

NEWS RELEASE

Date: July 17, 2015
District: 4 - Oakland
Contact: Leah Robinson-Leach
Phone: (510) 715-6730

FOR IMMEDIATE RELEASE

World Renowned Experts Confer, Focus on Corrosion Protection for Tower Anchor Rods

OAKLAND – In a nondescript construction trailer at the foot of the Bay Bridge, a panel of world-leading engineers and scientists has spent the last two days poring over reams of data and listening to hours of presentations from Caltrans bridge builders, seeking the best way to protect hundreds of anchor rods at the base of the Bay Bridge's iconic white tower.

“Just to be clear,” Bay Bridge chief engineer Dr. Brian Maroney said as an image of steel grain magnified 1,000 times flashed on a projection screen, “we are literally putting this bridge under a microscope.”

The experts, some of whom have designed widely used metallurgical tests that bear their names, and some which count themselves as members of the National Academies of Science and Engineering, were gathered at the behest of the Toll Bridge Program Oversight Committee, the multi-agency body that oversees construction of the bridge.

“This collaboration of incredible minds is the cornerstone of any comprehensive effort to guarantee the integrity of these rods,” said Dan McElhinney, Chief Deputy District 4 Director of Caltrans. “This is Caltrans doing its job. We’ve provided troves of information to these experts so that they can validate and legitimate whatever our course of action should be.”

While the details are highly technical, their goal is straightforward: come up with the best way to determine the condition and strength of the tower anchor rods, many of which have been exposed to sea water, and design an environmentally friendly system to protect them from corrosion far into the future.



NEWS RELEASE

The anchor rods became the focus of attention when Caltrans inspectors found that they were improperly grouted by the bridge contractor and had been sitting in standing water.

This conferring of experts is the next important step of what has been a deliberate and methodical scientific investigation after this initial discovery.

Subsequent testing showed that nearly all tested rods withstood major earthquake-level force, while also revealing two had stripped threads and that one stripped to the breaking point.

Despite this high level of performance, the panel was also shown advanced engineering analysis of the bridge in a huge quake with only half or even none of these rods performing as designed. Even in these extreme hypotheticals, this analysis shows the bridge would perform as designed, and be ready to carry truckloads of emergency assistance soon after a major seismic event. It was emphasized that these rods are part of a belt and suspenders approach. In addition to the more than 400 anchor rods at the center of this analysis, the tower cannot slide on its base because of 150 6-inch diameter dowels.

This panel's work will culminate in a report provided to the oversight committee. By the very nature of such a large collection of independent experts, it's hard to know exactly what that report will ultimately suggest.

Once the experts determine the best testing protocols and protection methods, a formal recommendations will be provided to the oversight committee for approval. Those will inform the next steps by the department and the Toll Bridge Oversight Committee. A formal report will be released later, following approval of those recommendations.

A partial list of the experts participating in this process can be viewed here: <http://www.dot.ca.gov/hq/paffairs/news/pressrel/15pr058.htm>

Please visit www.baybridgeinfo.org for more details about the Bay Bridge project.

###

