



NJ-CERT Module 2:

NJ Air Quality, Air Pollution, & Motor Vehicle Impact

A course made for New Jersey's Certified Emission Repair Technician (ERT)

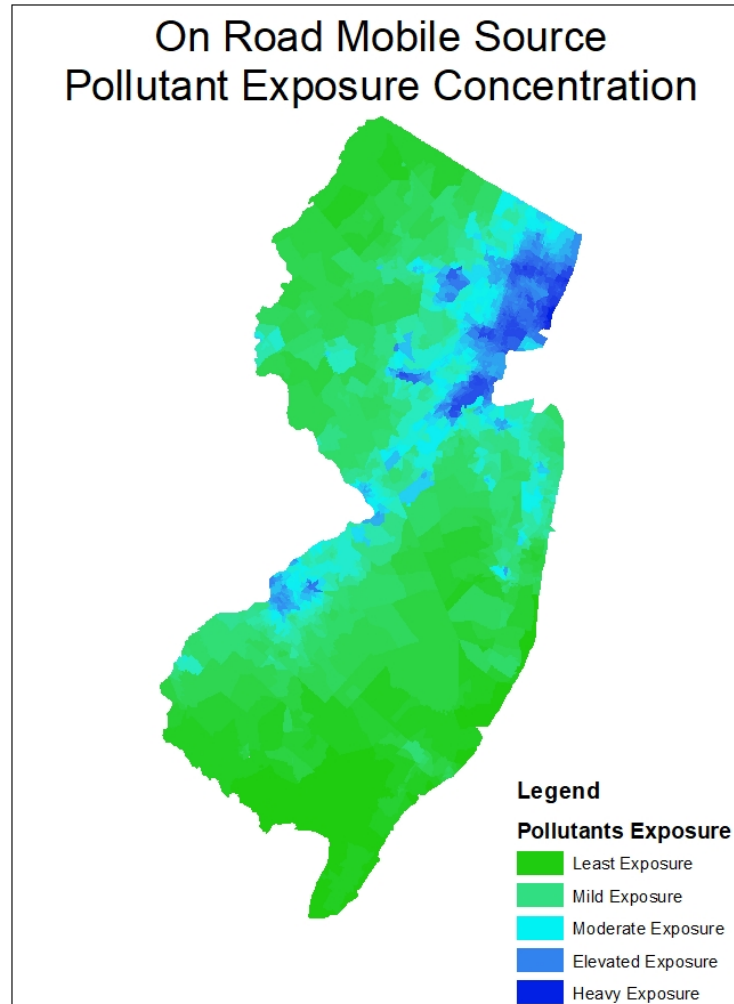
Presented by the NJ Department of Environmental Protection (DEP)
Bureau of Mobile Sources



- **Note:** If you have not printed out the [Master Acronym List](#), please do so now **OR** have it open while viewing these Modules.
- For detailed rules and regulations, please visit [Section 2](#) on the NJ-CERT homepage.

Thank you

New Jersey Air Pollution Challenges



- NJ is the most densely populated state with **1,196 people per square mile**. This creates a lot of traffic congestion in such a small area.
- Our neighboring cities of Philadelphia and New York City both have huge mass transit systems.
- Many commuters prefer their own cars over mass transit due to reliability concerns and geographical limitations. This creates a lot of single car commuters.

Note: The areas with a heavy exposure are near ports, airports, large industries and urban neighborhoods.

Source: NJDEP

Challenges continued

- Air pollution from surrounding states can be swept by the wind into our ambient air, which sometimes can be hard to regulate since it is out of our jurisdiction.
- Many roads and highways offer convenient routes to and from longer distances, making single car commuting a popular option.
- Keeping an eye on NJ's air pollution by using high quality monitoring practices can help us plan ahead regarding pollution problems and problem areas within the state.
- Our air quality is a lot better than one might believe, due to our strict air monitoring and emission control programs.

NJ Air Quality & Air Monitoring

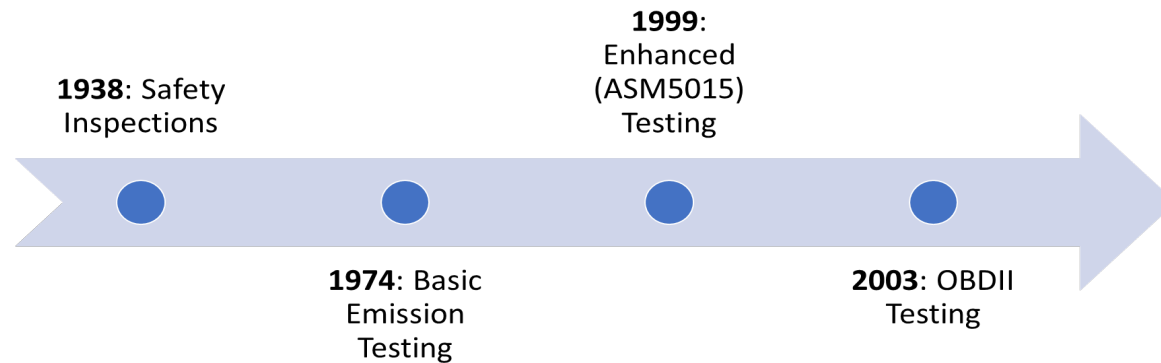
- New Jersey has been monitoring the air quality since 1965.
- Our air quality has improved since then, thanks to state, regional, and national efforts to curb air pollution.
- New Jersey monitors all the criteria pollutants listed under the Federal Clean Air Act.
 - O₃, CO, NO₂, and SO₂ are measured using USEPA-approved real time monitoring methods and are transmitted to a database.
 - Particulate matter is measured with a 24-hour filter-based sampler and processed daily in a laboratory.
- Monitoring NJ's air quality gives us great understanding to the effectiveness of our state implemented programs and what challenges we currently face.

