphalt samples for the 1A proficiency, the Bituminous Branch of the Flexible Pavements Section provided training on how to properly sample from a stockpile, for all sampling personnel present on-site. We will continue providing training and demonstration of proper sampling technique to minimize possibility of human error and producing unrepresentative samples.

The following is a summary of responses received during root cause analysis and corrective actions from each respective program.

- Deviated from standard procedure – Respondent’s plan on reviewing the standard procedure and acquiring additional training.
- Issues with accuracy of equipment – Respondent’s plan on having the equipment repaired or recalibrated.
- Neoprene pads needing replacement – Respondent’s plan on replacing worn neoprene pads.
- Issues with diameter measurement – Respondent’s plan on having the calipers recalibrated.
- Unrepresentative sample.
- Did not follow TxDOT’s procedures and instructions to perform proficiency testing.
- Utilizing equipment that was out of calibration, damaged, or out of service. – Respondent’s plan on ensuring testing equipment is calibrated and in service.
- Not allotting enough time to perform the sample. - Respondent’s plan to make better use of time management as to not rush to complete required testing.
- Loss of material resulting in a poor performance. - Respondent’s plan on taking more care to not lose material from the sample(s) and request an additional sample.
- Typo issues that include incorrect calculations or entry error. - Respondent’s plan to double check calculations for accuracy and ensuring the data recorded during testing is the same data being submitted without error.

There were various alternate delivery projects in 2022 on which IA split or proficiency testing was conducted. For these projects, IA activities were administered by either a TxDOT district laboratory or AASHTO accredited and TxDOT certified consultant laboratories. The table below identifies the projects and the designated IA laboratory for each. The results of the IA activities conducted by these laboratories are included in the statewide results reported above.

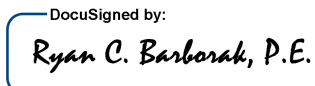
Project	Project Type	Designated Project IA Laboratory
Oak Hill Parkway	CDA/Design Build/Concession	Austin TxDOT District
SH249	CDA/Design Build/Concession	Aviles
Harbor Bridge	CDA/Design Build/Concession	Aviles
SH99 (H&I)	CDA/Design Build/Concession	HVJ
SH288	CDA/Design Build/Concession	HVJ
NTE Segment 3C	CDA/Design Build/Concession	Kleinfelder
NTE IH820 and SH121	CDA/Design Build/Concession	Kleinfelder
IH 635	CDA/Design Build/Concession	Dallas TxDOT District
I35-E Phase 2	CDA/Design Build/Concession	Dallas TxDOT District
Southern Gateway	CDA/Design Build/Concession	Dallas TxDOT District
I-35 NEX Central	CDA/Design Build/Concession	Raba
I69 Interchange	CDA/Design Build/Concession	Pharr TxDOT District

Overall, IA tests were conducted using proficiency sample methods, with acceptable tolerances based on the standard deviation and applied accordingly. The exception to the proficiency program was due to extenuating circumstances such as military or medical leave in which a split was conducted and deemed necessary. In nearly all cases, each test procedure and assigned rating was considered a separate evaluation, resulting in multiple evaluations per technician for the proficiency program.

Through IA testing and our technician and laboratory qualification programs, we will continue to ensure efficiency in quality sampling and testing practices in conjunction with maintenance of equipment. We have implemented an equipment maintenance program to strengthen the program, as well as work with the IT department to standardize responses to allow for greater oversight in managing corrective actions and responses for opportunities to educate and retrain individual participants.

Please contact me at (512) 975-9755 or our IA manager, Thomas Smith at (512) 506-5802 should you have any questions regarding the information contained in this report.

Sincerely,

DocuSigned by:

 Ryan C. Barborak, P.E.,
 Division Director, Materials and Tests Division

cc: Enad M. Mahmoud, P.E, Deputy Division Director, Materials and Tests Division, TxDOT