



# Exhaust Notes

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## Vehicle Inspection Report (VIR) Reminders

Once you've taken the required training and passed the test, you know you're ready to be an AES. Knowing how to repair emissions systems is the most important duty of an AES. It's not the only duty, though.



What else could be required? If you've been reading Exhaust Notes regularly, you probably already know the answer—document it. It's a part of life for the AES.

Incomplete VIRs cause headaches for test station staff, who issue most waivers. Most importantly to you, they frustrate customers. Failure to keep your customers happy can also cost you business.

Of course it is also a good business practice to fully disclose necessary repairs, even if the

customer opts out. The customer may return to your shop at a later date to complete the repairs.

The following steps are required in order for repairs to be waiver eligible:

- Record the vehicle description, including license number and VIN.
- List any missing or inoperative primary emission control components.

- List any further recommended repairs, if needed.
- Cost estimate for recommended repairs.
- Print and sign your name.
- Include the date and time on the emission test report.

The customer presents this information to the test station in order to get a waiver. Any missing information may cause delay or denial of the waiver.

AES training classes cover these requirements. For more information, see your AES Handbook.

## Waivers by the numbers

In an ideal world, every vehicle that fails an emission test would be repaired. Vehicles would continue to run with fully functional emission control systems.

In the real world, however, some vehicles do not get all needed repairs. Some customers feel reluctant to spend money on expensive repairs due to the age of the vehicle.

Ecology recognizes that the cost of repairs needed to pass the emissions test may pose a financial hardship. That's why waivers are available.

Have you ever wondered how many waivers were issued? Great question! In 2014, vehicle owners received 32,834 waivers. This amounted to 32.11% of failed vehicles. The 32,834 waivers issued represent 3.17% of total vehicles tested.

Here is a snapshot of the waivers issued in Washington's emission test areas during the first half of 2015:

Redmond:	108
Bellevue:	135
Renton:	322
Auburn:	259
Fife:	237
Lakewood:	273
Puyallup:	117
West Vancouver:	82
East Vancouver:	171
West Spokane:	155
East Spokane:	54

Marysville:	113
Everett:	193
Lynnwood:	220
North Seattle:	248
South Seattle:	218



## Training Spotlight

### Keep your authorization current

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Interested in becoming an Authorized Emission Specialist? Is it time to update your AES training? If so, these instructors offer Ecology-authorized training. Contact instructors for class availability and cost.

#### **Clark County**

Milt Stoddard  
[cmiltons@msn.com](mailto:cmiltons@msn.com)  
Cell: 360-798-8224

#### **King, Pierce, and Snohomish Counties**

Howard Anderson — South  
Seattle Community College  
[howieZinstruction@gmail.com](mailto:howieZinstruction@gmail.com)  
206-883-7946

Karl Hoffman — Green River  
Community College  
[khoffman@greenriver.edu](mailto:khoffman@greenriver.edu)  
253-833-9111 Ext. 4253

Bryan Kelly—Valley Auto Electric  
21715 Dorre Don Way SE  
Maple Valley, WA 98038  
206-799-7366  
[bryan@valleyautoelectric.com](mailto:bryan@valleyautoelectric.com)

Nolan Koreski — Lake  
Washington Technical College  
[Nolan.koreski@LWTech.edu](mailto:Nolan.koreski@LWTech.edu)  
425-739-8352

Gary Neill — Renton Technical  
College  
[gneill@RTC.edu](mailto:gneill@RTC.edu)  
425-235-5824 or 253-381-3193

Jerald Peterson — Lake  
Washington Technical College  
[jerry.peterson@LWTech.edu](mailto:jerry.peterson@LWTech.edu)  
253-381-3193

Michael Richmond — Lake  
Washington Technical College

[Michael.Richmond@LWTech.edu](mailto:Michael.Richmond@LWTech.edu)

425-739-8428  
Don Sutherland — Lake  
Washington Technical College  
[don.sutherland@LWTech.edu](mailto:don.sutherland@LWTech.edu)  
425-739-8334

Brian Thompson  
[fiftyfivetbird@comcast.net](mailto:fiftyfivetbird@comcast.net)

Kenneth Wright — Renton  
Technical College/Independent  
[AP.KEN@juno.com](mailto:AP.KEN@juno.com)  
425-226-1680

Ed Schaplow  
[eschap@allview.com](mailto:eschap@allview.com)  
206-755-9611

Fred Treadwell  
19166 66 PL NE  
Kenmore, WA 98028  
[TreadwellF@gmail.com](mailto:TreadwellF@gmail.com)  
206-390-2735  
425-485-8272

Glenn Turner  
[GTUR461@Hotmail.com](mailto:GTUR461@Hotmail.com)  
206-331-1830

Fred Wilson  
[fred@high-road.com](mailto:fred@high-road.com)  
206-755-6657 cell  
206-789-7521 shop

**Spokane County**  
Brad Templeton  
509-535-2546

**Remember, you must take an Ecology-authorized training every two years to stay in the AES program.** If you have questions about training, please contact emission check staff listed for your county on page 4.

