



Members Brief

An informational brief prepared by the LSC staff for members and staff of the Ohio General Assembly

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E-Check

The federal Clean Air Act requires states to take certain measures to control air pollution. Beginning in 1993, Ohio opted to implement a vehicle emissions testing program known as E-Check in an effort to meet these federal air pollution control requirements. The Ohio Environmental Protection Agency (OEPA) oversees and implements E-Check. This Members Brief provides a general overview of E-Check, how it operates, a discussion of where E-Check is required, a snapshot of the history of E-Check, and the latitude states have to eliminate or replace the E-Check Program.

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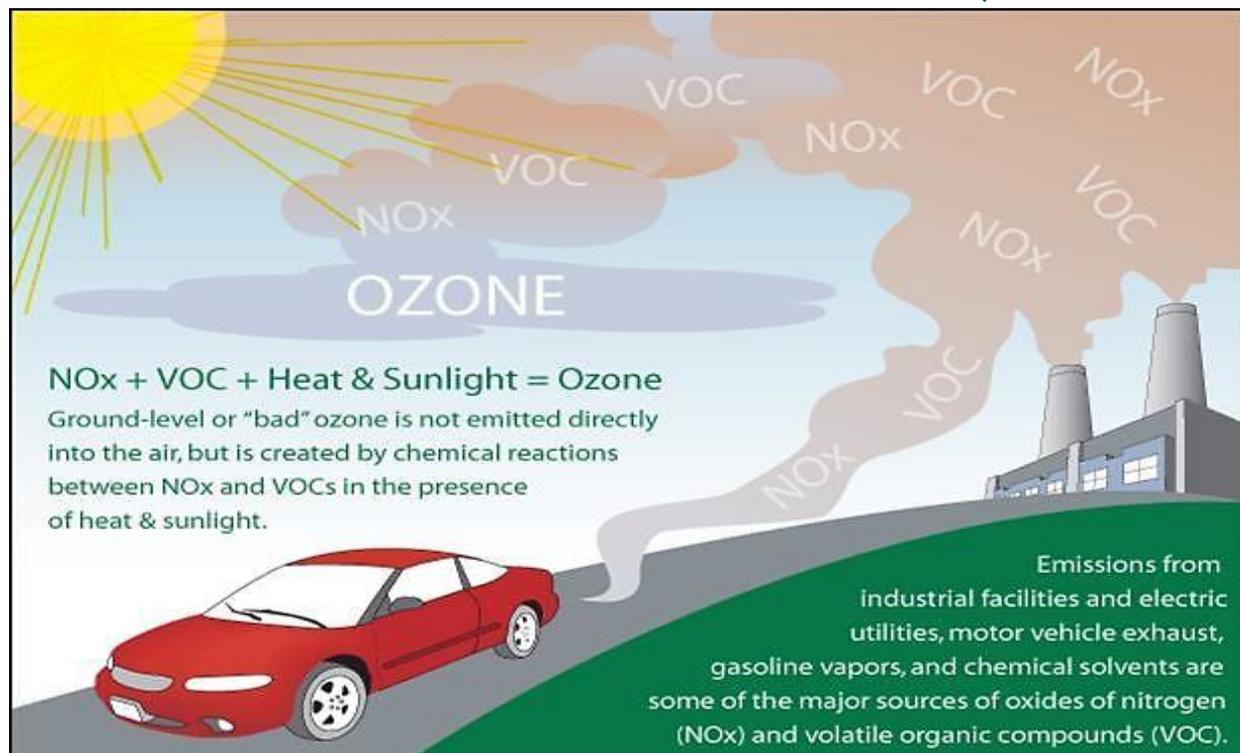
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Background

The Clean Air Act Amendments of 1990 revised federal requirements for attaining and maintaining National Ambient Air Quality Standards (NAAQS) for specific criteria pollutants, including ozone and carbon monoxide (CO). The Act is designed to bring areas with high levels of these pollutants into compliance with NAAQS. Under the Act, each state is required to devise and carry out a state implementation plan to ensure that NAAQS are met and maintained. Areas of a state that violate NAAQS are designated as nonattainment areas.¹

As shown in Figure 1.1, ozone is formed mainly when volatile organic compounds (VOCs) react with nitrogen oxides (NO_x). VOCs are released by cars burning gasoline, petroleum refineries, chemical manufacturing plants, and other industrial facilities. NO_x is formed by burning fuels such as gasoline, coal, and oil. CO is released through the process of burning fuels and other items.

Figure 1.1: Ozone Formation²



¹ Other criteria pollutants include particulate matter, sulfur dioxide, nitrogen oxides, and lead. See U.S. Environmental Protection Agency (USEPA), "Criteria Air Pollutants," <https://www.epa.gov/criteria-air-pollutants>; USEPA, "The Plain English Guide to the Clean Air Act," April 2007, available at: <https://www.epa.gov/sites/production/files/2015-08/documents/peg.pdf>.

² USEPA, "Ground-level Ozone Basics," <https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#formation>.