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0-50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51-100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101-150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151-200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201-300	Health alert: everyone may experience more serious health effects.
Hazardous	> 300	Health warnings of emergency conditions. The entire population is more likely to be affected.

Source: <http://www.njaqinow.net/>

NJ's I/M Program Description

- Jointly operated by **Department of Environmental Protection & Motor Vehicle Commission**
- ALL light duty and heavy-duty vehicles are required to be inspected
 - New vehicles exempt the first 5 years.
- Our current program requires vehicles to be inspected every 2 years & commercial vehicles every year.
 - Over 2 million inspections annually.
 - 29 centralized test-only inspection facilities, over 1,000 licensed private garages and multiple MVC Roadside Inspection Teams.
 - Windshield stickers are applied to the vehicle to show compliance and remind when to return for inspection.
- Audits
 - During overt performance audits, conducted by NJMVC at both PIFs and CIFs, the auditor's presence is known by the inspectors and facility management/owners.
 - DEP audits inspection hardware at both CIFs and PIFs to ensure that emissions tests are conducted accurately.
 - The audit reviews the inspectors' performance of procedures and their ability to correctly apply vehicle characteristics to ensure the correct test and standards are used on the vehicle.



Inspection Requirements

- The next two slides present tables that detail the inspection requirements of various vehicles based on their **weight class** and **fuel type**.
- The first table represents light/medium duty vehicles, the second represents heavy duty vehicles.
- ❖ These tables specify the regulatory requirements but not all are implemented yet. Please follow the prompts of your inspection workstation.

Light and Medium Duty Vehicle Inspection Requirements

Diesel and Gasoline I/M Programs Combined DEP and MVC Requirements										
Weight Class (GVWR)	Fuel Type	Model Year	Test Type							
			Smoke Opacity	Visible Smoke	OBD	Fuel Leak	Visible Fuel Cap	Indicator Light Check	Emission Control Apparatus Examination	Catalytic Converter Check
≤ 8,500 lbs	Gasoline	1995 and older	NA	Commercial vehicles only	NA	Commercial vehicles only	Commercial vehicles only	NA	NA	Commercial vehicles only, originally equipped (1975 and newer)
		1996 and newer	NA	All	All OBD-eligible	All	All	NA	NA	All
	Diesel	1996 and older	NA	Commercial vehicles only	NA	Commercial vehicles only	NA	NA	NA	NA
		1997 and newer	NA	All	All OBD-eligible	All	NA	NA	NA	NA
8,501 - 14,000 lbs	Gasoline	2007 and older	NA	Commercial vehicles only	NA	Commercial vehicles only	Commercial vehicles only	NA	NA	Commercial vehicles only, originally equipped (1975 and newer)
		2008 and newer	NA	All	All OBD-eligible	All	All	NA	NA	All
	Diesel	2007 and older	NA	Self inspect	NA	Self inspect	NA	Self inspect	Self inspect	NA
		2008 and newer	NA	Self inspect	NA	Self inspect	NA	Self inspect	Self inspect	NA

Heavy Duty Vehicle Inspection Requirements

Diesel and Gasoline I/M Programs Combined DEP and MVC Requirements										
Weight Class (GVWR)	Fuel Type	Model Year	Test Type							
			Smoke Opacity	Visible Smoke	OBD	Fuel Leak	Visible Fuel Cap	Indicator Light Check	Emission Control Apparatus Examination	Catalytic Converter Check
14,001 - 17,999 lbs	Gasoline	2013 and older	NA	Commercial vehicles only	NA	Commercial vehicles only	Commercial vehicles only	NA	NA	Commercial vehicles only, originally equipped (1975 and newer)
		2014 and newer	NA	All	All OBD-eligible	All	All	NA	NA	All
	Diesel	2013 and older	NA	Self inspect	NA	Self inspect	NA	Self inspect	Self inspect	NA
		2014 and newer	NA	Self inspect	NA	Self inspect	NA	Self inspect	Self inspect	NA
≥ 18,000 lbs	Gasoline	2013 and older	NA	Commercial vehicles only	NA	Commercial vehicles only	Commercial vehicles only	NA	NA	Commercial vehicles only, originally equipped (1975 and newer)
		2014 and newer	NA	All	All OBD-eligible	All	All	NA	NA	All
	Diesel (Annual)	2013 and older	All	All	NA	All	NA	DPF check: pre-2007 retrofitted and all 2007 and newer SCR check: 2010 and newer	All	NA
		2014 and newer	NA	All	All OBD-eligible	All	NA	All	All	NA

NJ's I/M Program Reporting & Data

- “The State is **required** to submit Annual Reports on the Enhanced I/M Program under 40 CFR 51.366, the data analysis and reporting section of the United States Environmental Protection Agency’s (USEPA's) rule on Inspection and Maintenance Program requirements, revised July 1, 2004”-NJDEP
- New Jersey’s Enhanced I/M program has an [Annual Report](#) that keeps track of all the information that is reported from the Inspection Program.
- The Annual Report represents a comprehensive and quality-assured collection of program statistics that are used as readily-available reference material.
- The DEP gains valuable insight into the inspection program data and operations while compiling this report.
 - This data is used to direct inspection operations, including correction of software deficiencies, allocation of auditing and training resources, targeting enforcement actions, and future inspection system planning.
 - As well, the DEP provides this report upon request to inspection programs in other jurisdictions and motorists in New Jersey who wish to be better informed about the State’s inspection process and results.