Control of Emissions from Motor Vehicles
Held on July 9th, 2019 at 2:00 pm
by Teleconference ***from the*** Nevada Division of Environmental Protection
4th Floor Great Basin Conference Room
901 South Stewart Street
Carson City, NV 89701
to the Nevada Division of Environmental Protection
Red Rock Room
2030 East Flamingo Road
Las Vegas, NV 89119

These minutes are prepared in compliance with NRS 247.035. Text is in summarized rather than verbatim format. For complete contents, please refer to meeting tapes on file at the Nevada Department of Motor Vehicles.

THIS MEETING WAS PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS ON July 2nd, 2019

Department of Motor Vehicles
555 Wright Way
Carson City, NV. 89711

Nevada State Library
100 N. Stewart St.
Carson City, NV. 89701

Department of Motor Vehicles
305 Galletti Way
Reno, NV. 89512

Clark County Department of Air Quality Management
500 Grand Central Pkwy
Las Vegas, NV. 89106

Washoe County District Health Department
1001 E. 9th St.
Reno, NV. 89512

Department of Motor Vehicles Website
www.dmvnv.gov

Department of Motor Vehicles
2621 East Sahara Ave.
Las Vegas, NV. 89104

1. Call to Order by the Chairman

Chairman Mike Sword called the meeting of the Advisory Committee on Control of Emissions from Motor Vehicles to order at 2:00 pm.

2. Roll Call

MEMBERS:	***Representing***	***Present***	***Primary***	***Alternate***	***Voting***
JD Decker	DMV / CED	☐	☒	☐	☐
Rodney Langston	CC/DAQEM	☐	☐	☒	☐
Mike Sword – Chairman	CC/DAQEM	☒	☒	☐	☒
Robert Tekniepe	CC/DAQEM	☒	☒	☐	☒
Shannon Rudolph	NDOA	☐	☐	☒	☐

William Striejewske	NDOA	☒	☒	☐	☒
Danilo Dragoni	NDEP	☒	☒	☐	☒
Joseph Perreira	NDEP	☒	☐	☒	☒
Sig Jaunarajs	NDEP	☒	☒	☐	☒
Ivie Hatt	DMV/CED	☒	☒	☐	☒
Louis Lanuza	DMV/CED	☐	☐	☒	☐
Mark Costa	NDOT	☒	☒	☐	☒
Sondra Rosenberg	NDOT	☐	☐	☒	☐
Araceli Pruett	CC/AQEM	☐	☐	☒	☐
Jeffrey Buss	U.S. EPA: Region 9	☐		Ex Officio	
Julie Hunter	WC-AQMD	☐	☐	☒	☐
Daniel Inouye	WC -AQMD	☒	☒	☐	☒
Charlene Albee	WC-AQMD	☐	☒	☐	☐
Yann Ling Barnes	WC-AQMD	☐	☐	☒	☐
Zheng Li	CC/AQEM	☐	☐	☒	☐
Shannon Rudolph	NDOA	☐	☐	☒	☐
Patricia Bobo	NDEP	☐	☐	☒	☐
David Foley	DMV	☐	☐	☒	☐
John Neese	DMV/CED	☒	☐	☒	☐

3. Public Introductions

INTERESTED PARTIES:	**Representing:**
Chris Robbins	Worldwide Environmental Products
Bill Delany	Worldwide Environmental Products
Faun Parks	DMV/CED
Elliot Malin	Dekra Capital Partners
Glenn Smith	DMV/CED
Christopher Patterson	DMV/CED
Jim Valerio	Parsons/ HEAT
Erin Flynn	Smog Busters
Eric Wahrer	Dekra Automotive North America
Rafael Arroyo	Smog Plus
Ryan Chesley	Dekra Automotive North America
Kristin Unity	OPUS Inspection

4. Public Comments

A. No Public Comments

5. Approval of Agenda Order

A. The Agenda was approved by the committee in the order as it was presented.

6. Approval of April 2019 Meeting Minutes:

April meeting minutes were approved by the committee with the following corrections: Page 3, item 7, under questions and answers first A; "Governor directed the MEP" should read "Governor directed the NDEP". Page 4, under questions and answers, last A "Those vehicles were destroyed" corrected to say "Those vehicles will be destroyed". Page 5, item 8, and section B; "Senate Bill EL8 NDA" corrected to say "Senate Bill 308 NDA".

