Appointment

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 12/9/2014 8:26:57 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Fernandez, Antonio [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d55116a355544048b06c0aa85f17aa7c-Fernandez, Antonio]; andrew.s.barren@gm.com
CC: Dalton, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e590ca117f84cc384adcf13b68b4358-Dalton, Joel]; Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]; Pidgeon, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dfa739a206f04aaea55fabad6939dd01-Pidgeon, Bill]; Snyder, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18260d02987d49e280fc03d2a8d18ddd-Snyder, Jim]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Healy, Stephen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1638b0a30364c7d98ea7af410a9cb2a-Healy, Stephen]; Good, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6a0a212fab8644b89798966a2fff3ab8-Good, David]

Subject: GM Discussion
Location: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE

Start: 1/21/2015 7:00:00 PM
End: 1/21/2015 8:30:00 PM
Show Time As: Busy

Andy – the soonest I can get a conference room (we are losing two prime conference rooms for an extended period) and staff is January 21. Let me know if this will work for GM.

Thanks,

David

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures
- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a)
- Allow test fuel for certification – Should be in the Final Rule tables
- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII

- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3
- AECD documentation

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 11/12/2014 6:45:22 PM
To: Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]
Subject: FW: Slides for Review Today
Attachments: EPA Duramax_NOx_2014-11-12.pptx

Just got this.

From: Jonathon Packard [mailto:jonathon.packard@gm.com]
Sent: Wednesday, November 12, 2014 1:45 PM
To: Randall C. Harvey; Wright, DavidA
Subject: Slides for Review Today

Hello David,

My apologies for the late material. Please see attached for our discussion today. Thanks.

Jon Packard
Emissions Compliance & Certification
248-343-9777
jonathon.packard@gm.com

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 1/20/2015 6:22:46 PM
To: Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Fernandez, Antonio [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d55116a355544048b06c0aa85f17aa7c-Fernandez, Antonio]; Dalton, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e590ca117f84cc384adcf13b68b4358-Dalton, Joel]; Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]; Pidgeon, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dfa739a206f04aaea55fabad6939dd01-Pidgeon, Bill]; Snyder, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18260d02987d49e280fc03d2a8d18ddd-Snyder, Jim]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Healy, Stephen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1638b0a30364c7d98ea7af410a9cb2a-Healy, Stephen]; Good, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6a0a212fab8644b89798966a2fff3ab8-Good, David]; Stout, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aacc110ba96542089a5c58d4ceb32dbb-Stout, Alan]
Subject: Additional Background from GM for tomorrow's 2 - 3:30 pm meeting

Additional background from GM for our meeting tomorrow at 2:00 pm. Let me know if you have any questions.

Regards,

David

From: Andrew S. Barren [mailto:andrew.s.barren@gm.com]
Sent: Tuesday, January 20, 2015 11:59 AM
To: Wright, DavidA
Cc: Randall C. Harvey
Subject: RE:

I'm going to expand a little on the topics below (see red text edits below). I'll likely need a data-show since we (GM'ers) can't do anything without it.

See you tomorrow,

Andy

From: Wright, DavidA [mailto:Wright.DavidA@epa.gov]
Sent: Tuesday, January 20, 2015 11:16 AM
To: Andrew S. Barren
Subject:

Andy,

I just want to confirm you are still planning to come to EPA tomorrow at 2 pm to discuss the following issues –

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures – I'll review the document we sent to ARB back in 2011 regarding the high level attributes of the test program and share with you what we discussed at the time with EPA (Chris Nevers / Steve Healy). I'm also hoping to roll out what our test plan is for the next coming years with respect to test procedures (GM modified / EPA J1711 / CARB new procedures)
- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a) – looking for something more concrete to share internally. Limited to diesels with SCR I assume, on FTP only?
- Allow test fuel for certification – Should be in the Final Rule tables – this is a timing thing, when can we use CA fuel for EPA testing, and visa versa.
- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions – we briefly covered this at the last meeting. I think we're on the same page.
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII – what SFTP target do we use since these applications are intended to be purely carryover bin 4's (unless we decide to do it on E10 / 150K).
- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3 – just looking for confirmation from EPA this is acceptable.
- AECD documentation – specific to light duty diesels. Guidance VPCD-98-13 outlines how the HD AECD's need to be developed (great detail), but this is limited to HD diesel engines (HDDE) I believe. In the past we bridged both HD engine and vehicle, so it made sense to just submit the full blown HDDE version. We may not have engine certs in the future, so can we revert to the lest overous LD version for LD and HD vehicles?

I still owe you guys a copy of our early Tier 3 credit worksheet (my bad, just busy)

Let me know if you have any changes to the topics.

Regards,

David

David A. Wright
Light-Duty Vehicle Center, Compliance Division
National Vehicle and Fuel Emissions Laboratory
Phone: (734) 214-4467
E-mail: wright.davida@epa.gov

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Appointment

From: Kim, Seong@ARB [skim@arb.ca.gov]
Sent: 3/4/2015 3:08:13 PM
To: Kim, Seong@ARB [skim@arb.ca.gov]; Nguyen, Duc@ARB [Duc.Nguyen@arb.ca.gov]; Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]

Subject: EGR flow requirements on GM LD diesels
Attachments: RE: EGR flow requirements on LD diesels
Location: Duc's office (conference call with EPA)

Start: 3/5/2015 7:30:00 PM
End: 3/5/2015 8:00:00 PM
Show Time As: Busy

Recurrence: (none)

Message

From: Andrew S. Barren [andrew.s.barren@gm.com]
Sent: 2/10/2015 3:46:07 PM
To: Kim, Seong@ARB [skim@arb.ca.gov]
Subject: RE: EGR flow requirements on LD diesels

I'm really sorry Seongyup. The copy I sent was really clear, must have been compressed when I sent it. I'm attaching the slide as an attachment. Again, sorry.