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## Hybrid battery codes—P1600 and P1449

Some new codes may be appearing on VIRs. These codes apply to hybrid vehicles. Most hybrids are exempt from emission testing. The Prius and first generation Honda Insight were exempt because they meet a minimum fuel economy standard. Most other hybrids didn't reach the market until after the 2009 model year.

One exception is the Honda Civic Hybrid. This is one of the few hybrids sold before the 2009 model year exemption, so you may be asked to do emission repairs on these vehicles.

Common fault codes for the Honda Civic hybrids are the P1600 and P1449 – Integrated Motor Assist System faults.

Unlike the Prius, the Civic Hybrid engine uses a

conventional starter. It can be driven continuously with a dead main battery. The gasoline engine was only designed for use with the main battery. With a dead main battery, the engine is operating outside of the operational design.

A Consumer Reports survey shows a 32% failure rate of the battery pack for 2010 cars and a 19% - 31% failure rate for previous years. Most batteries were replaced under the 8 – 80 or 10 – 150 warranties. Past the warranty period, that is about a \$3,000 – 5000 repair.

Owners of hybrid vehicles can prolong battery life in a few simple ways. One way is driving the vehicle for at least 30 minutes per month to charge the battery. The Civic Hybrid owner's manual states that leaving the car unused for over a

month will reduce the service life of the battery. This may even permanently damage the battery.

Keeping the temperature inside the car from getting too high will also prolong battery life. The Civic Hybrid's label indicates that high temperatures may damage the battery. Honda recommends keeping the temperature in the car below 150 degrees.

Civic Hybrids have a battery heat vent in the center of the rear packet shelf. Owners must keep this vent clear to avoid heat buildup that will damage the battery.



## Modified or tampered vehicles

Denial of a waiver can be a frustrating experience for a vehicle owner. So how do we deal with tampered vehicles which fail the emissions test?

And what if the only hold-up in the waiver process is the CARB sticker with Executive Order numbers? Perhaps it was left in the box when the parts were installed.

We are seeing after market components under the hoods of vehicles, many of which are CARB approved for that particular make and model of vehicle. Ecology has been holding fast to the "no sticker – no waiver" policy for components. If the vehicle is

missing the required sticker, the vehicle is ineligible for a waiver and must pass the test.

If a vehicle owner chooses to tamper in the future and add CARB approved components, the stickers that accompany these parts must be installed in a visible location. If the vehicle fails an emission test and needs a waiver, the sticker must be visible.

Ecology does **not** promote the idea of tampering with vehicle emission components. Keeping the vehicle in stock condition is best. We simply recognize that some people will modify vehicles. Using only CARB approved components, and

making sure the sticker is visible will ensure that a vehicle owner remains eligible for a waiver.



Executive Order number as it appears on a CARB sticker. Look for this sticker on CARB approved emission components.



Department of Ecology  
Air Quality Program  
PO Box 77755  
Olympia, WA 98504

Phone: 360-407-6330  
Fax: 360-407-0287  
E-mail:

[melanie.forster@ecy.wa.gov](mailto:melanie.forster@ecy.wa.gov)

To request ADA accommodation including materials in a format for the visually impaired, call Melanie Forster at Ecology, 360-407-6330. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

To conserve resources, we provide this newsletter in an electronic-only format. Please consider the environment when printing this newsletter.

# Emission Check

You're on the Road to Cleaner Air.

## Ecology's Emission Check staff

### Clark County

Rachael O'Malley  
360-690-7165

[rachael.omalley@ecy.wa.gov](mailto:rachael.omalley@ecy.wa.gov)

### King and Snohomish County

David Adler  
425-649-7267

[david.adler@ecy.wa.gov](mailto:david.adler@ecy.wa.gov)

John Dillon  
425-649-7198

[john.dillon@ecy.wa.gov](mailto:john.dillon@ecy.wa.gov)

Barbara Freeman  
425-649-4355

[barbara.freeman@ecy.wa.gov](mailto:barbara.freeman@ecy.wa.gov)

Mat Kwartin  
425-649-7113

[mathew.kwartin@ecy.wa.gov](mailto:mathew.kwartin@ecy.wa.gov)

Kerry Swayne  
425-649-7101

[kerry.swayne@ecy.wa.gov](mailto:kerry.swayne@ecy.wa.gov)

### Pierce County

Art Betts  
360-407-0244

[arthur.betts@ecy.wa.gov](mailto:arthur.betts@ecy.wa.gov)

Melanie Forster  
360-407-6330

[melanie.forster@ecy.wa.gov](mailto:melanie.forster@ecy.wa.gov)

Fritz Merkl  
360-407-6333

[fritz.merkl@ecy.wa.gov](mailto:fritz.merkl@ecy.wa.gov)

### Spokane County

Mattias Brischle  
509-329-3467

[mattias.brischle@ecy.wa.gov](mailto:mattias.brischle@ecy.wa.gov)