The Federal Railroad Administration (FRA) has approved Caltrain's plan to begin implementing and testing its positive train control (PTC) system, the agency announced yesterday.

Known as interoperable incremental train control, the system will provide substantial safety and operational benefits for trains in the Caltrain corridor and allow the agency to meet the federal PTC implementation deadline by 2015's end.

Caltrain will become the first passenger-rail system in the country to adopt the technology, agency officials said in a press release.

The FRA's approval marks an important step in meeting the federal deadline. Caltrain began installation work along the corridor in 2013. After fiber optics installation is completed, the agency will begin installing and testing the software and wayside technology that will interact with onboard software. System testing is expected to be completed by October 2015.

The new technology will enable Caltrain to enhance safety at grade crossings, improve schedule reliability, operate trains closer together so more trains can serve the corridor, improve flexibility and enhance safety during construction work alongside the tracks, agency officials said.

"We set a goal of creating a train control solution that would not only provide substantially greater safety improvements but would improve the efficiency and performance of the Caltrain corridor," said Chuck Harvey, Caltrain's deputy chief executive officer for engineering, construction and operations. "But as a corridor that is also used by freight and other rail service providers, we needed a system that would work with others that are likely to be in use on this corridor one day."