Andy

From: Kim, Seong@ARB [mailto:skim@arb.ca.gov]
Sent: Tuesday, February 10, 2015 10:33 AM
To: Andrew S. Barren
Subject: RE: EGR flow requirements on LD diesels

Hi Andy,

Thanks for your response. By the way, the EGR operation slide in your email is not easily readable. When I enlarged it to read, it blurred, again unreadable. Could you attach the slide and email it to me?

Thanks,
Seongyup

From: Andrew S. Barren [mailto:andrew.s.barren@gm.com]
Sent: Monday, February 09, 2015 9:57 AM
To: Kim, Seong@ARB
Cc: David W. Schrumpf; Randall C. Harvey; David B. Brown
Subject: RE: EGR flow requirements on LD diesels

Seongyup,

CBI / Ex. 4

CBI / Ex. 4

Please let me know if you need more information.

Andrew S. Barren
Technical Fellow - Emissions Regulations
andrew.s.barren@gm.com
T 248.388.8253 | C 248.388.8253

CBI / Ex. 4

CBI / Ex. 4

From: Kim, Seong@ARB [mailto:skim@arb.ca.gov]
Sent: Friday, February 06, 2015 6:11 PM
To: Andrew S. Barren

Cc: Randall C. Harvey; Nguyen, Duc@ARB
Subject: RE: EGR flow requirements on LD diesels

Hi Andy,

CBI / Ex. 4

Thanks,
Seongyup

From: Andrew S. Barren [mailto:andrew.s.barren@gm.com]
Sent: Thursday, January 22, 2015 6:57 AM
To: Nguyen, Duc@ARB; Lourenco, Jackie@ARB
Cc: Kim, Seong@ARB; Randall C. Harvey; David W. Schrumpf; David B. Brown
Subject: EGR flow requirements on LD diesels

Duc and Jackie,

Wondering if you have time for a call tomorrow (Friday, Jan 23rd) to discuss my favorite topic; ARB's requirement to flow EGR at all times on diesel engines? I'm open all day.

I'd like to recap the issue here.

CBI / Ex. 4

I reviewed our position and your concerns with EPA on two occasions. They are in agreement with GM's position. We are currently taking costly measures to meet ARB position, but as we continue to review this issue, the more we feel we have a valid position and will continue to pursue (hence my request for a call).

Thanks for the consideration and time.

Andrew S. Barren
Technical Fellow - Emissions Regulations
andrew.s.barren@gm.com
T 248.388.8253 | C 248.388.8253

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 7/26/2016 8:56:40 PM
To: Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]
Subject: RE: GM AECD Review

You need to send your comments then before COB Friday.

Thanks,

David

From: Ball, Joel
Sent: Tuesday, July 26, 2016 4:54 PM
To: Wright, DavidA <Wright.DavidA@epa.gov>
Subject: RE: GM AECD Review

I am out of the office next week but don't let that slow you down.

Joel Ball
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4238
ball.joel@epa.gov

-----Original Appointment-----
From: Wright, DavidA
Sent: Tuesday, July 26, 2016 4:48 PM
To: Ball, Joel; Cullen, Daniel
Cc: Anderson, Tom; Dalton, Joel; Ott, William; Pidgeon, Bill; Rojeck, Tristin; Snyder, Jim; Wehrly, Linc
Subject: GM AECD Review
When: Tuesday, August 02, 2016 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: AA-Room-Office-C35-ConfRoom/AA-OTAQ-OFFICE

Per J. Ball's Request

<< File: D06.6375 and D06.6385 AECD Document R2_CBI.pdf >> << File: T02.8358 and T02.8359 AECD Document CBI.pdf >> << File: 2.8L Diesel Sensor Table CBI.pdf >> << File: 6.6L Diesel Sensor Table CBI.pdf >>

Message

From: Wehrly, Linc [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=64E5F31CCB4841018441B3BF074842D0-WEHRLY, LINC]
Sent: 2/4/2016 4:38:35 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]
CC: Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Dalton, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e590ca117f84cc384adcf13b68b4358-Dalton, Joel]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]; Pidgeon, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dfa739a206f04aaea55fabad6939dd01-Pidgeon, Bill]; Snyder, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18260d02987d49e280fc03d2a8d18ddd-Snyder, Jim]
Subject: Re: MY17_DuramaxL5P_DDVCal Update_160204_v1.pptx

David,

I agree. We may also either ask CARB what they think or have GM follow-up with CARB and let us know. I'm concerned that if the changes impact or are due to OBD, I want to make sure they are comfortable.

Thanks,
Linc

Sent from my iPhone

On Feb 4, 2016, at 11:06 AM, Wright, DavidA <Wright.DavidA@epa.gov> wrote:

Linc,

Attached is a description of calibration changes GM is requesting approval to make on their DDV fleet for the 17 MY 6.6L Duramax diesel. CBI / Ex. 4

CBI / Ex. 4

Deliberative Process / Ex. 5

Let me know what you think about my proposed response and if you or anyone else have any additional questions or concerns.

