

ECMPS Reporting Requirements Related to the Amendments to the Protocol Gas Verification Program and Minimum Competency Requirements for Air Emissions Testing

I. Introduction

The purpose of this document is to provide guidance for complying with the Emission Collection and Monitoring Plan System (ECMPS) reporting requirements related to the amendments to the Protocol Gas Verification Program (PGVP) and Minimum Competency Requirements for Air Emissions Testing (AETB). The final rule was published in the Federal Register (FR) on March 28, 2011. A copy of the rule is available on Regulations.gov (<http://www.regulations.gov/>) in Docket No. EPA-HQ-OAR-2009-0837 and on <http://www.epa.gov/airmarkets/emissions/pgvp.html>. These amendments have new record keeping requirements that include the submission of additional data elements in the files reported to EPA via ECMPS. The March 28, 2011 rule requires PGVP information to be recorded starting on September 26, 2011, and submitted prior to or concurrent with the submittal of the third quarter 2011 electronic quarterly emissions report. AETB information must be recorded starting on March 27, 2012, and submitted prior to or concurrent with the submittal of the first quarter 2012 electronic quarterly emissions report. The direct final rule corrections published in the Federal Register on August 12, 2011 do not affect the PGVP or AETB programs in any way. For more information, see the EPA website at <http://www.epa.gov/airmarkt/emissions/pgvp.html>.

In accordance with the record keeping requirements of these amendments, the ECMPS XML file schemas and Client Tool application were changed beginning in March 2011, with additional refinement in the June and September 2011 releases. Special items of note during the 2011 Q3 implementation period and beyond:

- PGVP data will be required beginning September 26, 2011. Emissions files for the 2011 Q3 reporting period are expected to contain PGVP data for daily calibration tests beginning on September 26, 2011. Sources may elect to report daily calibration PGVP data prior to the effective date. However, all data fields must be complete in that event as partial daily calibration PGVP data will not be accepted.
- Vendor ID's are year specific. The vendor ID at the time of purchase or delivery of the cylinder should be used for reporting purposes. For example, if a cylinder is purchased or delivered on December 15, 2011, the 2011 vintage vendor ID year should be reported even if the cylinder is not placed into service until 2012.
- Gas Type Code is defined by the type of certified components. For example, if a cylinder gas contains the certified components of SO₂, NO and CO₂ with a balance gas, then the gas type code would SNC2.
- Report Gas Type Code "AIR" when using conditioned and purified ambient air that meets either paragraphs (2) or (3) in the zero air material definition in § 72.2 that is produced by a CEMS or CEMS conditioning system, only when it is used as a high-level O₂ gas for an oxygen analyzer. Do not report AIR when used to zero an analyzer. Do not report the Cylinder ID, PGVP Vendor ID, or the Expiration Date. [Note: Part 75,

Appendix A, § 2.1.3 only allows purified instrument air to be used as a high-level calibration material for an oxygen analyzer, not ambient air in a cylinder, unless the cylinder is an oxygen calibration gas meeting the requirements in Part 75, Appendix A, Section 5.1.]

- For reporting PGVP data for the low level calibration of a reference analyzer used in RATA testing if zero gas is used (see Part 60, Appendix A-4, Method 7E, § 3.3) do not submit any PGVP data for the Low level calibration for any test data submitted prior to the release of the 4Q2011 version of ECMPS. Only report PGVP data for the low level calibration of the reference analyzer when non-zero low level calibration gases are used. After the 4Q2011 release, EPA will add a new Gas Type Code of “Zero” to be reported when zero level gas is used for the low level calibration of the reference monitors. When this code is used, the Cylinder ID, PGVP Vendor ID, and the Expiration Date should be left blank.

The following is a summary of the changes that have been made to the ECMPS XML file schemas and Client Tool application:

- Monitoring Plan Data

The CALIBRATION STANDARD DATA record was removed from the schema. (The Client Tool is able to process legacy XML files containing this data; however, the data will not be imported or viewable in the Client Tool.)

