

# Greenhouse Gas Business Rules for Verify Greenhouse Gas and Fuel Economy Testing

Draft

# Greenhouse Gas Business Rules for Verify Greenhouse Gas and Fuel Economy Testing

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Compliance and Innovative Strategies Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Vehicle Information	LD-CTD-VI-BR001	Manufacturer Code (VI-1) must exist in the system.	(VI-1)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR002	If Process Code (VI-0.5) is equal to 'C' (Correction) and Original Test Vehicle Model Year (VI-7) is greater than or equal to 2011, then a record must already exist in the system with the same Vehicle ID (VI-2), Vehicle Configuration Number (VI-3), and Manufacturer Code (VI-1).	(VI-2) (VI-3) (VI-1)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR003	The Original Test Vehicle Model Year (VI-7) must match the model year embedded in the Original Test Group Name (VI-5).	(VI-7) (VI-5)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR004	The Original Test Vehicle Model Year (VI-7) must match the model year embedded in the Original Evaporative/Refueling Family Name (VI-6).	(VI-7) (VI-6)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR005	The Manufacturer Code (VI-1) must match the manufacturer code embedded in the Original Test Group Name (VI-5).	(VI-1) (VI-5)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR006	The Manufacturer Code (VI-1) must match the manufacturer code embedded in the Original Evaporative/Refueling Family Name (VI-6).	(VI-1) (VI-6)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR007	The displacement embedded in the Original Test Group Name (VI-5) must be a valid number.	(VI-5)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR008	The industry code embedded in the Test Group (VI-5) must reference a valid industry.	(VI-5)	Not Under Development	Inactive
Certification Test Data	Vehicle Information	LD-CTD-VI-BR009	The canister working capacity embedded in the Original Evaporative/Refueling Family Name (VI-6) must be a valid number.	(VI-6)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR010	The Evaporative Family type embedded in the Evaporative/Refueling Family (VI-6) must be valid.	(VI-6)	Not Under Development	Inactive
Certification Test Data	Vehicle Information	LD-CTD-VI-BR011	Fuel 1 (VI-11) cannot be equal to 'NA' (Not Applicable).	(VI-11)	Deleted	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR012	If Vehicle Fuel Category (VI-10) is equal to 'FF' (Flex-Fuel), 'FH' (Flex-Fuel Hybrid), 'DF' (Duel Fuel) or 'BF' (Bi-Fuel), then Fuel 2 (VI-12) is required, otherwise Fuel 2 (VI-12) must equal to 'NA' (Not Applicable).	(VI-12)	Deleted	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR013	If Air Aspiration Method (VI-23) is equal to 'OT' (Other) then Air Aspiration Method If Other (VI-24) is required, otherwise it is optional.	(VI-24)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR014	If Air Aspiration Method (VI-23) is equal to 'TC' (Turbocharged), 'SC' (Supercharged), 'TS' (Turbocharged and Supercharged) or 'OT' (Other), then Number of Air Aspiration Devices (VI-25) is required, otherwise it must be equal to 0, if present.	(VI-25)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR015	If Air Aspiration Method (VI-23) is not equal to 'NA' (Naturally Aspirated), then Number of Air Aspiration Devices (VI-25) is required and cannot be equal to 0.	(VI-25)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR016	If Air Aspiration Method (VI-23) is equal to 'TC' (Turbocharged), 'SC' (Supercharged), 'TS' (Turbocharged and Supercharged) or 'OT' (Other), then Air Aspiration Device Configuration (VI-26) is required, otherwise it is not allowed.	(VI-26)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR017	If Air Aspiration Device Configuration (VI-26) is equal to 'N' (Single), then Number of Air Aspiration Devices (VI-25) must be 1.	(VI-25)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR018	If Air Aspiration Device Configuration (VI-26) is not equal to 'N' (Single), then Number of Aspiration Devices (VI-25) must be greater than 1, if present.	(VI-25)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR019	Equivalent Test Weight (VI-30) must be greater than Curb Weight (VI-29).	(VI-30) (VI-29)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR020	Gross Vehicle Weight Rating (VI-33) must be greater than Curb Weight (VI-29).	(VI-33) (VI-29)	Not Under Development	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Vehicle Information	LD-CTD-VI-BR021	If Transmission Type (VI-36) is equal to 'OT' (Other), then Transmission Type Other Description (VI-37) is required.	(VI-36) (VI-37)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR022	If Transmission Type (VI-36) is equal to 'M' (Manual), then Transmission Lockup (VI-38) must be equal to 'N' (No).	(VI-38)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR023	If Creeper Gear (VI-39) is equal to 'Y' (Yes), then Transmission Type (VI-36) must be equal to 'M' (Manual).	(VI-36)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR024	If Transmission Type (VI-36) is equal to 'CVT' (Continuously Variable), then Number of Transmission Gears (VI-40) must be equal to 1.	(VI-40)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR025	If Air Aspiration Method (VI-23) is not equal to 'NA' (Naturally Aspirated) then Charge Air Cooler Type (VI-27) is required.	(VI-27)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR026	If the Process Code (VI-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (VI-1) of the dataset for which the report requested.	(VI-1)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR027	If the Process Code (VI-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (VI-1) of the submitted dataset.	(VI-1)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR028	If the Process Code (VI-0.5) is equal to 'N' (New) then the Vehicle Configuration Number (VI-3) is not allowed.	(VI-3)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR029	If the Process Code (VI-0.5) is equal to 'C' (Correction) then the Vehicle Configuration Number (VI-3) is required.	(VI-3)	Not Under Development	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR030	If the Process Code (VI-0.5) is equal to 'C' (Correction) then this vehicle cannot have any active test for which there are locked and active Certification Summary Information Reports (CSIs).	(VI-0.5)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR031	If Process Code (VI-0.5) is equal to 'R' (Report) then a record must already exist in the system with the same Vehicle ID (VI-2), Vehicle Configuration Number (VI-3), and Manufacturer Code (VI-1).	(VI-2) (VI-3) (VI-1) (VI-0.5)	Updated	Active
