Chronology of Defect / Noncompliance Determination

GILLIG produces a limited number of low floor transit buses with rear chassis mounted ultracapacitors which are used as a supplemental source of power during engine starting. Prior to performing any maintenance operations in the engine compartment of any GILLIG buses (including buses with rear chassis mounted ultracapacitors), there are a series of standard, redundant precautions that are required to be followed to prevent the engine from being started while maintenance personnel are in the vicinity of the engine. Initially, the ignition select switch in the rear of the bus should be placed in an OFF position. In addition, users are instructed to attach a "Do Not Operate" tag on the engine start switches and controls. These redundant, independent precautions are supposed to take place prior to starting any maintenance on the bus. Finally, users are instructed before starting the vehicle to ensure all personnel are safely clear of the bus.

In November 2020, a GILLIG Field Service Representative at a customer location for an unrelated issue was advised by the customer that it was possible on their buses with a rear chassis mounted ultracapacitor to start the buses with the master battery disconnect switch in the OFF position. The GILLIG representative inspected several of the customers buses with a Vanner model rear chassis mounted ultracapacitor and was eventually able to confirm that the bus engine could be started from the front of the bus, even though the bus main battery was turned off. Gillig, Vanner and the customer worked through an iterative process over the next few months, to develop a solution for this issue. In March 2021, Gillig loaded new software onto three of the customer's buses to understand whether the software would ensure the ultracapacitor contactors remain deenergized and in an open state when the main bus battery is in the OFF position. In August 2021, Gillig received a report from a separate customer with low floor buses that use a different type of rear chassis mounted ultracapacitor (KBI model) stating that it was possible to start the bus with the master battery disconnect switch in the OFF position. Gillig began to investigate this customer's report and in an abundance of caution disabled the ultracapacitor start feature in all buses at this customer's location. Notably, neither customer described the circumstances in which they observed that the engine could be started and neither reported that the engine had actually been started when personnel were present in the vicinity of the engine compartment.

In early to mid-September 2021, all 2020 and 2021 model year subject buses at the first customer received a software update to open and de-energize the ultracapacitor contactors when the battery disconnect switch is in the off position. Subsequently the 2014-2019 buses were also updated.

In April 2022, Gillig received a communication from NHTSA advising that the first customer had submitted a complaint to the agency about the performance of the ultracapacitor system and alleging that the buses could be started even though the battery disconnect switch was in the "disconnected" position and claimed that this condition created a safety concern. Gillig reviewed this communication and the customer's allegation and the following day the customer confirmed to Gillig that all of its affected buses had already received the software update prior to submitting its report to NHTSA. Gillig continued to review and consider the design of the ultracapacitor on the subject buses, particularly in light of the redundant series of instructions and practices that personnel are supposed to take in order to prevent the bus engine from being started during maintenance.

On April 22, 2022, notwithstanding the other redundant precautions, each of which entirely preclude the safety risk addressed in this petition, Gillig decided to conduct a safety recall out of an abundance of caution. Gillig is not aware of any injuries that are potentially related to the condition.