JPB Board of Directors
Meeting of July 9, 2020

Correspondence as of June 19, 2020

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Hi Brent,

I'd like to follow up on this email - I distinctly remember observing that from 6/4 - 6/7 (where 6/4 happened to be the day of the Caltrain board meeting, where I bought attention to the previous email I sent during a public comment), I observed a lot less idling at the station. However, things have reverted back to where they were before, with plenty of instances where there was no train that arrived prior to an hour before, and where there were no trains departing in the next hour, yet there were still several trains idling at once (for example - https://twitter.com/ray__chang/status/1272369753332445185 was a clip I took last night at 8:26 PM, with the last arrival at 7:22 PM, and the next departure at 9:37 PM).

As much as everyone wishes that the new EMUs are up and running soon, currently they're scheduled to enter service by 2022 at the earliest (and based on what I've seen with other public transportation projects in the Bay Area i.e the SF MUNI Central Subway, the BART Berryessa extension, I am highly pessimistic that there won't be any delays, but that's besides the point here). Given the amount of noise and sound pollution these diesel engines make, I don't think it's reasonable for residents of the area to deal with this for the next 2 years, especially considering that there are systems in place to reduce the engine idling. By reducing idling time, Caltrain can save on fuel costs, and help reduce air and noise pollution in the neighborhood.

I've been extremely frustrated over the past 2 months, spending much of my time and energy trying to improve this situation. At times, I've seen improvements in regards to the idling situation, but those improvements only last about 2-3 days, before reverting back to normal. This whole situation with the idling trains has made me strongly consider moving out of the area, but even if I end up doing so, I believe Caltrain has responsibility to not excessively harm the environment, and the mental wellbeing of the residents that live nearby the stations.

I sincerely hope I can receive some sort of resolution on this matter, as this issue is affecting a lot of nearby residents, and with all the craziness going on in the world today, it would be nice if we didn't have to worry about excessive train idling as well.

Thanks,
-Raymond
Hi Raymond,

Thanks for reaching out again. On Monday, June 15, we implemented a new schedule with additional train service. Our operations team will continue to monitor the crews in the field to ensure they are keeping the idling to a minimum. We understand this can be a frustrating time to be living next to a railroad as we are required to shelter-in-place. I will continue to share your complaints with the operations team to check it against our protocol procedures.

I have worked with our operations team to update the station protocols and I have attached that document here for your information. As mentioned previously, these are protocols that will be followed during normal operations. There will be times where field crews will have to adjust which may result in trains idling longer than one hour. Examples of this would be if an issue with the train was discovered during inspection/arrival. This may require crews to idle the train to troubleshoot and resolve the issue. Unexpected changes in operations (e.g. vehicle strike) may also require changes to the operations at the station.

Thanks,
Brent
Caltrain Operation Protocols at Terminal Stations

Overview

Currently, Caltrain has 29 locomotives that run daily passenger service along the San Francisco Peninsula. Caltrain’s commuter service requires trains to layover and be ready to be placed into service at various times throughout the day at the San Francisco and San Jose Diridon stations. Some maintenance activities are performed on the trains during layovers, such as daily mandatory safety tests, cleaning and minor repairs.

Caltrain has policies and procedures in place regarding the startup, shutdown and idling of locomotives at the San Francisco and Diridon stations. Caltrain requires its service contractor, TransitAmerica Services, Inc., to follow these procedures and Caltrain performs routine audits to ensure compliance. These are general protocols for the operations of trains at the terminal stations. There will be instances where crews will need to adjust operations to match the various conditions on the railroad.

Major Service Disruptions

From time to time, Caltrain experiences major service disruptions that can change the scheduled activities that occur at the San Francisco station.

Due to the nature of operating a railroad, there are often changes that have to be made that are outside normal operating procedures. These changes can result from scheduled special events (e.g. Giants games, holiday service), or unscheduled events (e.g. maintenance issues, vehicle strikes, or trespasser incidents). During these incidents, additional trains may be placed into service or held over at the station in order to adequately respond.

COVID-19 Schedule Changes

While the schedule change due to COVID-19 has reduced the number of trains operating daily, there is a possibility for increased layover time at our terminal stations. This may increase the idling time for some trains as they wait to be placed back into revenue service.

Activities at the San Francisco and San Jose Diridon stations

Prior to Passenger Service - Throughout the day

In order to prepare for passenger service, both the Head End Power (HEP) and main engine must be turned on approximately one hour prior to a train’s scheduled departure. There are a number of system checks and tests that each train must go through before entering revenue service. These tests must be conducted each time an engine is restarted. Additional safety systems, namely Positive Train Control, have also increased the number of tests that must be completed prior to service.

Passenger Unloading / Cleaning Train – Several times a day

Once a train arrives at the station, passengers depart and crews clean the interior of the cars. Cleaning and passenger unloading is complete within an hour. There are additional cleaning requirements due to COVID-19. Typically, both the HEP and Main engines run during passenger unloading and cleaning.

Federal Railroad Administration (FRA) Mandatory Safety Inspection (Daily Inspection) – Once a day

A variety of interior and exterior inspections of the locomotive and cars are required each calendar day. Inspections take up to two hours and are typically performed after the train has made its last trip. During the first hour, there is an inspection of key functions such as the engine which requires the use of the HEP and Main engines. Repairs are performed during the second hour and require the Main Engine to be in idle.
**FRA Mandatory Brake Test – Once a day**
Daily brake tests are required by the FRA. Brake tests typically last 30 minutes and are usually performed after the Daily Inspection (listed above). Brake tests require the use of the Main engine, in idle mode. After daily inspection and brake tests are complete, all engines will be turned off. The ZTR system is also disabled to prevent the train from restarting at night.

**Engine / Power Systems**

**Head End Power (HEP) Engine**
HEP engines provide electricity for lighting, climate control and other electrical appliances on the train. While these HEP units have less horsepower than the main engines, the HEP units make more noise when they are operating under load even with the locomotive main engine is at idle. The HEP units generate much of the noise that is typically heard by residents around the station.

**Main Engine**
The main engine of the locomotive provides the power to move the train. The main engine also has a low idle mode which is used when the locomotive is undergoing maintenance and testing.

**ZTR System**
All Caltrain locomotives are equipped with a ZTR System. The ZTR System is activated when the main engine is turned off but key systems such as battery voltage, main engine coolant, and locomotive brake cylinder pressure need to be monitored. The ZTR system saves fuel and reduces noise by monitoring and maintaining key locomotive parameters. ZTR is used when trains are scheduled to turnaround or when trains are needed for backup.

**Wayside Power**
Wayside power provides electricity to the train from a wayside source. Wayside power is used for lighting, door control, climate control and other electrical needs and is utilized if cleaning of the train goes beyond 1:30 a.m.