Certification Test Data	Vehicle Information	LD-CTD-VI-BR032	If Drive Source (VI-10.5) is equal to 'C' (Combustion Engine), then Fuel(s) (VI-11.1) can not equal 'EL' (Electricity).	(VI-11.1)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR033	If Drive Source (VI-10.5) is equal to 'E' (Electric Motor), then Fuel(s) (VI-11.1) must equal 'EL' (Electricity), 'H' (Hydrogen), or 'M' (Methanol).	(VI-11.1)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR034	BE (Battery Electric) and 'NA' (Not Applicable) are not allowable values for Fuel(s) (VI-11.1).	(VI-11.1)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR035a	If more than one fuel is selected for Fuel(s) (VI-11.1) and if Drive Source (VI-10.5) equals 'C' (Combustion Engine), then Multiple Fuel Storage (VI-11.2) is required; otherwise, it is not allowed.	(VI-11.2)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR035b	If more than one fuel is selected for Fuel(s) (VI-11.1) and if Drive Source (VI-10.5) equals 'C' (Combustion Engine), then Multiple Fuel Storage (VI-11.2) is required; otherwise, it is not allowed.	(VI-11.2)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR036	If Drive Source (VI-10.5) equals 'C' (Combustion Engine) and more than one Fuel(s) (VI-11.1) selected is combustible (i.e., 'G' (Gasoline), 'D' (Diesel), 'M' (Methanol), 'E' (Ethanol), 'CNG' (Compressed Natural Gas), 'LNG' (Liquified Natural Gas), or 'LPG' (Liquified Petroleum Gas)), then Multiple Fuel Combustion - Separate Or Together (VI-11.3) is required, otherwise it is optional.	(VI-11.3)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR037	If Drive Source (VI-10.5) is equal to 'E' (Electric Motor), then Fuel Cell Indicator (VI-11.4) is required, otherwise it is optional.	(VI-11.4)	Added	Not in the System

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Certification Test Data	Vehicle Information	LD-CTD-VI-BR038	If Drive Source (VI-10.5) is equal to 'E' (Electric Motor), then Rechargeable Energy Storage System Indicator (VI-11.5) is required, otherwise it is optional.	(VI-11.5)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR039	If Drive Source (VI-10.5) equals 'E' (Electric Motor) or if Hybrid Indicator (VI-10.6) equals 'Y' (Yes) or if Fuel Cell Indicator (VI-11.4) equals 'Y' (Yes), then Rechargeable Energy Storage System (VI-11.6) is required, otherwise it is optional.	(VI-11.6)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR040	If Rechargeable Energy Storage System (VI-11.6) equals 'OT' (Other), then the Rechargeable Energy Storage System, if 'Other' (VI-11.7) is required, otherwise it is optional.	(VI-11.7)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR041	If Drive Source (VI-10.5) is equal to 'E' (Electric Motor), then Off-board Charge Capable Indicator (VI-11.8) is required, otherwise it is optional.	(VI-11.8)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-BR042	If Test Procedure Dynamometer Coefficients Category (VI-40.5) equals 'C-H-E' (City/Highway/Evap) then EPA-Calculated Total Road Load Horsepower (VI-43.5) is required; otherwise, it is not allowed.	(VI-43.5)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB002	The selected value for Multiple Fuel Storage (VI-11.2) is not a valid value.	(VI-11.2)	Not Under Development	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB003	The selected value for Multiple Fuel Combustion(VI-11.3) is not a valid value.	(VI-11.3)	Not Under Development	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB004	The selected value for Rechargeable Energy Storage System (VI-11.6) is not a valid value.	(VI-11.6)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB005	The selected value for Equivalent Test Weight Value (VI-30) is not a valid value.	(VI-30)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB006	The selected value for Drive Source Identifier (VI-10.5) is not a valid value.	(VI-10.5)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IB007	The selected value for Light Duty Transmission Type Identifier (VI-36) is not a valid value.	(VI-36)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IBR001	The selected value for Fuel(s) (VI-11.1) is not a valid value.	(VI-11.1)	Added	Not in the System
Certification Test Data	Vehicle Information	LD-CTD-VI-IBR008	Each Fuel(s) (VI-11.1) may only be selected once per Drive Source (VI-10.5).	(VI-11.1)	Added	Not in the System
Certification Test Data	Fuel Properties	LD-CTD-FP-BR001	Manufacturer Code (FP-1) must exist in the system.	(FP-1)	Not Under Development	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR002a	If Process Code (FP-0.5) is equal to 'R' (Report) or 'C' (Correction) then a record must already exist in the system with the same Fuel Batch ID (FP-2), Fuel Batch Calibration Number (FP-3), and Manufacturer Code (FP-1).	(FP-2) (FP-3) (FP-1)	Not Under Development	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR002b	If Process Code (FP-0.5) is equal to 'R' (Report) or 'C' (Correction) then a record must already exist in the system with the same Fuel Batch ID (FP-2), Fuel Batch Calibration Number (FP-3), and Manufacturer Code (FP-1).	(FP-2) (FP-3) (FP-1)	Not Under Development	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR003	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Test Fuel Type equals '10' (Natural Gas) or '41' (Compressed Natural Gas)) then Carbon weight fraction NMHC (FP-8) is required to be between 0.0 and 0.900.	(FP-8)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR004	If Test Fuel Type (FP-4) is equal to '10' (Natural Gas) or '41' (Compressed Natural Gas) then Carbon weight fraction HC (FP-9) is required to be between 0.680 and 0.900.	(FP-9)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR005	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Natural Gas) (Methanol or Methanol Blend) then Fuel Methanol Volume Fraction (FP-11) is required to be between 0.000 and 1.000.	(FP-11)	Deleted	Inactive