- QA and Certification Data

Two new complex data elements have been added to the schema: the PROTOCOL GAS DATA record and the AIR EMISSION TESTING DATA record. The Client Tool has also been modified to allow this data to be entered manually via data entry screens. (The Client Tool is able to process legacy XML files that do not contain these new elements; however, if these files contain tests affected by the new requirements conducted on or after the Required Reporting Dates and do not contain the new data elements, these tests will receive evaluation errors indicating that the new data elements are missing. Users are able to enter these data elements manually via the data entry screens.)

- Emissions Data

Four new data elements have been added to the DAILY CALIBRATION DATA record. (The Client Tool will be able to process legacy XML files that do not contain these new elements; however, if these files contain daily calibration tests conducted on or after the Required Reporting Dates and do not contain the new data elements, these tests will receive evaluation errors indicating that the new data elements are missing.)

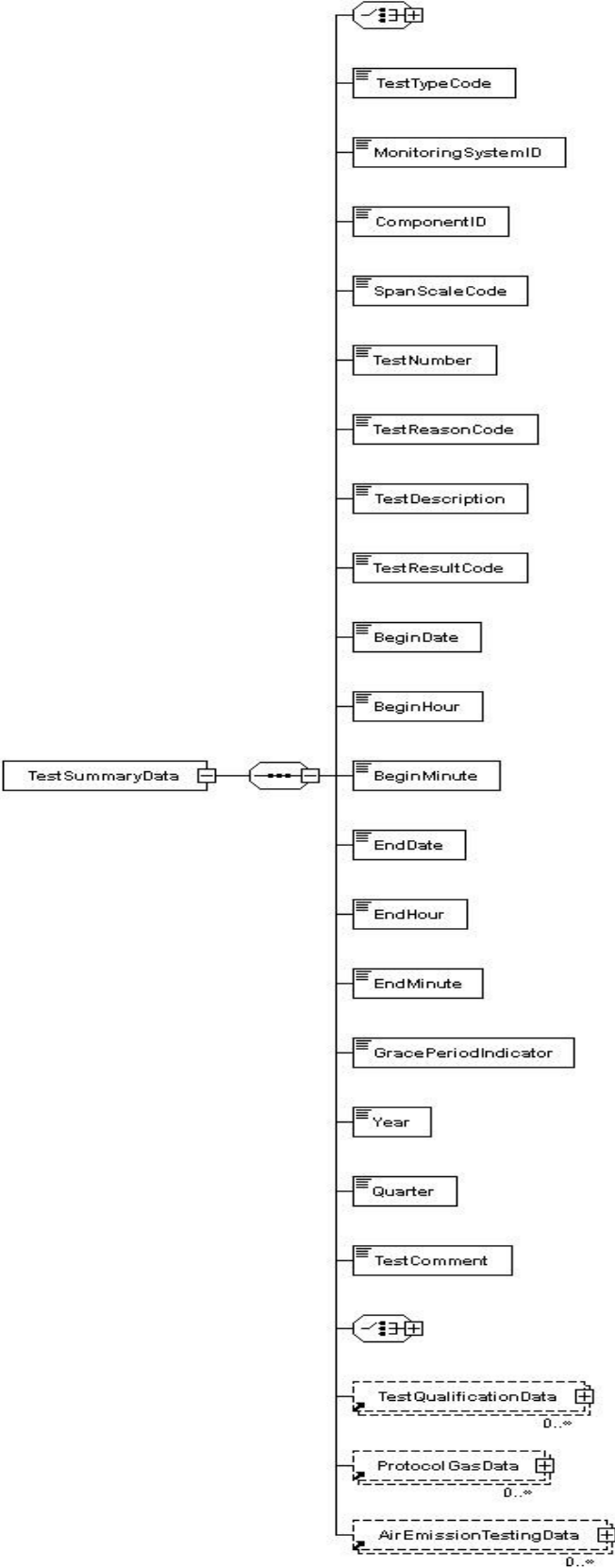
The revised XML schemas have been posted on the ECMPS Support Website.