7. Remote Sensing Presentation to Committee- Hager Environmental & Atmospheric Technoligies/Parson.

- **PowerPoint Presentation Available upon Request**

A. **Jim Valerio (Parsons/HEAT);** states Parsons partners with Hagar Environmental & Atmospheric Technologies (HEAT) which is a provider of remote sensing technology and is here to discuss some of the new applications.

B. Defines Emissions Detection And Reporting (EDAR) – branded technology from HEAT, simply put it is a laser based nondispersive infrared (NDIR) technology that detects an exhaust plume, images the exhaust plume, captures temperature/humidity and all of the gas concentrations, can take a full 3D visual image of the plume and plot it if need be.

C. It is a supplemental technology to emissions testing. Allows you to take a snap shot of a vehicle during its on road in use state.

D. Every jurisdiction that operates these programs (CO, VA, MO, OH, and TN) can set their own thresholds. What you are really using this technology for an educated exemption from the emissions test. You are trying to make a determination about whether or not you want to create convenience for your consumer base. The example 25% is nothing statutory or recommended by the Environmental Protection Agency (EPA) it is something the jurisdiction has to model/determine what is feasible.

E. Consumers can interact with mobile applications and a website to pay for and release emissions records to the Department of Motor Vehicles (DMV). Can also be used for public outreach and has locations where the devices are to complete emissions testing.

Q: Robert Tekniepe (CCAQ); question directed to the committee/DMV is this system something that you would supplement the current annual smog check program?

A: Jim Valerio (Parsons/HEAT); where we've implemented this technology it is to supplement and not to replace. Does not replace pass/fail emissions testing. It helps with what are more so termed the extreme cases whereby the very dirtiest and very cleanest of vehicles are very accurately detected by this remote sensing technology. It can easily identify high emitters in support of repair and on the cleanest side it supports convenience.

Q: Robert Tekniepe (CCAQ); from a regulatory standpoint if I read the I/M SIP correctly it does not specify what system would be used for the purpose of auditing the program, the 20,000 vehicle samplings, it does specify the pass/fail requirements, so if the I/M committee is wanting to use this for a supplemental to the pass/fail would it require an amendment to the Nevada I/M State Implementation Plan (SIP) and approval of that amendment by the EPA and the EPA will want to see some sort of analysis that would show that this system is as accurate if not more of what we currently have.

A: Sig Jaunarajs (NDEP); it would require a change to the SIP that currently only contains the 2 speed idle and OBD II test. Not sure where EPA stands but if other states are adopting this there is some ground that's already been proven so it might not be that difficult to go that way. That being said it would require a change to the SIP.

A: John Neese (DMV-CED); I've been in contact with VA, CO, CA and a few other states and this program is considered an enhancement since there is no way to check the mil light and the gas cap per the EPA requirement. Unless the EPA changes the rules then the Remote Sensing Device (RSD) is considered an enhancement only. Legislation would have to change to allow for Nevada to use RSD as a replacement for the current pass/fail and OBD II requirement.

Q: Robert Tekniepe (CCAQ); is this system contained in any SIP nationwide?

A: Jim Valerio (Parsons/HEAT); I am not aware of any.

Q: Sig Jaunarajs (NDEP); among the states who have adopted this technology in any form and are using it to screen out some of the cars that don't need an emissions test are those centralized or decentralized states?

A: Jim Valerio Parsons (Parsons/HEAT); a mix of both. Tennessee, Colorado are centralized. Ohio was formerly centralized, now they are test only facility so now they are decentralized environment. Virginia is decentralized for a very long time. Other states that do the audits or the evaluation, those are decentralized.

Q: Robert Tekniepe (CCAQ); possible concerns with this technology is what would happen if a registered owner just acquired a passing smog test, passes through an RSD and is identified as a high emitter. Does the registered owner have to come back in? Who pays for the test? What if a classic vehicle passes through an RSD?

A: Jim Valerio (Parsons/HEAT); it is up to the DMV ultimately. Analysis can be performed over time to make the determination whether or not a follow up test would need to be complete.

Q: Glenn Smith (DMV-CED); have you seen any reduction in gross emitters from when the program first started being used to now?

A: Jim Valerio (Parsons/HEAT); not seeing reductions as far as the heaviest emitters because there is not a lot of action being taken by vehicle owners and an even fewer that end up receiving notifications. The program enforcement against high emitters needs to be more aggressive to

ensure there are reductions. Since it is such a statistically small number it doesn't show much for change and additionally there isn't a lot of marketing occurring to help facilitate reductions.