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Certification Test Data	Fuel Properties	LD-CTD-FP-BR006	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Test Fuel Type equals '10' (Natural Gas) or '41' (Compressed Natural Gas)) then Fuel Density (FP-12) is required to be between 15.0 and 25.0 gm/cu. ft.	(FP-12)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR007	If Test Fuel Type (FP-4) has a Fuel Category equal to 'G' (Gasoline) (Test Fuel Type equals 1, 6, 7, 22, 23, 24, 25, 26, 27, or 61) then Fuel Specific Gravity (FP-13) is required to be between 0.700 and 0.790.	(FP-13)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR008	If Test Fuel Type (FP-4) has a Fuel Category equal to 'D' (Diesel) (Test Fuel Type equals 9 or 19) then Fuel Specific Gravity (FP-13) is required to be between 0.830 and 0.870, however, it is not required that it be submitted.	(FP-13)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR009	If Test Fuel Type (FP-4) is equal to '23' (California Phase II Gasoline) then Fuel Specific Gravity (FP-13) is required to be between 0.723 and 0.790.	(FP-13)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR010	If Test Fuel Type (FP-4) has a Fuel Category equal to 'G' (Gasoline) (Test Fuel Type equals 1, 6, 7, 22, 23, 24, 25, 26, 27, or 61) then Fuel Net Heating Value (FP-14) is required to be between 18200 and 19000 Btu/lb.	(FP-14)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR011	If Test Fuel Type (FP-4) has a Fuel Category equal to 'D' (Diesel) then Fuel Net Heating Value (FP-14) is required to be between 18300 and 19000 Btu/lb.	(FP-14)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR012	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Test Fuel Type equals '10' (Natural Gas) or '41' (Compressed Natural Gas)) then Fuel Net Heating Value (FP-14) is required to be between 19000 and 25000 Btu/lb.	(FP-14)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR013	If Test Fuel Type (FP-4) is equal to '23' (California Phase II) then Fuel Net Heating Value (FP-14) is required to be between 17500 and 19000 Btu/lb.	(FP-14)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR014	If Test Fuel Type (FP-4) has a Fuel Category equal to 'G' (Gasoline) (Test Fuel Type equals 1, 6, 7, 22, 23, 24, 25, 26, 27, or 61) then Fuel Blend Carbon Weight Fraction (FP-15) is required to be between 0.835 and 0.886.	(FP-15)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR015	If Test Fuel Type (FP-4) has a Fuel Category equal to 'D' (Diesel) (Test Fuel Type equals 9 or 19) then Fuel Blend Carbon Weight Fraction (FP-15) is required to be between 0.850 and 0.875.	(FP-15)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR016	If Test Fuel Type (FP-4) is equal to '23' (California Phase II Gas) then Fuel Blend Carbon Weight Fraction (FP-15) is required to be between 0.820 and 0.845	(FP-15)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR017	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Test Fuel Type equals '10' (Natural Gas) or '41' (Compressed Natural Gas)) then Fuel Blend Carbon Weight Fraction (FP-15) is required to be between 0.650 and 0.770.	(FP-15)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR018	If Test Fuel Type (FP-4) has a Fuel Category equal to 'CNG' (Test Fuel Type equals '10' (Natural Gas) or '41' (Compressed Natural Gas)) then Weight fraction CO2 (FP-16) is required to be between 0.000 and 0.300.	(FP-16)	Deleted	Inactive
Certification Test Data	Fuel Properties	LD-CTD-FP-BR019	If the Process Code (FP-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code of the dataset for which the report was requested.	(FP-1)	Not Under Development	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR020	If the Process Code (FP-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code of the submitted dataset.	(FP-1)	Not Under Development	Active

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Certification Test Data	Fuel Properties	LD-CTD-FP-BR021	If the Process Code (FP-0.5) is equal to 'C' (Correction) then there cannot be any active tests, which reference these fuel properties, that are included in any locked Certificate Summary Information Reports (CSIs).	(FP-0.5)	Updated	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR022	If the Process Code (FP-0.5) is equal to 'N' (New) then a record cannot already exist in the system with the same Fuel Batch ID (FP-2), Fuel Batch Calibration Number (FP-3), and Manufacturer Code (FP-1).	(FP-2) (FP-3) (FP-1)	Not Under Development	Active
Certification Test Data	Fuel Properties	LD-CTD-FP-BR023	If Process Code (FP-0.5) is equal to 'C' (Correction) then there cannot be an active Test Information Dataset with the same Fuel Batch ID (FP-2), Fuel Batch Calibration Number (FP-3), and Manufacturer Code (FP-1).	(FP-2) (FP-3) (FP-1) (FP-0.5)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR001	Manufacturer Code (TI-3) must exist in the system.	(TI-3)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR002a	If Process Code (TI-0.5) is equal to 'C' (Correction) and the Original Model Year (VI-7) of the associated vehicle is greater than or equal to 2011, then Test Number (TI-1) is required and a corresponding record must already exist in the system.	(TI-1)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR002b	If Process Code (TI-0.5) is equal to 'C' (Correction) and the Original Model Year (VI-7) of the associated vehicle is greater than or equal to 2011, then Test Number (TI-1) is required and a corresponding record must already exist in the system.	(TI-1)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR003	If Process Code (TI-9) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code (TI-3), Vehicle ID (TI-4), and Vehicle Configuration (TI-5) must match to an active vehicle currently in the system.	(TI-3) (TI-4) (TI-5)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR004	If the submitter's Manufacturer Code (TI-3) is not equal to 'LOD' then LOD Test Number (TI-2) is not allowed.	(TI-2)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR005	Test Date (TI-6) must be earlier than or equal to the Submit Date (as determined by the system).	(TI-6)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR006	If the submitter's Manufacturer Code (TI-3) is equal to 'LOD' then Manufacturer Test Lab Site Code (TI-7) is not allowed, otherwise it is required.	(TI-7)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR007	Test lab site code (TI-7) must exist in the Manufacturer's Profile.	(TI-7)	Deleted	Active