Thanks,

David

From: Robert J. Vito [mailto:robert.j.vito@gm.com]
Sent: Thursday, February 04, 2016 10:00 AM
To: Wright, DavidA <Wright.DavidA@epa.gov>
Subject: FW: MY17_DuramaxL5P_DDVCal Update_160204_v1.pptx

David,
Here is the presentation we plan to cover today.

Thanks
Bob Vito

From: Stuart R Smith
Sent: Thursday, February 04, 2016 9:58 AM
To: Robert J. Vito <robert.j.vito@gm.com>
Subject: MY17_DuramaxL5P_DDVCal Update_160204_v1.pptx

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

<MY17_DuramaxL5P_DDVCal Update_160204_v1.pptx>

Message

From: Valentine, Julia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0D386C8E6ABC4DAB9A307A9411E36D47-VALENTINE,]
Sent: 12/15/2015 1:10:49 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Birgfeld, Erin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3383bc15dd5542e5bff5c3de13ba9bf2-EBIRGFEL]; Grundler, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d3be58c2cc8545d88cf74f3896d4460f-Grundler, Christopher]; Cook, Leila [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d4536ad140a1461781d78ca67921b02f-Cook, Leila]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]; Haugen, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5f7076c89c214ff5af375a2d788aba0c-Haugen, David]; Olechiw, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9f564b92ff96459ab606eb66e5892e2d-Olechiw, Michael]; Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Allen, Laura [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=39d8978145ba483fb484f0d2d81e9833-Allen, Laur]
Subject: Re: GM Press Release in Europe on fuel consumption and NOx emissions

Thanks very much for this, Byron.

Julia P. Valentine
Sent from USEPA iPhone

On Dec 15, 2015, at 8:04 AM, Bunker, Byron <bunker.byron@epa.gov> wrote:

> Earlier today, General Motors Opel division in Germany announced several changes they were making in response to ongoing concerns about real world fuel economy and NOx emissions. Attached is Opel's press release. GM is very keen to differentiate between their European and US products in this regard.
>
> If GM is asked what this announcement will mean for the US they intend to say:
> These improvements on Opel vehicles with diesel engines and SCR systems are not relevant to the Chevrolet and GMC vehicles with diesel engines sold in USA for several reasons:
>
> - <!--[if !supportLists]--><!--[endif]-->Vehicles with diesel engines sold in USA are different models than those for European and Korean markets. Emission system development, validation, and certification for US vehicles was conducted independently from vehicles for sale in EU or Korea.
> - <!--[if !supportLists]--><!--[endif]-->Vehicles certified for sale in US through EPA and ARB:

- <!--[if !supportLists]--><!--[endif]-->are developed to a wider range of operating conditions than those required for Europe, encompassed by specific test procedures (US06, SC03, 20°/50°F FTP, etc.);
- <!--[if !supportLists]--><!--[endif]-->demonstrate continuity of emission control system effectiveness throughout a broad range of operating conditions; and
- <!--[if !supportLists]--><!--[endif]-->have Emission System Control strategies well-documented and disclosed for review and approval by EPA and ARB through AECD documentation.

They are also calling for more transparency in the European process.

"Opel CEO Dr. Neumann also calls for improving the transparency between automakers and authorities in Europe. "In the USA, the companies disclose their complete calibration philosophy to authorities. I would like to see us embrace this practice in Europe." In this context, the Opel CEO also wants to suggest that all automakers that are active in Europe take part in a negotiated agreement for more transparency."

Buried in this press release is Opel's response to the German NGO's claims of a defeat device on the SCR equipped Opel Zafira. **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

GM's media contacts are:

Patrick Morrissey
+1 313 667 2945 office
+1 313 407 4548
patrick.e.morrissey@gm.com

Klaus-Peter Martin
+1 313 665 5293 office
+1 313 522 6303 mobile
klaus-peter.martin@gm.com

Thanks,

Byron

****

Byron Bunker
Director Compliance Division
Office of Transportation and Air Quality
Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, MI 48105
Bunker.Byron@epa.gov

Phone: (734) 214-4155
Mobile: (734) 353-9623
****

From: David P. Garrett [mailto:david.p.garrett@gm.com]
Sent: Tuesday, December 15, 2015 7:19 AM
To: Bunker, Byron; Wehrly, Linc; Wright, DavidA; Lourenco, Jackie@ARB
Cc: ahebert@arb.ca.gov
Subject: Opel press release on fuel consumption and NOx emissions

Today's Opel press release is attached and a link provided here:
http://media.opel.com/media/intl/en/opel/news.detail.html/content/Pages/news/intl/en/2015/opel/12-15-offensive-fuel-consumption-emissions.html
Corresponding actions are also taking place for Chevrolet vehicles with diesel engines and SCR systems sold in Korea. (Korea's emission regulations for diesel vehicle essentially mirror the current regulations in EU. The diesel engines and emission control systems in our Korean-market vehicles are common with those sold in Europe.)

As we discussed, the "improvements toward RDE" will primarily involve EGR and SCR system calibrations to improve NOx effectiveness over a wider band of ambient temperature operating conditions.

These improvements on Opel vehicles with diesel engines and SCR systems are not relevant to the Chevrolet and GMC vehicles with diesel engines sold in USA for several reasons:

- <!--[if !supportLists]--><!--[endif]-->Vehicles with diesel engines sold in USA are different models than those for European and Korean markets. Emission system development, validation, and certification for US vehicles was conducted independently from vehicles for sale in EU or Korea.
- <!--[if !supportLists]--><!--[endif]-->Vehicles certified for sale in US through EPA and ARB:
    - <!--[if !supportLists]--><!--[endif]-->are developed to a wider range of operating conditions than those required for Europe, encompassed by specific test procedures (US06, SC03, 20°/50°F FTP, etc.);
    - <!--[if !supportLists]--><!--[endif]-->demonstrate continuity of emission control system effectiveness throughout a broad range of operating conditions; and
    - <!--[if !supportLists]--><!--[endif]-->have Emission System Control strategies well-documented and disclosed for review and approval by EPA and ARB through AECD documentation.