II. QA and Certification Data Reporting Instructions

October 17, 2011

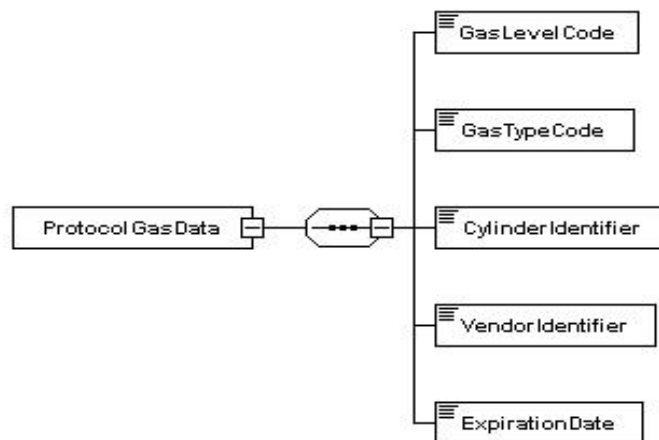
Two complex data elements have been added to the QA and Certification Data schema: the PROTOCOL GAS DATA record for reporting the new PGVP data elements and the AIR EMISSION TESTING record for reporting the new Air Emission Test data elements. Both records are direct dependents of the TEST SUMMARY DATA record (Figure 1).

Figure 1
TEST SUMMARY DATA XML Elements



A. PROTOCOL GAS DATA

Figure 2
PROTOCOL GAS DATA XML Elements



Description of Data

Report a PROTOCOL GAS DATA record for each cylinder of gas used during the performance of a linearity check or during a RATA conducted using one of the instrumental reference methods (6C, 7E, or 3A). For a linearity check report a record for each cylinder that contains the reference gases. A minimum of three records should be reported, one for each gas level (High, Mid, and Low) of the test. For RATA, Appendix E, and LME fuel or unit default tests conducted using Method 6C, 7E, or 3A report one record for each cylinder used to determine analyzer calibration error, drift, and system bias. A minimum of three records should be reported, one for each gas level (High, Mid, and Low).

Specific Considerations

- You must report a PROTOCOL GAS DATA record when using standard reference material, NIST-traceable reference material, gas manufacturer's intermediate standard, research gas mixture, or SRM-equivalent compressed gas primary reference material in place of an EPA Protocol gas. Report all data elements in this record except the PGVP Vendor ID.
- Per §75.21(g)(6), you may use a non-expired EPA Protocol gas acquired from a vendor not participating in the PGVP as long as the cylinder was acquired on or prior to May 27, 2011. Report a PROTOCOL GAS DATA record for each cylinder acquired from a vendor not participating in the PGVP program. Report all data elements, reporting "NONPGVP" as the PGVP Vendor ID.

Table 1
Cylinder Compliance Dates

	On or Before May 27, 2011	After May 27, 2011	Need to Procure from PGVP Participant?
Certified	X		No
Ordered	X		
Certified		X	Yes
Ordered		X	
Certified	X		No
Ordered		X	
Certified		X	No
Ordered	X		

Note: Official recordkeeping and reporting of PGVP Vendor IDs starts on September 26, 2011. If an EPA Protocol gas production site is removed from the list of PGVP participants on the same date as or after the date on which a particular cylinder has been certified or ordered, continue to report the PGVP Vendor ID for that cylinder. When the fourth column says “No”, report “NONPGVP” as the PGVP Vendor ID.

- When conducting a RATA of a NOX-diluent monitoring system, report a PROTOCOL GAS DATA record for each cylinder used to determine analyzer calibration error, drift, and system bias for both the NOX and the diluents components of the reference method monitoring system. If you use separate cylinders for the NOX and the diluent gas, you should report at least six records, one for each gas level (High, Mid, and Low) of each gas. If you use cylinders that contain a blend of the NOX and the diluent gas, you should report at least three records, one for each gas level (High, Mid, and Low) of the blend.