Certification Test Data	Test Information	LD-CTD-TI-BR008a	If Test Procedures (TI-8) is an evaporative test (Test Procedure equal to 23, 24, 27, 32, 34, 37, 38, 43, 44, 47) then the Exhaust/Evaporative Test Number Link (TI-13) is required and must reference an FTP Exhaust test number that already exists in Verify, otherwise it is not allowed.	(TI-13)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR008b	If Test Procedures (TI-8) is an evaporative test (Test Procedure equal to 23, 24, 27, 32, 34, 37, 38, 43, 44, 47) then the Exhaust/Evaporative Test Number Link (TI-13) is required and must reference an FTP Exhaust test number that already exists in Verify, otherwise it is not allowed.	(TI-13)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR009	Fuel Batch Manufacturer Code (TI-16), Fuel Batch Id (TI-17) and Fuel Calibration Number (TI-18), if present, must reference a Fuel Properties data set that exists in the system.	(TI-16) (TI-17) (TI-18)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR010	If the Test Fuel Type (TI-9) is one of the 'Diesel' fuel types (9, 19) or 'Hydrogen' (50), or Test Procedure (TI-8) is for an evaporative test (23, 27, 34, 38, 43, 47), 'Electric Vehicle Urban Range Test' (62), or 'Electric Vehicle Highway Range Test' (63) then Fuel Batch Manufacturer Code (TI-16), Fuel Batch Id (TI-17), and Fuel Calibration Number (TI-18) are not allowed.	(TI-16) (TI-17) (TI-18)	Deleted	Active
Certification Test Data	Test Information	LD-CTD-TI-BR011	If the submitter's Manufacturer Code (TI-3) is equal to 'LOD' then Retest Indicator (TI-22) is required.	(TI-22)	Deleted	Active

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Certification Test Data	Test Information	LD-CTD-TI-BR012	If the submitter's Manufacturer Code (TI-3) is equal to 'LOD' and Retest Indicator (TI-22) equals 'Y', then Retest Reason (TI-23) is required.	(TI-23)	Deleted	Active
Certification Test Data	Test Information	LD-CTD-TI-BR013	If Fuel Category (VI-10) equals 'HV' (Hybrid) or 'FC' (Fuel Cell-Electric), or 'FH' (Flex-Fuel Hybrid) then State Of Charge Delta Indicator (TI-24) is required.	(TI-24)	Deleted	Active
Certification Test Data	Test Information	LD-CTD-TI-BR016a	The Test Result/Emission Name (TI-19) cannot contain 'CO-comp' (CO SFTP Composite) or 'HC-NM+NOx-comp' (NMHC+NOX SFTP Composite).	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR016a	The Test Result/Emission Name (TI-19) cannot contain 'CO-comp' (CO SFTP Composite) or 'HC-NM+NOx-comp' (NMHC+NOX SFTP Composite).	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR017	If the Process Code (TI-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TI-3) of the dataset for which the report was requested.	(TI-3)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR018	If the Process Code (TI-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TI-3) of the submitted dataset.	(TI-3)	Deleted	Inactive
Certification Test Data	Test Information	LD-CTD-TI-BR019	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'Y' (Yes) and the Test Category (TI-43) is equal to 'FTP' (Test Procedures (TI-8) = 2, 11, 21, 25, 31, 35, 41, 45) then one of the Test Results submitted must have a Test Result/Emission Name (TI-19) equal to 'MFR-FE'.	(TI-19)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR020	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'Y' (Yes) and the Test Category (TI-43) is equal to 'HWY' (Test Procedure) ((TI-8) = 3) then one of the Test Results submitted must have a Test Result/Emission Name (TI-19) equal to 'MFR FE'.	(TI-19)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR021a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is equal to '9' (1994 Cert Diesel 300 ppm Sulfur) or '19' (2007 Cert Diesel 7-15 ppm Sulfur), and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95) then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide).	(TI-19)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR021b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is equal to '9' (1994 Cert Diesel 300 ppm Sulfur) or '19' (2007 Cert Diesel 7-15 ppm Sulfur), and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95) then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide).	(TI-19)	Updated	Active



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR022a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is one of the ethanol fuel types (36, 37, 38, 43, 44, 45, 71), and the Test Procedure (TI-8) requires el Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide), 'METHANOL', 'HCHO' (Formaldehyde), 'ETHANOL', and "H3C2HO" (Acetaldehyde); and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR022b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is one of the ethanol fuel types (36, 37, 38, 43, 44, 45, 71), and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide), 'METHANOL', 'HCHO' (Formaldehyde), 'ETHANOL', and "H3C2HO" (Acetaldehyde); and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR022c	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is one of the ethanol fuel types (36, 37, 38, 43, 44, 45, 71), and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide), 'METHANOL', 'HCHO' (Formaldehyde), 'ETHANOL', and "H3C2HO" (Acetaldehyde); and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR022d	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is one of the ethanol fuel types (36, 37, 38, 43, 44, 45, 71), and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL' (Total Hydrocarbon), 'CO' (Carbon Monoxide), and 'CO2' (Carbon Dioxide), 'METHANOL', 'HCHO' (Formaldehyde), 'ETHANOL', and "H3C2HO" (Acetaldehyde); and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR023a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '42' (LPG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR023b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '42' (LPG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR023c	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '42' (LPG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR023d	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '42' (LPG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15).	