A nonattainment area is further classified under the Act according to the severity of air pollution for a particular criteria pollutant in that area. For example, the categories of nonattainment for ozone (in order of increasing severity) are:

- Marginal;
- Moderate;
- Serious;
- Severe;
- Extreme.³

The types of air pollution control measures that are required for an area depend on which category of nonattainment applies. For example, a state must implement a basic motor vehicle inspection and maintenance (IM) program as one of its measures in an area designated as moderate nonattainment for ozone. An enhanced IM program must be implemented in an area designated as serious or severe nonattainment for ozone (E-Check is an enhanced program). A state may choose to implement an enhanced IM program in an area designated moderate nonattainment for ozone in order to achieve greater emissions reductions. (Note: IM programs are also required in CO nonattainment areas.)⁴

After an area achieves attainment for a pollutant, the state must be able to show that it will continue to maintain attainment status for that pollutant for ten years. Thus, air pollution control technologies that are required to achieve attainment also may be necessary for maintaining attainment status.⁵

What is E-Check?

According to a representative of the Ohio Environmental Protection Agency (OEPA):

E-Check is a vehicle testing program that is designed to identify motor vehicles that emit excessive levels of pollutants into the air. Among the other emissions control options considered by the legislature, E-Check was the most cost-efficient measure to reduce the volatile organic compounds (VOCs) that form ground-level ozone, or smog.

When E-Check first began, it used a tailpipe emissions test called I/M 240, a 240-second test. During the test, a vehicle was driven on a dyne (treadmill) and its tailpipe emissions were measured. In 2000, that test was replaced with Acceleration Simulation Mode (ASM) 2525. ASM 2525 is similar to I/M 240 but is perceived to cause less stress on the vehicle. In

³ 42 United States Code (U.S.C.) § 7511 (2020).

⁴ An enhanced IM program is required for areas designated as moderate or serious nonattainment for carbon monoxide (see 42 U.S.C. § 7512a (2020)).

⁵ 42 U.S.C. § 7505a (2020).

January 2004, a new, federally mandated test known as On-Board Diagnostics (OBD II) was implemented. OBD II is required for most vehicles manufactured after 1995.⁶

The owner or lessee of a vehicle that fails E-Check emissions standards may be required to make certain repairs to bring the vehicle into compliance.⁷ However, waivers, extensions, and exemptions are available.⁸ A person residing in a county in which E-Check is operating must submit proof of E-Check completion every other year as part of the motor vehicle's annual registration.⁹

Vehicles subject to E-Check

In an E-Check county, only specific types of vehicles must undergo E-Check. Vehicles subject to E-Check include all gasoline and diesel-fueled vehicles (including flexible fuel and hybrid vehicles) to which all of the following apply:

- The vehicle has a gross vehicle weight rating (GVWR) of 10,000 lbs. or less;
- The vehicle is 25 years old or newer; and
- The vehicle is registered in an E-Check county.

Vehicles that are permanently exempt from testing under the program include:

- Vehicles with a GVWR of more than 10,000 lbs.;
- Motorcycles, recreational vehicles, and mobile homes; and
- Historical and collector's vehicles.¹⁰

This means that most large vehicles such as buses, semi-trucks, and dump trucks are not required to undergo testing. According to OEPA, this is not a federal requirement and states have discretion in this area. Other states have enacted vehicle emissions testing requirements with weight requirements that differ from Ohio's.¹¹

⁶ OEPA, "The Ohio E-Check Program," https://epa.ohio.gov/dapc/echeck/whycheck/ohio_echeck/#120603228-common-what-if-questions.

⁷ Ohio Administrative Code 3745-26-12.

⁸ See OEPA, "Waivers, Extensions, and Exemptions," https://epa.ohio.gov/dapc/echeck/testing_info/waiextem#whatisawaiver.

⁹ R.C. 4503.10(I)(1).

¹⁰ See OEPA, "Which Vehicles Must be Tested," https://epa.ohio.gov/dapc/echeck/testing_info/need_a_test.

¹¹ See, e.g., 67 Pa. Code § 177.101. Gasoline-powered motor vehicles with a model year of 1975 and newer with a GVWR of 9,000 pounds or less and registered in an I/M county or region are subject to an emission inspection in Pennsylvania. See also OEPA, "Emissions Testing in Other States," https://www.epa.ohio.gov/dapc/echeck/testing_info/testing_in_other_states.

Counties currently required to implement E-Check

As illustrated in Figure 1.2, under USEPA's current eight-hour ozone standard and Ohio's state implementation plan, only the Cleveland-Akron area is required to implement E-Check. That area includes Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties.