PROTOCOL GAS DATA Elements

Gas Level Code

Required: Yes

Element Name: GasLevelCode

Report a calibration gas level code of HIGH, MID, or LOW to indicate the concentration of the gas in the cylinder. The definition of a high-level, mid-level, and low-level calibration gas can be found in the Part 75, Appendix A, Section 5.2, and in EPA Reference Method 7E for RATAs.

Gas Type Code

Required: Yes

Element Name: GasTypeCode

Report one of the gas type codes in Table 2 to indicate the type of gas in the cylinder.

Table 2
Gas Type Codes and Descriptions

Code	Description
SO2	EPA Protocol gas standard consisting of a single certified component, SO ₂ , and a balance gas
NO	EPA Protocol gas standard consisting of a single certified component, NO, and a balance gas
NO2	EPA Protocol gas standard consisting of a single certified component, NO ₂ , and a balance gas
CO2	EPA Protocol gas standard consisting of a single certified component, CO ₂ , and a balance gas
O2	EPA Protocol gas standard consisting of a single certified component, O ₂ , and a balance gas
SN	EPA Protocol gas standard consisting of two certified components, SO ₂ and NO, and a balance gas
SN2	EPA Protocol gas standard consisting of two certified components, SO ₂ and NO ₂ , and a balance gas
SC	EPA Protocol gas standard consisting of two certified components, SO ₂ and CO, and a balance gas
SC2	EPA Protocol gas standard consisting of two certified components, SO ₂ and CO ₂ , and a balance gas
SO	EPA Protocol gas standard consisting of two certified components, SO ₂ and O ₂ , and a balance gas
NX	EPA Protocol gas standard consisting of two certified components, NO and NO ₂ , and a balance gas
NC	EPA Protocol gas standard consisting of two certified components, NO and CO, and a balance gas
NC2	EPA Protocol gas standard consisting of two certified components, NO and CO ₂ , and a balance gas
N2C	EPA Protocol gas standard consisting of two certified components, NO ₂ and CO, and a balance gas
N2C2	EPA Protocol gas standard consisting of two certified components, NO ₂ and CO ₂ , and a balance gas
OC	EPA Protocol gas standard consisting of two certified components, O ₂ and CO, and a balance gas
OC2	EPA Protocol gas standard consisting of two certified components, O ₂ and CO ₂ , and a balance gas
SNX	EPA Protocol gas standard consisting of three certified components, SO ₂ , NO, and NO ₂ , and a balance gas
SNC	EPA Protocol gas standard consisting of three certified components, SO ₂ , NO, and CO, and a balance gas
SNC2	EPA Protocol gas standard consisting of three certified components, SO ₂ , NO, and CO ₂ , and a balance gas
SN2C	EPA Protocol gas standard consisting of three certified components, SO ₂ , NO ₂ , and CO, and a balance gas
SN2C2	EPA Protocol gas standard consisting of three certified components, SO ₂ , NO ₂ , and CO ₂ , and a balance gas