(TI-19) (FP-13) (FP-15)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR024a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '1' (Indolene 30) , '6' (EPA Unleaded), '7' (Industrial Unleaded 100 Octane), '8' (Number 1 Fuel Oil), '22' (Special Unleaded 91 RON), '24' (Cold CO Regular Cert), '25' (Cold CO Premium Cert), '26' (Cold CO Regular Tier 2), '27' (Cold CO Premium Tier 2), or '61' (Tier 2 Unleaded) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR024b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '1' (Indolene 30) , '6' (EPA Unleaded), '7' (Industrial Unleaded 100 Octane), '8' (Number 1 Fuel Oil), '22' (Special Unleaded 91 RON), '24' (Cold CO Regular Cert), '25' (Cold CO Premium Cert), '26' (Cold CO Regular Tier 2), '27' (Cold CO Premium Tier 2), or '61' (Tier 2 Unleaded) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR024c	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '1' (Indolene 30) , '6' (EPA Unleaded), '7' (Industrial Unleaded 100 Octane), '8' (Number 1 Fuel Oil), '22' (Special Unleaded 91 RON), '24' (Cold CO Regular Cert), '25' (Cold CO Premium Cert), '26' (Cold CO Regular Tier 2), '27' (Cold CO Premium Tier 2), or '61' (Tier 2 Unleaded) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR024d	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '1' (Indolene 30) , '6' (EPA Unleaded), '7' (Industrial Unleaded 100 Octane), '8' (Number 1 Fuel Oil), '22' (Special Unleaded 91 RON), '24' (Cold CO Regular Cert), '25' (Cold CO Premium Cert), '26' (Cold CO Regular Tier 2), '27' (Cold CO Premium Tier 2), or '61' (Tier 2 Unleaded) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR025a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '10' (Natural Gas) or '41' (CNG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-NM', 'METHANE', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Carbon Weight Fraction NMHC (FP-8), Carbon Weight Fraction HC (FP-9), Fuel Blend Carbon Weight Fraction (FP-15), Fuel Density (FP-12) and Weight Fraction CO2 (FP-16).	(TI-19) (FP-8) (FP-9) (FP-15) (FP-12) (FP-16)	Updated	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR025b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '10' (Natural Gas) or '41' (CNG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-NM', 'METHANE', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Carbon Weight Fraction NMHC (FP-8), Carbon Weight Fraction HC (FP-9), Fuel Blend Carbon Weight Fraction (FP-15), Fuel Density (FP-12) and Weight Fraction CO2 (FP-16).	(TI-19) (FP-8) (FP-9) (FP-15) (FP-12) (FP-16)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR025c	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '10' (Natural Gas) or '41' (CNG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-NM', 'METHANE', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Carbon Weight Fraction NMHC (FP-8), Carbon Weight Fraction HC (FP-9), Fuel Blend Carbon Weight Fraction (FP-15), Fuel Density (FP-12) and Weight Fraction CO2 (FP-16).	(TI-19) (FP-8) (FP-9) (FP-15) (FP-12) (FP-16)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR025d	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '10' (Natural Gas) or '41' (CNG) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-NM', 'METHANE', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Carbon Weight Fraction NMHC (FP-8), Carbon Weight Fraction HC (FP-9), Fuel Blend Carbon Weight Fraction (FP-15), Fuel Density (FP-12) and Weight Fraction CO2 (FP-16).	(TI-19) (FP-8) (FP-9) (FP-15) (FP-12) (FP-16)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR026a	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '23' (CARB Phase II Gasoline) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR026b	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '23' (CARB Phase II Gasoline) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR026c	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '23' (CARB Phase II Gasoline) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR026d	If Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to 'N' (No), Test Fuel Type (TI-9) is '23' (CARB Phase II Gasoline) and the Test Procedure (TI-8) requires Fuel Economy to be calculated (2, 3, 11, 21, 25, 31, 35, 41, 45, 81, 83, 84, 85, 86, 90, 95), then Test Results must be submitted with the following Test Result/Emission Names (TI-19): 'HC-TOTAL', 'CO', and 'CO2'; and the following fields must exist in the Fuel Properties submission associated with the Test Information: Fuel Specific Gravity (FP-13) and Fuel Blend Carbon Weight Fraction (FP-15), and Fuel Net Heating Value (FP-14).	(TI-19) (FP-13) (FP-15) (FP-14)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR027	If the Process Code (TI-0.5) is 'C' (Correction) then there cannot be any locked and active Certificate Summary Information Reports (CSIs) which reference this test.	(TI-0.5)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR028	If Test Fuel Type (TI-9) is equal to '9' (1994 Cert Diesel 300 ppm Sulfur) or '19' (2007 Cert Diesel 7-15 ppm Sulfur) the Diesel Adjustment Factor (TI-18.5) is required, otherwise it is optional.	(TI-18.5)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR029	If the Process Code (TI-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TI-3) of the submitted dataset unless the submitter is LOD.	(TI-3)	Updated	Active
Certification Test Data	Test Information	LD-CTD-TI-BR030	If Process Code (TI-0.5) is equal to 'R' (Report) then Test Number (TI-1) is required and a corresponding record must already exist in the system.	(TI-1)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR031	If Process Code (TI-0.5) is equal to 'N' (New) then Test Number (TI-1) is not allowed.	(TI-1)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR032a	If the Fuel Batch Manufacturer Code (TI-16) is not 'LOD' then it must match the submitted Manufacturer Code (TI-3).	(TI-3)	Not Under Development	Inactive
Certification Test Data	Test Information	LD-CTD-TI-BR032b	Test Procedure Codes (TI-8) of '80', '81', '82', or '83' are not allowed.	(TI-8)	Deleted	Active
