### Manufacturer Information:
- **Manufacturer Name:** Cummins, Inc.
- **Address:** Box 3005, Mail Code 41303
  Columbus IN 47202-3005
- **Company phone:** 812-377-5000

### Population:
- **Number of potentially involved:** 329
- **Estimated percentage with defect:** 100%

### Equipment Information:
- **Brand / Trade 1:** Cummins Inc.
- **Model:** PowerDrive EV
- **Part No.:** 4000EV/6000EV/7000EV
- **Size:** NR
- **Function:** Electric Drive

**Descriptive Information:**
The subject Electric Drivetrain consists of high voltage batteries and other components to control and distribute high voltage to a drive motor and other components. The system may also supply and control power to an electrically assisted power steering pump, which is supplied by Cummins. These systems were sold as original equipment in certain school buses and as original or upfit equipment in certain medium duty trucks. This recall consists of the entire population of systems built prior to February 23, 2021.

**Production Dates:** JUN 01, 2018 - FEB 23, 2021

### Description of Defect:
**Description of the Defect:**
Due to electromagnetic noise on the Control Area Network (CAN) bus, the subject Electric Drivetrain systems may experience loss of control of the inverter that provides electrical power to the power steering pump, possibly resulting in the loss of electrically assisted power steering. Power steering functionality is restored after a keyswitch recycle.

**FMVSS 1:** NR
**FMVSS 2:** NR

**Description of the Safety Risk:**
In the event of loss of power steering assist, manual steering functionality is retained but would require increased steering effort, particularly at lower speeds, increasing the risk of a crash.

**Description of the Cause:**
The cause is electrical noise on the CAN bus.
Identification of Any Warning that can Occur: None.

Involved Components:

<table>
<thead>
<tr>
<th>Component Name</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component Description</td>
<td>NR</td>
</tr>
<tr>
<td>Component Part Number</td>
<td>NR</td>
</tr>
</tbody>
</table>

Supplier Identification:

Component Manufacturer

Name: N/A
Address: NR
NR
Country: NR

Chronology:

December 9, 2020 – Cummins’ product safety team initiated an investigation into reports of temporary loss of power steering in vehicles equipped with the subject engines. The investigation included a review of data and consideration of a prior design review for wiring harness modifications and root cause analysis.


March 12 – April 12, 2021 – Cummins escalated the issue through its Product Safety Defect Board process and gathered additional data, including conducting a demonstration of the failure in a test vehicle.

April 13, 2021 – Based upon the information developed during the investigation, Cummins’ Product Safety Defect Board decided to conduct a safety campaign to address this condition.
To date, there have been no reports of accidents or injuries related to this condition.

**Description of Remedy:**

- **Description of Remedy Program:** Pursuant to 49 CFR 577.11(e), Cummins requests that it be exempt from providing notification of a reimbursement plan. Any pre-notification product failure would have been replaced under the manufacturer's limited warranty. Accordingly, no person would be eligible for reimbursement pursuant to 573.13.

- **How Remedy Component Differs from Recalled Component:** NR

- **Identify How/When Recall Condition was Corrected in Production:** This condition was corrected in a wire harness change that was implemented in production on February 23, 2021.

**Recall Schedule:**

- **Description of Recall Schedule:** Cummins expects to notify affected OEMs no later than April 30. Cummins will conduct the recall and notify owners. The timing of owner notification will be determined in consultation with the affected OEMs. Cummins is developing the recall schedule, but in any case expects to notify owners no later than June 19, 2021.

- **Planned Dealer Notification Date:** NR - NR
- **Planned Owner Notification Date:** NR - NR

**Purchaser Information:**

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

- **Name:** Blue Bird Corporation
- **Address:** 3920 Arkwright Road
  Macon GA 31210
- **Country:** US
- **Company Phone:** 4788222148
<table>
<thead>
<tr>
<th>Name</th>
<th>Daimler Trucks North America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>4747 N. Channel Drive</td>
</tr>
<tr>
<td></td>
<td>Portland OR 97217</td>
</tr>
<tr>
<td>Country</td>
<td>US</td>
</tr>
<tr>
<td>Company Phone</td>
<td>5037457385</td>
</tr>
<tr>
<td>Name</td>
<td>Thomas Built Buses, Inc.</td>
</tr>
<tr>
<td>Address</td>
<td>1408 Courtesy Road</td>
</tr>
<tr>
<td></td>
<td>High Point NC 27260</td>
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<tr>
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</tr>
<tr>
<td>Company Phone</td>
<td>3368784825</td>
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<tr>
<td>Name</td>
<td>The Shyft Group</td>
</tr>
<tr>
<td>Address</td>
<td>1541 Reynolds Road</td>
</tr>
<tr>
<td></td>
<td>Charlotte MI 48813</td>
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* NR - Not Reported