Code	Description
SOC	EPA Protocol gas standard consisting of three certified components, SO ₂ , O ₂ , and CO, and a balance gas
NCC	EPA Protocol gas standard consisting of three certified components, NO, CO, and CO ₂ , and a balance gas
N2CC	EPA Protocol gas standard consisting of three certified components, NO ₂ , CO, and CO ₂ , and a balance gas
NXC	EPA Protocol gas standard consisting of three certified components, NO, NO ₂ , and CO, and a balance gas
NXC2	EPA Protocol gas standard consisting of three certified components, NO, NO ₂ , and CO ₂ , and a balance gas
OCC	EPA Protocol gas standard consisting of three certified components, O ₂ , CO, and CO ₂ , and a balance gas
SNXC	EPA Protocol gas standard consisting of four certified components, SO ₂ , NO, NO ₂ , and CO, and a balance gas
SNXC2	EPA Protocol gas standard consisting of four certified components, SO ₂ , NO, NO ₂ , and CO ₂ , and a balance gas
SNCC	EPA Protocol gas standard consisting of four certified components, SO ₂ , NO, CO, and CO ₂ , and a balance gas
SN2CC	EPA Protocol gas standard consisting of four certified components, SO ₂ , NO ₂ , CO, and CO ₂ , and a balance gas
NXCC	EPA Protocol gas standard consisting of four certified components, NO, NO ₂ , CO, and CO ₂ , and a balance gas
SNXCC	EPA Protocol gas standard consisting of five certified components, SO ₂ , NO, NO ₂ , CO, and CO ₂ , and a balance gas
APPVD	Other EPA-approved EPA Protocol gas blend (see note below)
AIR	Zero Air Material (instrument air with no cylinder and meeting the requirements of paragraphs (2) or (3) of the ZAM definition in § 72.2)
SRM	Standard reference material
NTRM	NIST-traceable reference material
GMIS	Gas manufacturer's intermediate standard
RGM	Research gas mixture
PRM	SRM-equivalent compressed gas primary reference material
ZERO	Zero level gas used for the low level calibration of a reference analyzer used in RATA testing (Note: Do not use this code until the 4Q2011 version of ECMPS has been released).

Note: If you use a blend of EPA Protocol gases that is not present in this table, you may report a value of "APPVD", but you will need to contact EPA before submitting the data in order to get permission to use this code.

Cylinder Identifier

Required: No

Element Name: CylinderIdentifier

Report the vendor-assigned identification or serial number found on the cylinder.

For AIR or ZERO, leave this field blank.

Vendor Identifier

Required: No

Element Name: VendorIdentifier

For an EPA Protocol gas, report the EPA-assigned PGVP Vendor ID of the production site that supplied the cylinder. An up-to-date list of PGVP Vendor IDs is located on the EPA website <http://www.epa.gov/airmarkets/emissions/pgvp-detail.html>, and can also be accessed via the ECMPS Support website.

Report "NONPGVP" if the cylinder was purchased from a non-participating vendor on or prior to May 27, 2011 (see Table 1 Note, above).

Leave this field blank if the Gas Type Code is AIR, ZERO, SRM, NTRM, GMIS, RGM, or PRM.

Expiration Date

Required: No

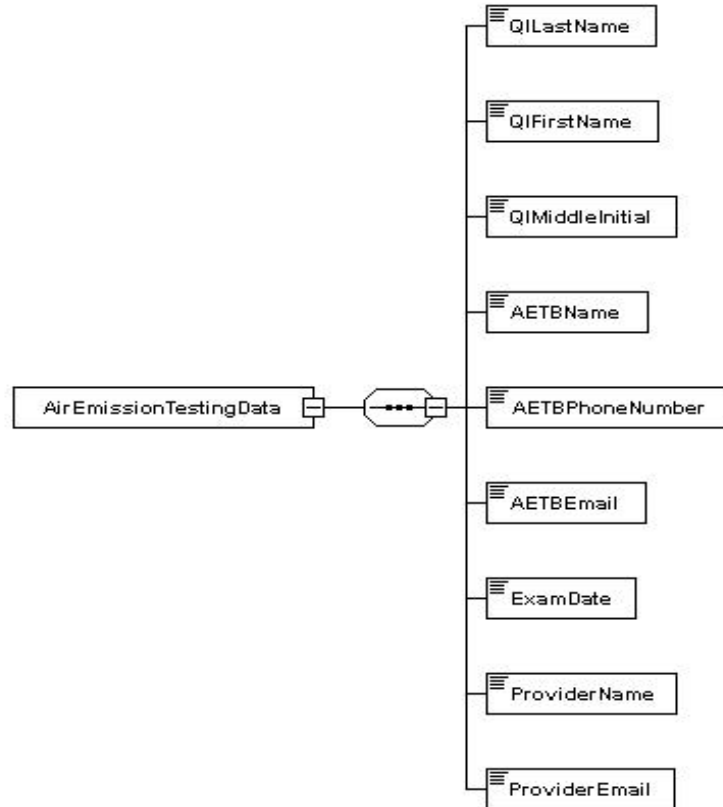
Element Name: ExpirationDate

For an EPA Protocol gas, SRM, NTRM, GMIS, RGM, or PRM, report the cylinder's expiration date.