Certification Test Data	Test Information	LD-CTD-TI-BR033	If the Test Procedure (TI-8) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (TI-19) of 'HC-TOTAL' is not allowed.	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR034	The Test Result/Emission Name (TI-19) of 'HC' is only allowed for ORVR (Test Procedure (TI-8) equal to 24 or 44) or Running Loss (Test Procedure (TI-8) equal to 32 or 37) tests.	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR035a	Each Test Result/Emission Name (TI-19) must be a unique value."	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR035b	Each Test Result/Emission Name (TI-19) must be a unique value."	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR036	If the submitter's Manufacturer Code (TI-3) is equal to 'LOD' and Process Code (TI-0.5) is equal to 'C' (Correction) then Test Number (TI-1) is required and a corresponding record must already exist in the system.	(TI-1)	Updated	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR037	If Test Procedure Code (TI-8) is equal to 90 (US06) or 95 (SC03) then the submission must either contain a HC-NM+NOX emission result (TI-19) or a HC-NM emission result (TI-19) and a NOX emission result (TI-19).	(TI-19)	Not Under Development	Active
Certification Test Data	Test Information	LD-CTD-TI-BR038	If Original Test Vehicle Model Year (VI-7) is equal to or greater than 2012 and if any values selected for Test Result/Emission Name (TI-19) are equal to 'MFR FE' (Manufacturer Fuel Economy) or 'FE BAG 1' (Bag 1 Fuel Economy) or 'FE BAG 2' (Bag 2 Fuel Economy) or 'FE BAG 3' (Bag 3 Fuel Economy) or 'FE BAG 4' (Bag 4 Fuel Economy), then Fuel Economy Value Unit (TI-20.5) is required, otherwise it is optional.	(TI-20.5)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR039	If Test Fuel Type (TI-9) is equal to 'Hydrogen' (Test Fuel Type = '50') and Fuel Cell Indicator (VI-11.4) is equal to 'Y' (Yes), then Fuel Economy Value Unit (TI-20.5) must be equal to 'MPK'.	(TI-20.5)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR040	If Test Fuel Type (TI-9) is equal to 'Electricity' (Test Fuel Type = '62'), then Fuel Economy Value Unit (TI-20.5) must be equal to 'KW-HR/100MI'.	(TI-20.5)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR041	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012' and if Retest Indicator (TI-22) is equal to 'Y' (Yes), then Manufacturer Verify Test Number That Was Retested (TI-22.1) is required for Tests submitted by Manufacturers, otherwise it is not allowed. It is optional for tests submitted by LOD.	(TI-22.1)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR042	Test Date (TI-6) of the test being submitted must be equal to or later than the Test Date (TI-6) of the Manufacturer Verify Test Number That Was Retested (TI-22.1).	(TI-22.1)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR043	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012', then Test Procedure (TI-8) can not be equal to '62' (Electric Vehicle Urban Range Test) or '63' (Electric Vehicle Highway Range Test).	(TI-8)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR044	If Retest Indicator (TI-22) is equal to 'Y' (Yes), then Retest Reason (TI-23) is required, otherwise it is not allowed.	(TI-23)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR045	For tests submitted by manufacturers, Retest Reason (TI-23) can only be equal to '1' (Failed(F)), '2' (Void (V)), or '3' (FE(FE)).	(TI-23)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR046	If Hybrid Indicator (VI-10.6) or Fuel Cell Indicator (VI-11.4) is equal to 'Y' (Yes), and, if Test Procedure (TI-8) is equal to 3 (HWFE), 90 (US06), 95 (SC03) or following FTP Test Procedures (2, 21, 25, 31, 35, 41, or 45), then State of Charge Delta Indicator (TI-24) is required, otherwise it is optional. (Note: We would use the Test Category 'FTP' for the FTP test procedures, but some of the test procedures do not apply.)	(TI-24)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR047a	If Test Category (TI-43) equals 'Charge Depleting' as determined by the Test Procedure (TI-8), then Test Result/Emission Names (TI-19) with Integrated Amp-hours, System Start State of Charge kiloWatt-hours, System End State of Charge kiloWatt-hours, Actual Distance Driven (miles) and Average System Voltage are required, otherwise they are not allowed.	(TI-19)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR047b	If Test Category (TI-43) equals 'Charge Depleting' as determined by the Test Procedure (TI-8), then Test Result/Emission Names (TI-19) with Integrated Amp-hours, System Start State of Charge kiloWatt-hours, System End State of Charge kiloWatt-hours, Actual Distance Driven (miles) and Average System Voltage are required, otherwise they are not allowed.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR049a	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' is submitted, then a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 2' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR049b	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' is submitted, then a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 2' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR050a	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 2' is submitted, then a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR050b	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 2' is submitted, then a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR051a	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 3' is submitted, then Test Results with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' and 'FE BAG 2' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR051b	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 3' is submitted, then Test Results with Test Result/Emission Name (TI-19) equal to 'FE BAG 1' and 'FE BAG 2' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR052a	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 4' is submitted, then Test Results with Test Result/Emission Name (TI-19) equal to 'FE BAG 1', 'FE BAG 2, and 'FE BAG 3' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR052b	If a Test Result with Test Result/Emission Name (TI-19) equal to 'FE BAG 4' is submitted, then Test Results with Test Result/Emission Name (TI-19) equal to 'FE BAG 1', 'FE BAG 2, and 'FE BAG 3' must also be submitted.	