Any media inquiries can be directed to:

Patrick Morrissey
+1 313 667 2945 office
+1 313 407 4548
patrick.e.morrissey@gm.com

Klaus-Peter Martin
+1 313 665 5293 office
+1 313 522 6303 mobile
klaus-peter.martin@gm.com

As always, please let me know if you have any questions or need more information.

Best Regards,
Dave.

David P. Garrett

Global Vehicle Emission Compliance
General Motors LLC

+1-248-684-3522 office
+1-248-330-2074 mobile
david.p.garrett@gm.com

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

<Opel Goes On the Offensive with Fuel Consumption and Emissions.pdf>

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 1/10/2018 10:18:20 PM
To: Cullen, Daniel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0feb8e3bbb3943a9afc1cbe32e40e3bc-Cullen, Dan]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]
CC: Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]
Subject: Draft letter to GM regarding diesel durability
Attachments: Draft Letter Diesel Durability 10 Jan 2018.docx

Deliberative Process / Ex. 5

Regards,

David

Appointment

From: Bunker, Byron [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DDF7BCF023D241A9A477A2DC75D5901C-BUNKER, BYRON]
Sent: 10/10/2016 9:19:46 AM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Cullen, Daniel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0feb8e3bbb3943a9afc1cbe32e40e3bc-Cullen, Dan]

Subject: GM Silverado Update
Location: N12

Start: 10/11/2016 3:30:00 PM
End: 10/11/2016 4:00:00 PM
Show Time As: Busy

Dan – thanks for the great summary of the Silverado status (copied below). Can the three of us get together on Tuesday to discuss?

Thanks – Byron

Testing Summary:

- We currently have two 2017 Silverado diesel pickups in our possession. One is from the 2B Test Group; the other from the Class 3 Test Group.
- The first pickup is being outfitted with a PEMS. The outfit will be complete Tuesday COB if everything goes smoothly. Deliberative Process / Ex. 5
  Deliberative Process / Ex. 5
- The second pickup will be monitored using the vehicle's onboard computer to look at NOx concentrations while driving. A data file was taken yesterday; I anticipate taking more throughout next week.
- David Wright and I already observed confirmatory (lab) certification tests of these Test Groups at the Milford PG.
- Deliberative Process / Ex. 5

Application summary:

- As of this morning, the applications for certification for these two vehicles are not in the request for certification queue (They have CSI's in the system but they have not done the final step in the process where the application is locked and sent to their certification rep).
- David Wright is the cert rep; he is out until Personal Matters / Ex. 6
- We have completed the first review of the AECD document. GM has addressed most of our questions. ARB staff also has questions for GM regarding this which GM has answered or is working on.
- Deliberative Process / Ex. 5

Final summary:
I do not anticipate that we would be ready to issue a certificate before 10/21.

Message

From: Nguyen, Duc@ARB [Duc.Nguyen@arb.ca.gov]
Sent: 3/2/2016 6:29:01 PM
To: Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]
CC: Lourenco, Jackie@ARB [Jackie.Lourenco@arb.ca.gov]; Garlow, Bonnie@ARB [Bonnie.Garlow@arb.ca.gov]
Subject: List of Upcoming 2016/2017 LD Diesels Upto 14,000# GVWR
Attachments: Upcoming diesel vehicles for 2016_2017MY_rev1.xlsx

Hi Linc:

Attached is a list for upcoming certification for MY2016-2017 that are known to us. Jackie asked me to forward it to you for our conference at 11 am PST today.

Duc

Appointment

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 12/9/2014 8:26:51 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Fernandez, Antonio [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d55116a355544048b06c0aa85f17aa7c-Fernandez, Antonio]; andrew.s.barren@gm.com
CC: Dalton, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e590ca117f84cc384adcf13b68b4358-Dalton, Joel]; Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]; Pidgeon, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dfa739a206f04aaea55fabad6939dd01-Pidgeon, Bill]; Snyder, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18260d02987d49e280fc03d2a8d18ddd-Snyder, Jim]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Healy, Stephen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1638b0a30364c7d98ea7af410a9cb2a-Healy, Stephen]; Good, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6a0a212fab8644b89798966a2fff3ab8-Good, David]; Stout, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aacc110ba96542089a5c58d4ceb32dbb-Stout, Alan]
BCC: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userdf897d9c]

Subject: GM Discussion
Location: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE

Start: 1/21/2015 7:00:00 PM
End: 1/21/2015 8:30:00 PM
Show Time As: Busy

Andy – the soonest I can get a conference room (we are losing two prime conference rooms for an extended period) and staff is January 21. Let me know if this will work for GM.