Q: Glenn Smith (DMV-CED); from an enforcement standpoint it is being an active deterrent?

A: Jim Valerio (Parsons/HEAT); some claim that it is serving as a deterrent but it isn't being shown in the data. The data is showing a level rate of high-emitters, meaning vehicle owners are not addressing the polluting vehicles. Only enforcement helps with that. Our technology just provides awareness of these gross polluters. EPA / Clean Air benefit derives from reduction in gross emitters after all……

Q: Erik Wahrer (Dekra); every car passing under EDAR is being tested for emissions?

A: Jim Valerio (Parsons/HEAT); every vehicle receives a scan and it is held until the DMV determines how the data will be used.

Q: Erik Wahrer (Dekra); what is to keep an individual from changing a license plate to defeat the system since there is no VIN detections?

A: Jim Valerio (Parsons/HEAT); data analysis is the best answer. No system is perfect and statistically you would always require a pull out to obtain a confirmatory test to strengthen your statistical analysis.

Q: Erik Wahrer (Dekra); how does high wind effect the performance of the EDAR system?

A: Jim Valerio (Parsons/HEAT); the laser technology, NASA based technology, is not impacted by high winds. Wind may change the shape of the plume but since the technology is used to take an image of the entire plume shifting can be seen from the top down look. Today we have not seen a significant impact from high winds.

Q: Ryan Chesley (Dekra); what is your margin of error and how do you verify it?

A: Jim Valerio (Parsons/HEAT); we use R squared analysis/regression analysis on the data and the coefficient is in the high 99% range which is considered highly accurate by instrument standards so there is a high level of confidence in the instrument. It will never be as accurate as a 5 gas analyzer but it is highly accurate (accurate to 100 ppm or less).

Q: Rafael Arroyo (Smog Plus); what's the cost of this program to the State of Nevada?

A: Jim Valerio (Parsons/HEAT); typically the program is deployed at the same test fee rate that it is currently deployed. No cost to the State of Nevada. The consumer bares the cost just as they would on a centralized or decentralized program.

Q: Rafael Arroyo (Smog Plus); on the 100 ppm accuracy range mentioned is that a plus or minus value?

A: Jim Valerio (Parsons/HEAT); 4% of the data is accurate to 100 ppm a majority of the data (85%) is accurate to 10 ppm and a small percent (1%) of the data is accurate to 1 ppm. Depends of the condition of the time.

Q: Rafael Arroyo (Smog Plus); is the picture taken only of the license plate? Who analyzes the data if people are swapping plates on vehicles?

A: Jim Valerio (Parsons/HEAT); it takes a picture of the back of the vehicle. Data analysis is done at the State and in some cases the program funds additional State personnel to do that analysis.

Comments: Rafael Arroyo (Smog Plus); while we have the opportunity, I would suggest, as I have before in years past, as far as fraud detection somebody should look into updating the software on the emissions analyzers so when VIN don't match it rejects the test and doesn't let it go through - that would probably do a lot more for fraud production than this program.

Q: Erin Flynn (Smog Busters); there is currently an audit program in place with the current worldwide equipment, who audits this program technology/equipment and how do we know the results of the audits?

A: Jim Valerio (Parsons/HEAT); the audit of the data is done via the statistical audit. From the data set of the vehicles that pass under the EDAR you randomly select a number of vehicles that will receive confirmatory testings' at one of your stations. It won't be a direct comparison but will determine the validity of a pass/fail result. Some jurisdictions run an audit vehicle through a test site as well (drive by audits).

Q: Physical equipment audits?

A: Jim Valerio (Parsons/HEAT); the equipment identifies if the strip needs replacing. The laser degradation of this type has a half-life well beyond a 10 year mark. Any agreement would be codified in the scope of the agreement as far as the physical equipment audit requirements to include visual and drive by equipment type audits.

Q: Sig Jaunarajs (NDEP); what does it look like when an electric car passes through the RSD.

A: Jim Valerio (Parson/HEAT); the laser technology is designed to look at an exhaust plume. I don't believe it will detect it a vehicle without exhaust.

8. Informational Items

A. There no informational items.

9. Public Comments

A. There were no public comments

10. Next Meeting and Adjournment

A. **The next I/M Committee meeting will be held on October 8th at 2:00 p.m.**

B. **The meeting adjourned at 3:06 p.m.**