

Schema Conformance Report

Flow Documentation Status and Contact Information

Flow Name:

State Air Stationary Source Compliance & Enforcement Activities

Schemas/Versions included in Conformance Report: Draft 1.0

AIR_Common_v1.0.xsd
AIR_Key_Elements_v1.0.xsd
AIR_Facility_v1.0.xsd
AIR_AirProgram_v1.0.xsd
AIR_PollutantAirProgram_v1.0.xsd
AIR_Action_v1.0.xsd
AIR_Header_v1.0.xsd
AIR_AirPermit_v1.0.xsd
AIR_AirPermitEvent_v1.0.xsd
AIR_CMS_v1.0.xsd
AIR_AFS_v1.0.xsd

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Contact Information:

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Flow Owner or Other Point of Contact for Flow Documentation Package:

Contact Information:

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Date Flow Documentation Package Submitted:

W3C Conformance and Validation

W3C's XSV Tool Output:

yes no Output pasted in the last section of the Conformance Report

yes no Zero errors identified by XSV Tool

Explanation of Warnings Listed in XSV Tool Output:

Warning	Explanation
None	

Schema and Instance Document Validation:

Names of XML parser(s) intended for use in conjunction with the flow and development tool(s) used to validate the schema and instance documents:

*Instance files could, in the future, potentially be validated using the Universal Interface (UI)

*The UI is anticipated to be modified to support the Import and Export of XML files based on the schemas. This effort is not currently funded.

The schemas were also validated using FRS and Altova's XMLSPY with no errors produced.

yes no All schema files validate using all parsers and tools listed above

yes no All sample instance documents validate using all parsers and tools listed above

Reason: UI not XML ready at this time

yes no All sample instance documents validate using the CDX validator service

Reason: No CDX Validator exists for this data stream

Design Rules and Conventions Conformance

Explanation of DRC Violations Identified:

DRC Rule ID	Schema Filenames	Explanation

Shared Schema Components Conformance

High Level of SSC Integration:

Element Name	Schema Path
SICCode	SC_FacilitySIC_v2.0.xsd
SICPrimaryIndicator	SC_FacilitySIC_v2.0.xsd
NAICSCode	SC_FacilityNAICS_v2.0.xsd
NAICSPPrimaryIndicator	SC_FacilityNAICS_v2.0.xsd

Medium Level of SSC Integration:

Element Name	Complex SSC Element or Data Type	Derived By
StateCode	SC_StateIdentity_V2.0.xsd	Restriction
CountyCode	SC_CountyIdentity_V2.0.xsd	Restriction
FacilitySiteIdentifier	SC_FacilitySiteIdentity_v2.0.xsd	Restriction
FacilitySiteName	SC_FacilitySiteIdentity_v2.0.xsd	Restriction
LocationAddressText	SC_LocationAddress_v2.0.xsd	Restriction
LocalityName	SC_LocationAddress_v2.0.xsd	Restriction
AddressPostalCode	SC_LocationAddress_v2.0.xsd	Restriction
AgencyCode	SC_AgencyIdentity_v2.0.xsd	Restriction
CASRegistryNumber	SC_ChemicalSubstanceIdentity_v2.0.xsd	Restriction
ViolationTypeCode	SC_SimpleContent_v2.0.xsd	Extension

Low Level of SSC Integration:

Element Name	Simple SSC Element or Data Type

Explanation for Not Integrating Available SSCs:

General observation

The XML schemas for this data grouping essentially needed to plant a foot in each of two territories. First, the intention was to create a skeleton on which future data reporting requirements could build, and second, it must match to as great a degree possible the data stream as it exists today. This data stream is necessarily confined in its flexibility by the constraints of a) the requirements as defined in the Code of Federal Regulations and even more by b) the current data repository and existing processes in place nationally.