Thanks,

David

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures
- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a)
- Allow test fuel for certification – Should be in the Final Rule tables

- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII
- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3
- AECD documentation

Message

From: Kimber L. Sinacola [kimber.l.sinacola@gm.com]
Sent: 12/2/2013 4:00:31 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]
Subject: GM's 2015 MY Chassis Certification Preview Meeting Summary
Attachments: fg013 EPA LD Cert Preview.pdf

Kimber L. Sinacola
GM - Compliance & Certification
Email: kimber.l.sinacola@gm.com
Phone: 248.685.5641

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Kimber L. Sinacola [kimber.l.sinacola@gm.com]
Sent: 12/3/2013 4:48:10 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]
Subject: Applications for TG's FGMXD06.6355 and FGMXD06.6365
Attachments: CBI_FGMXD06.6365_APPIPT1_.PDF; CBI_FGMXD06.6355_APPIPT1_.PDF

David –
I am forwarding you a copy of the Application for Certification for the subject test groups so that you can begin your review. We are waiting on OBD approval, so cannot do an official Request for Certificate yet. When we do receive OBD approval, the timing will be critical to get these Certificates issued.
Thanks!
Kim
Kimber L. Sinacola
GM - Compliance & Certification
Email: kimber.l.sinacola@gm.com
Phone: 248.685.5641

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Doug DeVries [doug.devries@gm.com]
Sent: 10/24/2016 10:29:18 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]
Subject: RE: [EXTERNAL] RE: Updated on 6.6L certification requests

Thanks David. Yeah I saw all the emails flying around. The team is working on the responses. I am well aware and I knew this would be the case that both agencies need to satisfied before any approval is given. Thanks for keeping me in the loop.
I would suggest working with Bob Vito directly this week if you have any questions.

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: "Wright, DavidA" <Wright.DavidA@epa.gov>
Date: 10/25/16 7:21 AM (GMT+09:00)
To: Doug DeVries <doug.devries@gm.com>
Subject: [EXTERNAL] RE: Updated on 6.6L certification requests

Doug,

After sending my note to you this morning, California submitted a further question to Bob Vito (I believe you were cc'd on the e-mail) regarding PBI / Ex. 4 At this time, EPA is awaiting GM's response to this question. In addition, I have asked Bob to confirm the start of production date for these test groups. I expect to hear GM's response to the California AECD question along with our question regarding SOP tomorrow.

Regards,

David

David Wright
Light-Duty Vehicle Center – Compliance Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
(734) 214-4467

From: Doug DeVries [mailto:doug.devries@gm.com]
Sent: Monday, October 24, 2016 4:31 PM
To: Wright, DavidA <Wright.DavidA@epa.gov>
Subject: RE: [EXTERNAL] Updated on 6.6L certification requests

David,
Thanks for the notice below. Please continue to keep me informed.

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: "Wright, DavidA" <Wright.DavidA@epa.gov>
Date: 10/24/16 10:35 PM (GMT+09:00)
To: Doug DeVries <doug.devries@gm.com>
Cc: "Cullen, Daniel" <Cullen.Daniel@epa.gov>
Subject: [EXTERNAL] Updated on 6.6L certification requests

Doug,

I apologize for not sending you a note before leaving Friday. As you know, EPA did not issue a certificate for the diesel test groups on Friday. At this time, I am waiting to hear from CARB regarding their status and any questions they may have regarding our review or their review of your application. I expect to hear from California before the close of business today regarding their review and any further questions. I will provide you an update later today if necessary.

In addition, EPA has not completed all of the additional screening tests planned for the two heavy-duty test groups. The additional testing is going to be performed. Therefore, it is possible that there will be additional requests for information and details regarding these test groups post certification.

Please feel free to contact me if you have any additional questions or need additional information.

Regards,

David

David Wright
Light-Duty Vehicle Center – Compliance Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
(734) 214-4467

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited

and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Zaremski, Sara [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D40015F99F1C4082BB7AD8063B62FB9D-ZAREMSKI, SARA]
Sent: 6/12/2017 12:51:36 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]; Yang, Ching-Shih [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fce52f946ba64110bd742fbe2d0699db-Yang, Ching-Shih]
Subject: RE: AECDs for 2013 GM Duramax 6.6 L diesel

David,

Ching-Shih will be your last hope.

Ching-Shih – can you please see if you can find this file?
sara

From: Wright, DavidA
Sent: Thursday, June 08, 2017 5:45 PM
To: Zaremski, Sara <zaremski.sara@epa.gov>
Subject: FW: AECDs for 2013 GM Duramax 6.6 L diesel

Sara,

I have done a number of document searches with the Verify features I have (and think I know how to use) looking for the GM 2013 MY AECD Document Name and Letter Designation provided by GM in the appended e-mail. To date I have not found any documents in Verify. I am wondering if there is any way one of your staff could definitively search the database and tell me that there is no file titled CBI_DGMX_CORRES_DIESEL_RFA1AECD.pdf in Verify, or, if they do find it tell me how to access the file.

This is my last step before I tell GM the file is not in Verify.

Thanks,

David

From: Doug DeVries [mailto:doug.devries@gm.com]
Sent: Wednesday, June 07, 2017 3:40 PM
To: Wright, DavidA <Wright.DavidA@epa.gov>
Cc: Cullen, Daniel <Cullen.Daniel@epa.gov>; Andrew S. Barren <andrew.s.barren@gm.com>; Grant J Ovist <grant.ovist@gm.com>; Ball, Joel <ball.joel@epa.gov>
Subject: RE: AECDs for 2013 GM Duramax 6.6 L diesel

David,

Per your request, below are the list of AECD files & letter we have sent to EPA

If you have any questions or comment please do not hesitate to contact me.