(TI-19)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR053	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012' and if Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to "Yes", then Analytically-Derived FE/CREE Base Verify Test Number (TI-13.6) is required, otherwise it is not allowed.	(TI-13.6)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR054	The Test Number provided for Analytically-Derived FE/CREE Base Test Number (TI-13.6) must exist in Verify and must belong to the submitter's Manufacturer Code or one of their approved Alternate Manufacturer Codes.	(TI-13.6)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR055	The Test Number provided for Analytically-Derived FE/CREE Base Verify Test Number (TI-13.6) can not be an analytically-derived test (with Analytically-Derived FE/CREE Indicator (TI-13.5) equal to "Yes").	(TI-13.6)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR056	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012' and Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to "Yes", then Analytically-Derived FE / CREE - Total Road Load Horsepower (TI-13.7) is required, otherwise it is not allowed.	(TI-13.7)	Added	Not in the System



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-BR057	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012' and Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to "Yes", then Analytically-Derived FE / CREE - ETW (TI-13.8) is required, otherwise it is not allowed.	(TI-13.8)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR058	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012' and Analytically-Derived FE/CREE Indicator (TI-13.5) is equal to "Yes", then Analytically-Derived FE / CREE - N/V Ratio (TI-13.9) is required, otherwise it is not allowed.	(TI-13.9)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR059	If Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012', then Manufacturer Confirmatory Test Indicator (TI-18.8) is required for tests being submitted by manufacturers and is not allowed for tests being submitted by LOD.	(TI-18.8)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR060	If Manufacturer Confirmatory Test Indicator (TI-18.8) is equal to "Yes", then Original Manufacturer Verify Test Number That Was Confirmed (TI-18.9) is required, otherwise it is not allowed.	(TI-18.9)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR061	Test Date (TI-6) of the test being submitted must be equal to or later than the Test Date (TI-6) of the Original Manufacturer Verify Test Number That Was Confirmed (TI-18.9).	(TI-18.9)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR062	Original Manufacturer Verify Test Number That Was Confirmed (TI-18.9) must exist on a Confirmatory Test Decision Information dataset for the same Vehicle ID (TI-4) and Vehicle Configuration Number (TI-5).	(TI-18.9)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR063	If Process Code (TI-0.5) is equal to "New Dataset" and if Original Test Vehicle Model Year (VI-7) is equal to or greater than '2012', then Retest Indicator (TI-22) is required for all tests submitted by LOD and Manufacturers.	(TI-22)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR064a	If Test Category (TI-43) equals 'CD' (Charge Depleting) as determined by the Test Procedure (TI-8), then PHEV Test Information Data Elements from TI-18.1 to TI-18.7 are required, otherwise not allowed.	(TI-18.1) (TI-18.2) (TI-18.3) (TI-18.4) (TI-18.5) (TI-18.6.1) (TI-18.7)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR064b	If Test Category (TI-43) equals 'CD' (Charge Depleting) as determined by the Test Procedure (TI-8), then PHEV Test Information Data Elements from TI-18.1 to TI-18.7 are required, otherwise not allowed.	(TI-18.1) (TI-18.2) (TI-18.3) (TI-18.4) (TI-18.5) (TI-18.6.1) (TI-18.7)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR065	Recharge Event Voltage (TI-18.3) must be between '100' and '500' volts.	(TI-18.3)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-BR066	If Original Manufacturer Verify Test Number That Was Confirmed (TI-18.9) is entered, then its' associated Mfr Code (TI-3), Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), Test Procedure (TI-8) and Test Fuel Type (TI-9) must match the same combination of data elements for the test being entered.	Original Manufacturer Verify Test Number That Was Confirmed (TI-18.9)	Added	Not in the System
Confirmatory Test	Test Information	LD-CTD-TI-BR067	If Test Procedure (TI-8) is equal to 3 (HWFE), 90 (US06) or 95 (SC03), then State of Charge Delta Indicator (TI-24) is required, otherwise it is optional.	(TI-24)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-IB001	The selected value for Analytically Derived FE/CREE Equivalent Test Weight (ETW) (TI-13.8) is not a valid value.	(TI-13.8)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-IB002	The selected value for Fuel Economy Value Unit (TI-20.5) is not a valid value.	(TI-20.5)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-IB003	The selected value for Test Procedure (TI-8) is not a valid value.	(TI-8)	Added	Not in the System
Certification Test Data	Test Information	LD-CTD-TI-IB004	The selected value for Retest Reason (TI-23) is not a valid value.	(TI-23)	Added	Not in the System



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Information	LD-CTD-TI-IB008	The selected value for Test Result/Emission Name (TI-19) is not a valid value.	(TI-19)	Added	Not in the System
Confirmatory Test	Decision Information	LD-CFT-DI-BR001	Manufacturer Code (DI-1) must exist in the system.	(DI-1)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR002	The Model Year (DI-5) must match the model year embedded in the Test Group (DI-7).	(DI-5) (DI-7)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR003	The Model Year (DI-5) must match the model year embedded in the Evaporative/Refueling Family (DI-8).	(DI-5) (DI-8)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR004	The Manufacturer Code (DI-1) must match the manufacturer code embedded in the Test Group (DI-7).	(DI-1) (DI-7)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR005	The Manufacturer Code (DI-1) must match the manufacturer code embedded in the Evaporative/Refueling Family (DI-8).	(DI-1) (DI-8)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR006	The displacement embedded in the Test Group (DI-7) must be a valid number.	