Schema Name	Element or Type	SSC Element or Type	Explanation
AIR_AirProgramData_V1.0.xsd	CFRSubpart	ApplicableEnvironmentalCitation	In air Compliance & Enforcement, AFS contains only the CFR part/subpart values, not the actual text. There are multiple occurrences for a given air program (up to 12). This meant that the element also needs to be redefined as a recurring element inside a container element (as required by the NOB DRC). It was therefore more sensible to define the element from scratch.
AIR_Key_Elements_V1.0.xsd	AIRSPollutantCode	ChemicalSubstanceSynonym	The term "AIRS Pollutant Code" is how the SRS sees the AFS pollutant records and OECA determined that providing an element called "AIRSPollutantCode" would be the most recognizable term. Since the pollutant codes are stored in an AFS cross-reference table, they also may differ from other cross-referenced tables in other media. This made it prudent to use a different moniker.
AIR_Action_v1.0.xsd	AirActionIdentifier	Action Identifier: ComplianceMilestoneIdentifier EnforcementActionIdentifier InjunctiveReliefIdentifier ComplianceScheduleIdentifier InjunctiveReliefIdentifier ReportIdentifier PenaltyIdentifier	In AFS "Action number" is the identifier that targets a specific record. SSC has a number of identifier candidates, but breaks down to specific types of actions. It was necessary to develop the data structure in a manner that was similar in nature to that of the existing reporting structure in order for the air community to be able to convert their current MDR stream. This current

			structure uses a generic action record format for virtually any type of action. Therefore none of the identifiers found in the SSC made sense since they indicated an identifier very specific to a given action type.
AIR_Action_v1.0.xsd	AirRegionalAction TypeCode Also AirNationalAction TypeCode	Action Type: EnforcementActionTypeCode EnforcementActionResolution TypeCode ReportTypeCode ComplianceMilestoneTypeCode	The same logic as action identifiers applies to action type codes. It was necessary to develop the data structure in a manner that was similar in nature to that of the existing reporting structure in order for the air community to be able to convert their current MDR stream. This current structure uses a generic action record format for virtually any type of action. Therefore none of the action types found in the SSC made sense as they indicated a very specific type.
AIR_Action_v1.0.xsd	AirActionSchedule dDate	Scheduled Date: ComplianceMilestoneScheduledDate ReturnToComplianceScheduleDate	The same logic as action identifiers applies to Scheduled Dates. It was necessary to develop the data structure in a manner that was similar in nature to that of the existing reporting structure in order for the air community to be able to convert their current MDR stream. This current structure uses a generic action record format for virtually any type of action. Therefore none of the scheduled dates found in the SSC made sense as they targeted a specific action type.
AIR_Action_v1.0.xsd	AirActionAchieved Date	Date Achieved: ComplianceMilestoneCompletedDate ReturnToComplianceActualDate EnforcementActionDate	The same logic as action identifiers applies to Achieved Dates. It was necessary to develop the data structure in a manner that was similar in nature to that of the existing reporting structure in order for the air community to be able to convert their current MDR stream. This current structure uses a generic action record format for virtually any type of action. Therefore none of the achieved dates found in the SSC made sense as they targeted a specific action type.
AIR_Action_v1.0.xsd	AirAssessedCashPe	PenaltyAmountSought	None of the existing SSC

	nalty	PenaltyAmountRequired StipulatedPenaltyAmountRequired SupplementalEnvironmentalProjectValueAmount TotalPenaltyValueAmount	penalty amounts have the same definition as the one needed
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Candidates for New SSCs:

Schema Name	Element or Type Name	CRM data block

Recommendations (optional)

- 1.
- 2.
- 3.

W3C's XSV Tool Output

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:** http://www.dvcllc.com/Schemas/AIR_Common_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_Common_v1.0.xsd
Length: 17237 bytes
Last Modified: Fri, 03 Nov 2006 21:07:32 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_Key_Elements_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_Key_Elements_v1.0.xsd
Length: 7647 bytes
Last Modified: Wed, 08 Nov 2006 16:31:34 GMT)

Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)

- **docElt:** {http://www.w3.org/2001/XMLSchema} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_Facility_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_Facility_v1.0.xsd)
Length: 3513 bytes
Last Modified: Fri, 03 Nov 2006 16:46:19 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {http://www.w3.org/2001/XMLSchema} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_AirProgram_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_AirProgram_v1.0.xsd)
Length: 2540 bytes
Last Modified: Fri, 03 Nov 2006 14:25:22 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {http://www.w3.org/2001/XMLSchema} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_PollutantAirProgram_v1.0.xsd

(Real name:

http://www.dvcllc.com/Schemas/AIR_PollutantAirProgram_v1.0.xsd

Length: 3765 bytes

Last Modified: Fri, 03 Nov 2006 14:25:39 GMT

Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)

- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:** http://www.dvcllc.com/Schemas/AIR_Action_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_Action_v1.0.xsd
Length: 6059 bytes
Last Modified: Fri, 03 Nov 2006 21:14:58 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:** http://www.dvcllc.com/Schemas/AIR_Header_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_Header_v1.0.xsd
Length: 3014 bytes
Last Modified: Fri, 03 Nov 2006 14:25:36 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_AirPermit_v1.0.xsd
 (Real name: http://www.dvcllc.com/Schemas/AIR_AirPermit_v1.0.xsd
 Length: 2954 bytes
 Last Modified: Wed, 08 Nov 2006 16:31:30 GMT
 Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
 PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:**
http://www.dvcllc.com/Schemas/AIR_AirPermitEvent_v1.0.xsd
 (Real name: http://www.dvcllc.com/Schemas/AIR_AirPermitEvent_v1.0.xsd
 Length: 2389 bytes
 Last Modified: Wed, 08 Nov 2006 16:31:31 GMT
 Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
 PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:** http://www.dvcllc.com/Schemas/AIR_CMS_v1.0.xsd
 (Real name: http://www.dvcllc.com/Schemas/AIR_CMS_v1.0.xsd
 Length: 5195 bytes
 Last Modified: Wed, 08 Nov 2006 16:31:32 GMT
 Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
 PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Schema validating with XSV 2.10-1 of 2005/04/22 13:10:49

- **Target:** http://www.dvcllc.com/Schemas/AIR_AFS_v1.0.xsd
(Real name: http://www.dvcllc.com/Schemas/AIR_AFS_v1.0.xsd
Length: 3785 bytes
Last Modified: Wed, 08 Nov 2006 16:31:30 GMT
Server: Apache/1.3.20 Sun Cobalt (Unix) mod_ssl/2.8.4 OpenSSL/0.9.6b
PHP/4.0.6 mod_auth_pam_external/0.1 FrontPage/4.0.4.3 mod_perl/1.25)
- **docElt:** {<http://www.w3.org/2001/XMLSchema>} schema
- Validation was strict, starting with type [Anonymous]
- The schema(s) used for schema-validation had no errors
- No schema-validity problems were found in the target

Additional Validation Tool Outputs

Validation verification using XMLSPY as of November 9, 2006:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_Key_Elements_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_Action_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_AFS_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_AirPermit_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_AirPermitEvent_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_AirProgram_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_CMS_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_Common_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_Facility_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Testing\AIR_Header_v1.0.xsd is valid.

Additional Validation verification using XMLSPY as of November 16, 2006:

The following were retested after one slight adjustment to key elements for Permit Events:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\ AIR_Key_Elements_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AirPermitEvent_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\ AIR_AFS_v1.0.xsd is valid.

The following were tested after one slight adjustment to the full level content global element reference:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_CMS_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AFS_v1.0.xsd is valid.

Additional Validation verification using XMLSPY as of November 17, 2006:

The following were retested after inclusion of SIC and NAICS Primary Flag elements:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_Common_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_Facility_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AFS_v1.0.xsd is valid.

The following were retested after addition of a global pollutant element to facilitate multiple pollutants per submission:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_PollutantAirProgram_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AFS_v1.0.xsd is valid.

The following were retested after addition of a permit element to facilitate multiple permits per submission:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AirPermit_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AFS_v1.0.xsd is valid.

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AirPermit_v1.0.xsd is valid.

The following were retested after addition of a permit element to facilitate multiple permit events per submission:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_AirPermitEvent_v1.0.xsd is valid.

The following were retested after addition of a permit element to facilitate multiple CMS records per submission:

File C:\Documents and Settings\All Users\Documents\UI4\Products of our work\Draft AIR Schemas\Versions Run Against Validators\AIR_CMS_v1.0.xsd is valid.

Additional Validation verification using FRS Schema Design Validator Tool

See the following addendum files:

FRS Schema Design Tool Results Air_Header.pdf
FRS Schema Design Tool Results Air_Common.pdf
FRS Schema Design Tool Results Air_KeyElements.pdf
FRS Schema Design Tool Results Air_Facility.pdf
FRS Schema Design Tool Results Air_AirProgram.pdf
FRS Schema Design Tool Results Air_PollutantAirProgram.pdf
FRS Schema Design Tool Results Air_Action.pdf
FRS Schema Design Tool Results Air_CMS.pdf
FRS Schema Design Tool Results Air_AirPermit.pdf
FRS Schema Design Tool Results Air_AirPermitEvent.pdf
FRS Schema Design Tool Results Air_AFS.pdf