MY	AECD Document Name	NOTES
2011	CBI_BGMXE_CORRESP_RFA1ACD_.pdf CBI_BGMX_COMMON_DIESEL_AECD_.pdf	*The one D. Wright has identified*
2012	CBI_CGMX_CORRES_DIESEL_RFA1ACD_.pdf	
2013	CBI_DGMX_CORRES_DIESEL_RFA1AECD.pdf	ML-DP007 (CARB)
2014	CBI_EGMX_DIESEL_EPA_AECD.pdf ep092_CBI_EGMX_CORRES_DIESEL_EPA_RFA1AECD	ML-EP092 (EPA) ML-EP092 (EPA)
2015	CBI_FGMX_CORRESP_6.6_AECD.pdf	ML-FP019 (CARB)
2016	CBI_GGMX_CORRESP_Subm of AECD_HD_Diesel.pdf CBI_GGMX_CORRESP_6.6_AECD_r1.pdf CBI_GGMX_CORRESP_6.6_AECD_r2.pdf CBI_GGMX_CORRESP_6.6_AECD_Summary of Changes.pdf	

Douglas H. DeVries
Global Propulsion Systems
Engineering Group Manager
Emission Compliance and Certification
doug.devries@gm.com
Cell 248.240.8594

GENERAL MOTORS

From: Wright, DavidA [mailto:Wright.DavidA@epa.gov]
Sent: Tuesday, June 06, 2017 12:00 PM
To: Doug DeVries <doug.devries@gm.com>
Cc: Cullen, Daniel <Cullen.Daniel@epa.gov>; Andrew S. Barren <andrew.s.barren@gm.com>; Grant J Ovist <grant.ovist@gm.com>; Ball, Joel <ball.joel@epa.gov>
Subject: [EXTERNAL] AECDs for 2013 GM Duramax 6.6 L diesel

Doug,

EPA is planning to review the AECDs for the 2013 GM Duramax 6.6 L. I did a quick search for AECD documents in Verify and found the file CBI_BGMX_COMMON_AECD_DIESEL_.pdf which includes a footer identifying the document as Modulation of Emission Control Strategies.docx. Page 9 of the document includes a table with the heading "Appendix Modulation of Emission Control Strategies (GM 6.6L Duramax)". This file has a footer date of January 25, 2010 and was submitted to Verify for the 2011 MY Initial Application for Certification. The document title GM entered into Verify is GM COMMON SEC – DIESEL AECD.

I did not find any other AECD documents in Verify for the 6.6 L Duramax until the 2017 MY submittal for the redesigned engine.

I am interested in knowing if there are other 6.6L GM Duramax AECD documents which have been submitted to the Agency after the 2011 MY AECD document and prior to the 2017 Duramax submittal which my search did not identify. If there are please provide me with the document title so that I can locate those documents. In particular, as noted above, EPA is interested in the 2013 GM Duramax 6.6 L.

Also, if there are no other documents in Verify for MYs 2012 through 2016 I am interested in knowing if the 2011 document describes all of the AECDs which would also be present in the 2013 GM Duramax, i.e. between 2011 and 2013 no additional AECDs were implemented and none of the described AECDs were modified or removed.

Let me know if you have any additional questions regarding these requests.

Regards,

David

David Wright
Light-Duty Vehicle Center – Compliance Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
(734) 214-4467

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 5/20/2015 9:08:46 PM
To: Healy, Stephen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1638b0a30364c7d98ea7af410a9cb2a-Healy, Stephen]; Schaefer, Ron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4cf03e763744da1a7baa1f2951ab544-Schaefer, Ron]
Subject: FW: Freeze/thaw DEF requirement
Attachments: CISD 09-04 Revised Guidance for Certification of HD Diesel Engines Using SCR Technologies.pdf; nrci-scr-web-conf.2011-07-25.pdf; epa-arb_scr_workshop_7-20-10.pdf

Since HD is taking the lead on these issues, I thought I would ask for your guidance regarding GM's questions below. I also am wondering if there is any newer guidance specifically addressing freeze/thaw requirements for DEF.

Thanks,

David

From: Andrew S. Barren [mailto:andrew.s.barren@gm.com]
Sent: Wednesday, April 29, 2015 12:19 PM
To: Wright, DavidA
Cc: Robert J. Vito
Subject: Freeze/thaw DEF requirement

David,

Sorry for the flurry of questions. A natural outcome of a perfect storm – personnel changes and new regulations. In this case, our long time diesel expert left GM and we continue to rebuild the tribal knowledge he had. In this case, it's DEF freeze/thaw requirements (per my phone message I left yesterday).

Attached are three documents. One EPA/ARB workshop presentation in 2010, a EPA off-road workshop presentation in 2011, and a 2009 EPA CISD. All discuss DEF thaw requirements (via an example test procedure) to be an acceptable AECD (procedure copied below).

PBI / Ex. 4

I'll be honest, there was dialogue about a 20 minute (either first or full dose) requirement. I cannot find anything in my documentation or searches that confirms that requirement, only the attached is what I've found of value. So I need your help.

A.) Is the requirement based on first dose and full dose, or just full dose?
B.) Are the bogies; First dose < 40 minutes, Full dose < 70 minutes at 20F?
C.) Is our test procedure acceptable to satisfy the AECD concern? Without slosh (part 3.b.), it might be too severe.

Thanks for your help.