Leave this field blank if the Gas Type Code is AIR or ZERO.

B. AIR EMISSION TESTING DATA

Figure 3
AIR EMISSION TESTING DATA XML Elements



Description of Data

Report at least one AIR EMISSION TESTING DATA record for each RATA, Appendix E Test, and LME Unit Default Test. One record should be reported for each on-site Qualified Individual from an Air Emission Testing Body who conducted or oversaw the test. The Qualified Individual must be qualified for the methods employed in the test.

AIR EMISSION TESTING DATA Elements

QI Last Name Required: Yes
ElementName: QILastName

Report the last name of the on-site Qualified Individual who conducted or oversaw the test.

QI First Name Required: Yes
ElementName: QIFirstName

Report the first name of the on-site Qualified Individual who conducted or oversaw the test.

QI Middle Initial Required: No
ElementName: QIMiddleInitial

Report the middle initial of the on-site Qualified Individual who conducted or oversaw the test.

AETB Name Required: Yes
ElementName: AETBName

Report the name of the Air Emission Testing Body that performed the test.

AETB Phone Number Required: Yes
ElementName: AETBPhoneNumber

Report the phone number of the Air Emission Testing Body that performed the test. The number should contain dashes and be formatted as 999-999-9999. Phone number extensions should not be reported.

AETB Email Required: Yes
ElementName: AETBEmail

Report the email address of the Air Emission Testing Body that performed the test.

ExamDate Required: Yes
ElementName: ExamDate

Report the date that the on-site Qualified Individual took and passed the relevant qualification exam(s) for the reference method(s) that were performed during the test.

Provider Name Required: Yes
ElementName: ProviderName

Report the name of the provider(s) of the qualification test that took place on the exam date.

Provider Email Required: Yes
ElementName: ProviderEmail

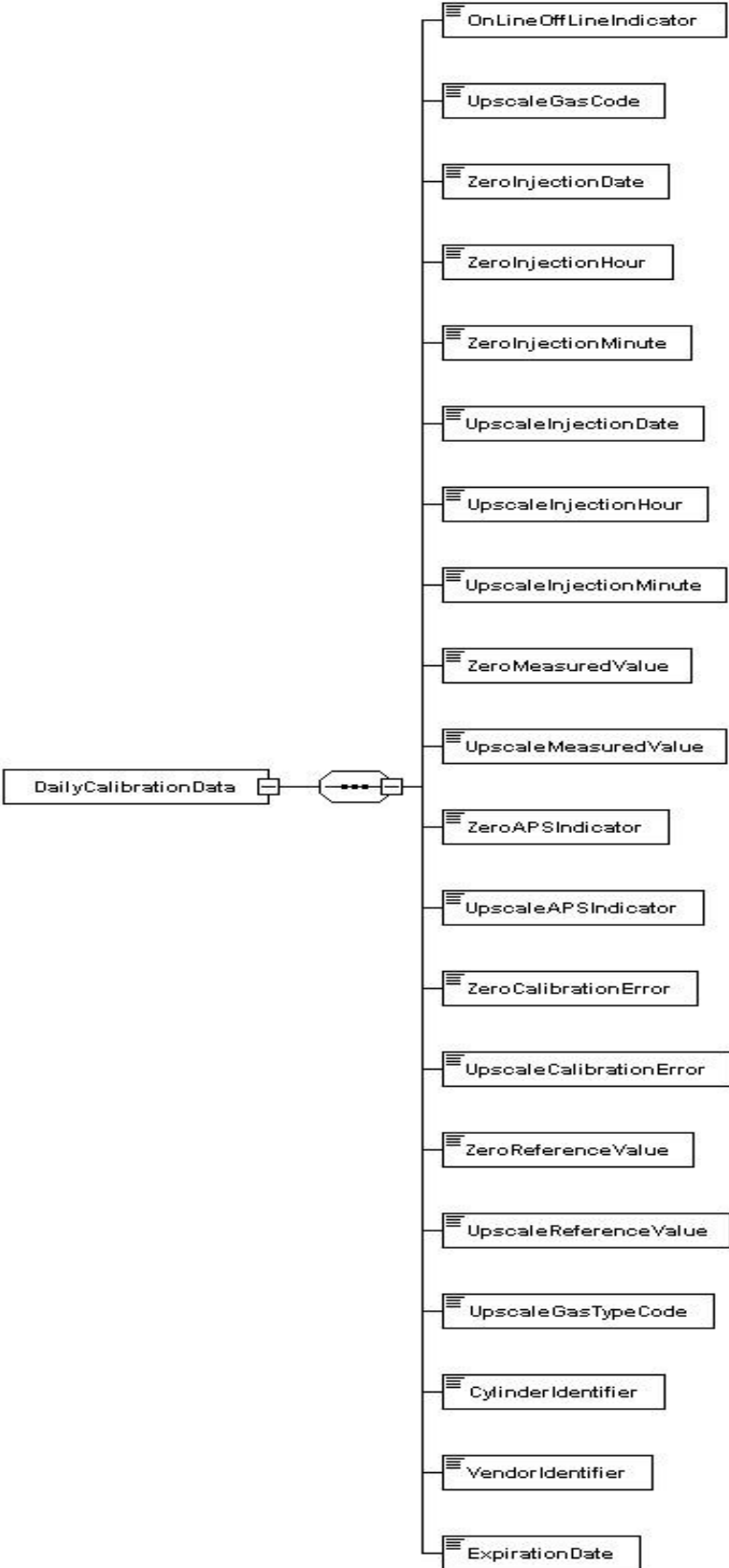
Report the email address of the provider(s) of the qualification test that took place on the exam date.

