














## FAQ: Frequently Asked Questions

-  **What is the CTAC program?** The Concrete Testing Adherence Collaboration (CTAC) program was developed by producers in Colorado to minimize/eliminate the effects of false positive concrete tests on producers, and the concrete construction industry. The CTAC program involves a continuous improvement cycle, and the outcome evaluates field concrete testing technicians on an individual basis to determine appropriate actions for training, resolutions, and to increase consistency with ASTM Standards.
-  **What experience is needed to be a CTAC Observer?** In Colorado, any CTAC Observer is required to (a) have, or have held, an ACI Concrete Field-Testing Technician Grade 1 certification and (b) have at least one full year of experience testing fresh concrete materials.
-  **Who qualifies a CTAC observer?** The credibility of this program depends on the CTAC observer. CRMCA currently has a PE in charge of the program who confirms that the Observers are Field 1 Certified and have at least 1 year of testing experience. CTAC Observers are employees of concrete producers.
-  **Is there a cost to take part in CTAC program?** There is no cost for the individual company to participate. The only cost is the technician time.
-  **What does a CTAC observation entail?** The CTAC observer watches the testing technician sample the concrete, perform fresh concrete tests, mold the cylinders, and place them in the initial curing environment. The observer answers simple Yes/No questions on a phone app.
-  **How much time is involved for one CTAC observation?** A single CTAC observation takes 15 to 30 minutes. Some companies require each of their technicians to conduct 2 observation/week on independent projects.
-  **How are CTAC observations submitted?** After completing the CTAC observation on the phone app, once the CTAC observer hits send, the information is captured in a database. If there is no cell phone coverage, the information is stored on the phone until coverage is available at which time the data is automatically transmitted.
-  **Can the CTAC observer take pictures or video during a CTAC observation?** Yes, up to 5 pictures can be taken during a single CTAC observation.
-  **How many observations are completed each year?** Since the program began in Colorado in 2015, over 5,500 observations have been compiled. 1,553 observations were completed in 2019 alone by 150 employees from 9 companies or divisions.
-  **Have you experienced resistance from testing technicians and testing firms?** Several labs embrace the program. Some technicians may not like to be observed, but they do not have an option.
-  **Does the Observer inform the labs, A/Es, contractors that they will be conducting CTAC observations onsite?** No, but all labs are aware of the program and the fact observations may





occur. The CTAC observer decides where and when the observations take place. Since the companies that the CTAC observer belongs to are part of the project, the Observer has reason to be at the project site. No prior notification is provided to the observed technician nor their company. The Observer is encouraged to discuss the results of the observations with the technicians on-site after the Observation.



**How does CRMCA share the data?** Currently, CRMCA emails the monthly dashboard reports to all producers and test labs who elect to receive that information. The monthly reports provide visual information categorized under Testing Laboratory, or Supplier. Each company can view their own past performance compared to the overall data. No company can view the results of another company. CRMCA is currently exploring software tools such as Power Bi that will allow for individual companies to evaluate the data specific for their own company directly, including drilldown information for technicians/observers, project type, timeframes, and other items. Currently, producers and labs can get some of that information by contacting the CRMCA engineer. But the process is time consuming.



**How is the data utilized?** Concrete producers are encouraged to use the monthly reports to discuss with A/Es, labs, owners, contractors etc. Once producers get project level information, they could have a discussion with A/Es, owners, contractors, and labs about the current status and use the available educational resources to ensure testing is conducted in accordance with codes and standards. Several labs use the monthly reports to identify training needs and compare themselves against the overall lab average.



**What impact has CTAC program had on field testing?** When field technicians know their actions are being observed and recorded, they pay closer attention to the standards. No different than when technicians come in for recertification, they follow the standards very closely. For Question 1 (Is the Tech certified), Question 2 (Correct sampling), and Question 3 (correct testing procedures), the data has shown relatively level results in the range of 80 to 90 percent. For Question 4 (correct initial curing), observations have been consistently lower than 60 percent. The questionnaire was significantly improved in January 2017, after which the observation results provided more detailed information.



**What is the experience from the perspective of CRMCA?** The program is helping those who help themselves. By improving the quality of testing, this program can reduce incidence of rejected concrete, low breaks, call backs and thus will help save time and money. Companies can reduce their strength over-design if the initial curing is conducted according to standards. Of the 4 main questions observers record, Question 4 (proper initial curing) has not exceeded 60%. Therefore, the issue of improper initial curing of cylinders remains a problem. This could possibly change if data and pressure come from multiple areas in an organized manner.



**If a national program is managed by NRMCA will there be costs?** There will be initial set up costs, operational costs and user costs to access the data. These costs need to be determined.



**If a national program is managed by NRMCA what will be the role of the state associations?** This needs to be determined. This is a major issue affecting concrete producers and the CTAC program provides an opportunity to address this issue.



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