Andy Barren
GM LLC

Test Procedure for Performance of DEF Dosing Freeze Protection Systems:

1. Prior to Procedure:
    - Temperature: DEF at 20° F (maximum)
2. Soak Conditions:
    - Temperature: 0° F (maximum)
    - Time: 72 hours or solid DEF (whichever occurs first)
3. Test Duty Cycle:
    - Temperature: 0° F (maximum)
    - Time: 70 minutes (maximum)
        a. Start engine and idle with no engine load for 20 minutes
        b. Operate engine at no more than 40% load at rated speed for up to 50 minutes

Andrew S. Barren
Technical Fellow - Emissions Regulations
andrew.s.barren@gm.com
T 248.388.8253 | C 248.388.8253

GENERAL MOTORS

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Appointment

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 12/16/2014 8:41:24 PM
To: Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Fernandez, Antonio [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d55116a355544048b06c0aa85f17aa7c-Fernandez, Antonio]; andrew.s.barren@gm.com
CC: Dalton, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e590ca117f84cc384adcf13b68b4358-Dalton, Joel]; Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]; Pidgeon, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dfa739a206f04aaea55fabad6939dd01-Pidgeon, Bill]; Snyder, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18260d02987d49e280fc03d2a8d18ddd-Snyder, Jim]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]; Wehrly, Linc [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]; Healy, Stephen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1638b0a30364c7d98ea7af410a9cb2a-Healy, Stephen]; Good, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6a0a212fab8644b89798966a2fff3ab8-Good, David]
BCC: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userdf897d9c]

Subject: GM Discussion
Location: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE

Start: 1/21/2015 7:00:00 PM
End: 1/21/2015 8:30:00 PM
Show Time As: Tentative

When: Wednesday, January 21, 2015 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*~*

Andy – the soonest I can get a conference room (we are losing two prime conference rooms for an extended period) and staff is January 21. Let me know if this will work for GM.

Thanks,

David

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures

- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a)
- Allow test fuel for certification – Should be in the Final Rule tables
- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII
- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3
- AECD documentation

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 12/10/2014 8:49:44 PM
To: Anderson, Tom [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34a82246d5d548a1bb4e9d017aea925d-Anderson, Tom]
Subject: RE: GM Discussion

Will do – not sure I'm going to get anything before the meeting though…

Hope you're doing well.

Regards,

David

From: Anderson, Tom
Sent: Wednesday, December 10, 2014 3:31 PM
To: Wright, DavidA
Subject: RE: GM Discussion

David,

If you get any information from GM before the meeting could you send it out to us?

Tom

-----Original Appointment-----
From: Wright, DavidA
Sent: Tuesday, December 09, 2014 3:27 PM
To: Ball, Joel; Fernandez, Antonio; andrew.s.barren@gm.com
Cc: Dalton, Joel; Anderson, Tom; Pidgeon, Bill; Snyder, Jim; Ott, William
Subject: GM Discussion
When: Wednesday, December 17, 2014 9:00 AM-10:30 AM (GMT-05:00) Eastern Time (US & Canada).
Where: AA-Room-Office-N66-ConfRoom/AA-OTAQ-OFFICE

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures
- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a)
- Allow test fuel for certification – Should be in the Final Rule tables
- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII
- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3

- AECD documentation

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 1/20/2015 6:20:46 PM
To: Andrew S. Barren [andrew.s.barren@gm.com]
CC: Randall C. Harvey [randall.c.harvey@gm.com]
Subject: RE:

OK, we'll be sure to have a projector available.

Regards,

David

From: Andrew S. Barren [mailto:andrew.s.barren@gm.com]
Sent: Tuesday, January 20, 2015 11:59 AM
To: Wright, DavidA
Cc: Randall C. Harvey
Subject: RE:

I'm going to expand a little on the topics below (see red text edits below). I'll likely need a data-show since we (GM'ers) can't do anything without it.

See you tomorrow,

Andy

From: Wright, DavidA [mailto:Wright.DavidA@epa.gov]
Sent: Tuesday, January 20, 2015 11:16 AM
To: Andrew S. Barren
Subject:

Andy,

I just want to confirm you are still planning to come to EPA tomorrow at 2 pm to discuss the following issues –

Requested Discussion Topics –

- Brief introduction for EPA to California GM-modified PHEV test procedures – I'll review the document we sent to ARB back in 2011 regarding the high level attributes of the test program and share with you what we discussed at the time with EPA (Chris Nevers / Steve Healy). I'm also hoping to roll out what our test plan is for the next coming years with respect to test procedures (GM modified / EPA J1711 / CARB new procedures)
- Diesel ammonia slip requirements – limitations and levels allowed documentation other than 86.1810-01(a) – looking for something more concrete to share internally. Limited to diesels with SCR I assume, on FTP only?
- Allow test fuel for certification – Should be in the Final Rule tables – this is a timing thing, when can we use CA fuel for EPA testing, and visa versa.
- Diesel EGR usage – ARB expecting manufacturers using EGR to flow EGR at all operating conditions – we briefly covered this at the last meeting. I think we're on the same page.
- Bin110 SFTP standards – Manufacturer defines FEL or uses LEVIII – what SFTP target do we use since these applications are intended to be purely carryover bin 4's (unless we decide to do it on E10 / 150K).

- Confirm Bin395 can be performed at 120K useful life. But if done at 150K counts as Tier3 – just looking for confirmation from EPA this is acceptable.
- AECD documentation – specific to light duty diesels. Guidance VPCD-98-13 outlines how the HD AECD's need to be developed (great detail), but this is limited to HD diesel engines (HDDE) I believe. In the past we bridged both HD engine and vehicle, so it made sense to just submit the full blown HDDE version. We may not have engine certs in the future, so can we revert to the lest overous LD version for LD and HD vehicles?