Figure 1.2: Map¹²



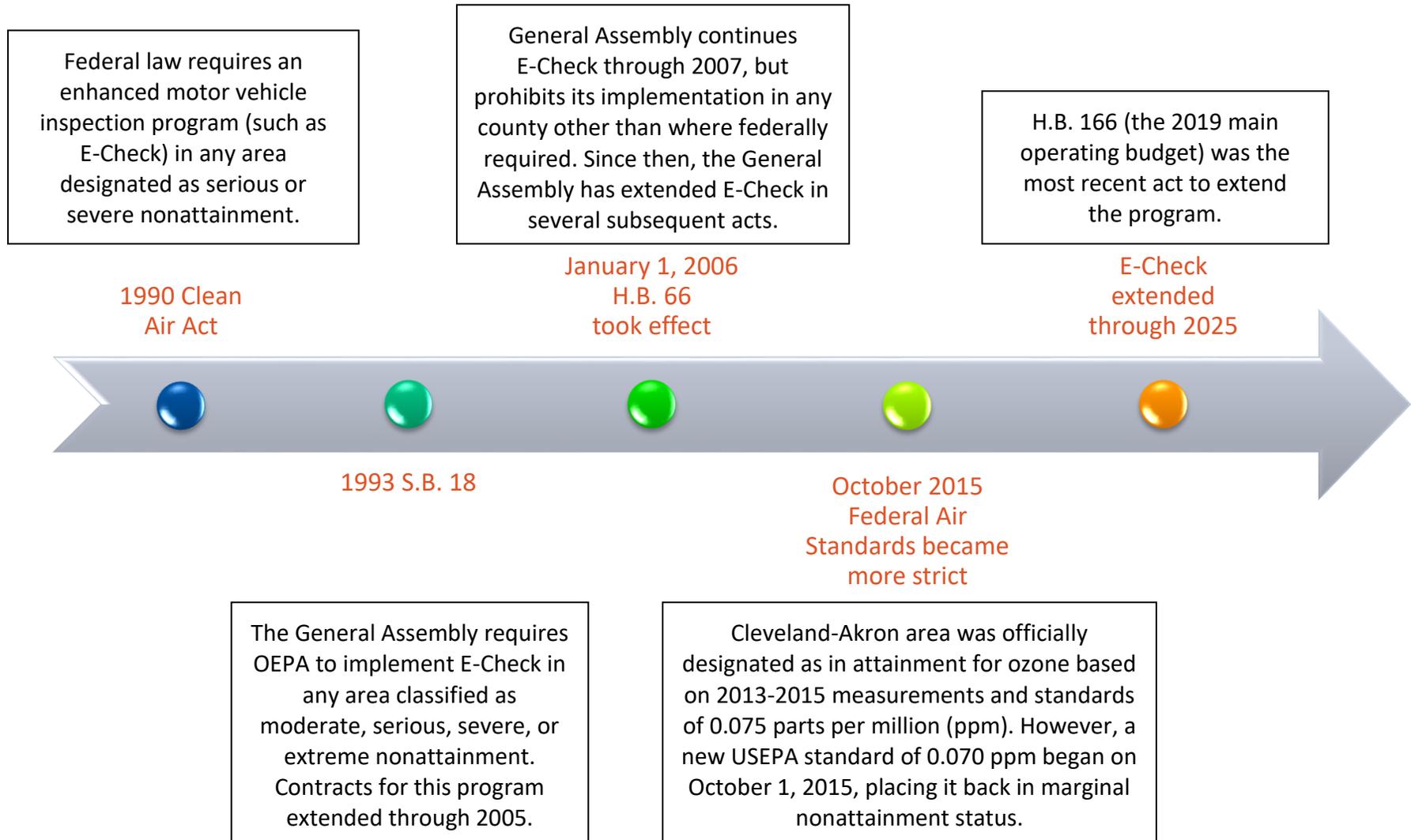
History

The timeline on the following page provides a brief overview of the history and development of E-Check in Ohio. Please note that it is not a complete history, but instead provides a snapshot of historical events that impacted the Ohio E-Check Program. As illustrated by the timeline, the Cleveland-Akron area is currently in nonattainment status for ozone and, as a result, E-Check is required in the counties that comprise that area.¹³

¹² See www.epa.ohio.gov/dapc/echeck/whycheck/seven_cos.aspx. Red indicates Cuyahoga County.

¹³ See USEPA, "Current Nonattainment Counties for All Criteria Pollutants" <https://www3.epa.gov/airquality/greenbook/ancl.html>.

Figure 1.3: Timeline



Latitude to eliminate or replace E-Check

Because E-Check is a component of Ohio's state implementation plan (required under the federal Clean Air Act), eliminating E-Check would require Ohio to find alternative air pollution control measures to meet the federal air quality standards (NAAQS). According to OEPA, lack of viable alternative options, cost, timing, and the emissions reductions achieved through E-Check make it a difficult program to eliminate or replace. Finally, according to an OEPA representative:

If states fail to comply with the Clean Air Act nonattainment requirements, the [federal government] can withhold federal highway money¹⁴ from Ohio. Also, if a state fails to meet the air quality standard . . . , the area will be "bumped up" into a higher category of nonattainment and be required to implement additional controls.

¹⁴ 42 U.S.C. § 7509 (2020).