III. Emissions Data Reporting Instructions

One complex data element has been modified in the Emissions schema for reporting the new PGVP data elements related to the daily calibration test: the DAILY CALIBRATION DATA record.

A. DAILY CALIBRATION DATA

Figure 4
DAILY CALIBRATION DATA XML Elements



New DAILY CALIBRATION DATA Elements

Upscale Gas Type Code

Element Name: UpscaleGasTypeCode

Required: No

For SO₂, NO_X, CO₂, and O₂ components, report one of the gas type codes in Table 2 to indicate the type of gas in the cylinder used for the upscale injection.

Note: If you use a blend of EPA Protocol gases that is not present in this table, you may report a value of "APPVD", but you will need to contact EPA before submitting the data in order to get permission to use this code.

Leave this field blank if the Component Type Code is FLOW or H₂O.

Cylinder Identifier

Element Name: CylinderIdentifier

Required: No

For SO₂, NO_X, CO₂, and O₂ components, report the vendor-assigned identification or serial number found on the cylinder used for the upscale injection.

Leave this field blank if the Component Type Code is FLOW or H₂O or the Gas Type Code is AIR.

Vendor Identifier

Element Name: VendorIdentifier

Required: No

For an EPA Protocol gas, report the EPA-assigned PGVP Vendor ID of the production site that supplied the cylinder used for the upscale injection. An up-to-date list of PGVP Vendor IDs is located on the EPA website <http://www.epa.gov/airmarkets/emissions/pgvp-detail.html>, and can also be accessed via the ECMPS Support website.

Report "NONPGVP" if the cylinder was purchased from a non-participating vendor on or prior to May 27, 2011 (see Table 1 Note, above).

Leave this field blank if the Component Type Code is FLOW or H₂O or if the Gas Type Code is AIR, SRM, NTRM, GMIS, RGM, or PRM.

Expiration Date

Element Name: ExpirationDate

Required: No

For an EPA Protocol gas, SRM, NTRM, GMIS, RGM, or PRM, report the expiration date of the cylinder used for the upscale injection.

Leave this field blank if the Component Type Code is FLOW or H₂O or if the Gas Type Code is AIR.