

# PREPARE FOR 2021 REGULATIONS

It is hard to believe we are almost through 2020, which means – among many other things – it is time to prepare for upcoming industry regulations taking effect in 2021. It is important to brush up on the changing U.S. standards for leak evaluation in heavy-duty vehicles now, before you find yourself inundated with customer questions.

As part of the EPA's Title 40, the federal government's long-term plan to reduce carbon emissions, heavy-duty on-road vehicles manufactured in 2021 or later will need to comply with the Society of Automotive Engineers' (SAE) J2727 standard. SAE J2727 is a method for evaluating all potential leak points within an A/C system and calculating an average loss of refrigerant annually. This leakage rate of each individual component, and dividing by the value of the total refrigerant system capacity.

Here are the key takeaways of the updated mandate:

- The A/C system of all on-road heavy-duty vehicles manufactured in 2021 or later **cannot exceed a leakage rate of 11g per year or 1.5% of the total charge.**
- Technicians who are installing an HVAC system on a new heavy-duty vehicle will be required to complete the SAE J2727 evaluation worksheet, and provide it to the chassis supplier for recordkeeping.
- The evaluation worksheet asks for specifics on the system's individual components – such as hoses, evaporators, pressure switches and compressors – which are used to calculate the overall system leakage rate.
- If the calculated leakage rate exceeds 11g annually or 1.5% of the total charge, you will have to identify creative solutions to lower that number. For example, this may require reducing the number of fittings, using a hose with a lower permeation rate, or implementing a different style of joints and seals.

If you would like to request a copy of the worksheet or have any questions about preparing for these changes, please do not hesitate to reach out directly to [RobertBrocx@RedDotCorp.com](mailto:RobertBrocx@RedDotCorp.com).