I still owe you guys a copy of our early Tier 3 credit worksheet (my bad, just busy)

Let me know if you have any changes to the topics.

Regards,

David

David A. Wright
Light-Duty Vehicle Center, Compliance Division
National Vehicle and Fuel Emissions Laboratory
Phone: (734) 214-4467
E-mail: wright.davida@epa.gov

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Grant J Ovist [grant.ovist@gm.com]
Sent: 6/12/2017 6:56:38 PM
To: Wright, DavidA [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f14a47c701547479b12bee35117d0a9-Wright, David A.]
Subject: Automatic reply: AECDs for 2013 GM Duramax 6.6 L diesel

Thank you for your message. I will be out of the office Wednesday June 7 through Wednesday June 14th.
I will be checking emails periodically but responses may be delayed during this time. For AECD topics, please forward a copy of your email to Igor Anilovich at igor.anilovich@gm.com
Please call or text me at 586-709-2689 or contact Jon Packard (248-343-9777) for urgent issues.

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 10/11/2016 12:52:17 PM
To: Cullen, Daniel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0feb8e3bbb3943a9afc1cbe32e40e3bc-Cullen, Dan]; Ott, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e336c9b18744fe7aedff42ebd445c41-Ott, William]
Subject: FW: GM Presentation on SCR/DEF overview
Attachments: SCR_DEF_System_control_and_diagnostic_strategies_overview_v2_sf_04Oct16.pptx

I don't think anyone else attended our meeting with GM – if they did, and I am forgetting they were there, feel free to forward this.

Regards,

David

From: Doug DeVries [mailto:doug.devries@gm.com]
Sent: Thursday, October 06, 2016 9:33 AM
To: Wright, DavidA <Wright.DavidA@epa.gov>
Subject: GM Presentation on SCR/DEF overview

David,
Attached please find the SCR/DEF system information that we shared yesterday. It was a very good discussion, I hope it was what you were looking for.

If you or anyone else on your team has any questions, please do not hesitate to contact me.

Regards,

Douglas H. DeVries
Global Propulsion Systems
Engineering Group Manager
Emission Compliance and Certification
doug.devries@gm.com
Cell 248.240.8594

GENERAL MOTORS

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Message

From: Wright, DavidA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F14A47C701547479B12BEE35117D0A9-WRIGHT, DAVID A.]
Sent: 10/25/2016 5:05:27 PM
To: Cullen, Daniel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0feb8e3bbb3943a9afc1cbe32e40e3bc-Cullen, Dan]
Subject: FW: Additional questions for AECD sections 8 and 10 of HGMXD06.6375 and HGMXD06.6385

FYI - David

From: Robert J. Vito [mailto:robert.j.vito@gm.com]
Sent: Tuesday, October 25, 2016 1:02 PM
To: Kim, Seongyup@ARB <Seongyup.Kim@arb.ca.gov>
Cc: Doug DeVries <doug.devries@gm.com>; Grant J Ovist <grant.ovist@gm.com>; Wright, DavidA <Wright.DavidA@epa.gov>
Subject: RE: Additional questions for AECD sections 8 and 10 of HGMXD06.6375 and HGMXD06.6385

Seongyup,
Please see the answers below.

Thanks
Bob Vito

From: Kim, Seongyup@ARB [mailto:Seongyup.Kim@arb.ca.gov]
Sent: Monday, October 24, 2016 12:57 PM
To: Robert J. Vito <robert.j.vito@gm.com>
Cc: Doug DeVries <doug.devries@gm.com>; Grant J Ovist <grant.ovist@gm.com>; Wright, DavidA (Wright.DavidA@epa.gov) <Wright.DavidA@epa.gov>
Subject: [EXTERNAL] RE: Additional questions for AECD sections 8 and 10 of HGMXD06.6375 and HGMXD06.6385

Bob,

I have follow-up questions to the PBI / Ex. 4

PBI / Ex. 4

PBI / Ex. 4

Thanks,
Seongyup

From: Robert J. Vito [mailto:robert.j.vito@gm.com]
Sent: Thursday, October 20, 2016 8:23 AM
To: Kim, Seongyup@ARB
Cc: Doug DeVries; Grant J Ovist; Wright, DavidA (Wright.DavidA@epa.gov)
Subject: RE: Additional questions for AECD sections 8 and 10 of HGMXD06.6375 and HGMXD06.6385

Seongyup,
The attachment contains the answers to your 6.6L diesel AECD questions. The AECD document has also been updated as a result of the questions. A copy is attached, and Kim Sinacola will submit it into DMS.

The AECD document has been updated as follows:

PBI / Ex. 4

Thanks
Bob Vito

From: Kim, Seongyup@ARB [mailto:Seongyup.Kim@arb.ca.gov]
Sent: Wednesday, October 12, 2016 1:06 PM
To: Robert J. Vito <robert.j.vito@gm.com>
Cc: Doug DeVries <doug.devries@gm.com>
Subject: [EXTERNAL] Additional questions for AECD sections 8 and 10 of HGMXD06.6375 and HGMXD06.6385

Hi Bob,

I have additional questions to Sections 8 and 10. Please see the attached.

Thanks,
Seongyup

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

Confidentiality Note: This message is intended only for the person or entity to which it is addressed. It may contain confidential and/or privileged material. Any review, transmission, dissemination or other use, or taking of any action in reliance upon this message by persons or entities other than the intended recipient is prohibited and may be unlawful. If you received this message in error, please contact the sender and delete it from your computer.