(DI-7)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR008	The canister working capacity embedded in the Evaporative/Refueling Family (DI-8) must be a valid number.	(DI-8)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR010a	If Process Code (DI-0.5) is equal to 'R' (Report) or 'C' (Correction) then a record must already exist in the system with the same Vehicle ID (DI-3), Vehicle Configuration (DI-4), Manufacturer Code (DI-1) and Model Year (DI-5).	(DI-3) (DI-4) (DI-1) (DI-5)	Updated	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR011	If Process Code (DI-0.5) is equal to 'N' (New) then a record must already exist in the system with the same Vehicle ID (DI-3), Vehicle Configuration (DI-4), and Manufacturer Code (DI-1).	(DI-3) (DI-4) (DI-1)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR012	At least one Federal Exhaust Emission Standard Level (DI-9) or California Exhaust Standard Emission Standard Level (DI-10) must be selected.	(DI-9) (DI-10)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR013	If New Engine or Technology Indicator (DI-14) is equal to 'Y' (Yes) or 'YT' (Yes, but previously tested) then New Engine or Technology Description (DI-15) is required.	(DI-15)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR014	If Running Change (DI-25.2) is equal to 'Y' (Yes) then Running Change Number (DI 25.3) and Running Change Date (DI-25.4) are required.	(DI-25.3) (DI-25.4)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR015	Test Number (DI-17.5) must exist in the system.	(DI-17.5)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR016	If the Process Code (DI-0.5) is equal to 'R' (Report), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (DI-1) of the dataset for which the report was requested.	(DI-1)	Updated	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR017	If the Process Code (DI-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (DI-1) of the submitted dataset.	(DI-1)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR018	If the value of 'OT' (Other) is chosen for any of the 4 standards fields (DI-9 (Federal Exhaust Emission Standard Level), DI-10 (California Exhaust Emission Standard Level), DI-11 (Federal Evaporative Emission Standard Level), or DI-12 (California Evaporative Emission Standard Level)) then the Manufacturers Comments field (DI-28) is required.	(DI-28)	Not Under Development	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR019	If Process Code (DI-0.5) is equal to 'N' (New), then a record cannot already exist in the system with the same Vehicle ID (DI-3), Vehicle Configuration (DI-4), Manufacturer Code (DI-1) and Model Year (DI-5), unless it is in the "Waived", "Completed" or "Deleted" states.	(DI-3) (DI-4) (DI-1) (DI-5)	Updated	Active
Confirmatory Test	Decision Information	LD-CFT-DI-BR020	If Model Year (DI-5) is equal to or greater than "2012", then the provided Test Number (DI-17.5) can not have a Test Procedure (TI-8) equal to '62' (Electric Vehicle Urban Range Test) or '63' (Electric Vehicle Highway Range Test).	(DI-17.5) (TI-8)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Confirmatory Test	Decision Information	LD-CFT-DI-BR021	If Test Number (DI-17.5) is valid, then the Manufacturer Code (TI-3), Vehicle ID (TI-4), and Vehicle Configuration Number (TI-5) combination for the test must be the same as the Decision Information combination (Manufacturer Code (DI-1), Vehicle ID (DI-3) and Vehicle Configuration Number (DI-4)) for which it was entered.	Test Number (DI-17.5)	Added	Not in the System
Confirmatory Test	Decision Information	LD-CFT-DI-IB001	The selected value for Manufacturer test procedures used (DI-18) is not a valid value.	(DI-18)	Not Under Development	Not in the System
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR001a	If Process Code (SS-0.5) is equal to 'R' (Report) or 'C' (Correction), then a record must already exist in the system with the same Shift Schedule ID (SS-1), Shift Schedule Database Code (SS-2), and Manufacturer Code (SS-4).	(SS-1) (SS-2) (SS-4) (SS-0.5)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR001b	If Process Code (SS-0.5) is equal to 'R' (Report) or 'C' (Correction), then a record must already exist in the system with the same Shift Schedule ID (SS-1), Shift Schedule Database Code (SS-2), and Manufacturer Code (SS-4).	(SS-1) (SS-2) (SS-4) (SS-0.5)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR002	Manufacturer Code (SS-4) must exist in the system.	(SS-4)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR003	If Shift Action Code (SS-62) is equal to '99' (Alternative Shift Action), then Shift Point Screen (SS-63) is required.	(SS-63)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR004	If the Process Code (SS-0.5) is equal to 'R' (Report), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (SS-4) of the dataset for which the report was requested.	(SS-4)	Updated	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR005	If the Process Code (SS-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (SS-4) of the submitted dataset.	(SS-4)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR006	If Process Code (SS-0.5) is equal to 'N' (New), then a Shift Schedule record cannot already exist in the system with the same Shift Schedule ID (SS-1), Shift Schedule Database Code (SS-2), and Manufacturer Code (SS-4).	(SS-1) (SS-2) (SS-4)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR007	The Shift Time (SS-60) entered for a Shift Point (SS-59) must be greater than the Shift Time (SS-60) of the previous Shift Point (SS-59).	(SS-60) (SS-59)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR008	The Shift Point (SS-59) must be specified for all the entries or none of them.	(SS-59)	Not Under Development	Active
Confirmatory Test	Shift Schedule	LD-CFT-SS-BR009	If Process Code = "R" or "D" or "C" , a record must exist in Verify for the primary key of this module.	(SS-0.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR001a	If Process Code (SI-0.5) is equal to 'R' (Report) or 'C' (Correction) then a record must already exist in the system with the same Vehicle ID (SI-2), Vehicle Configuration (SI-3), and Manufacturer Code (SI-1) and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR001b	If Process Code (SI-0.5) is equal to 'R' (Report) or 'C' (Correction) then a record must already exist in the system with the same Vehicle ID (SI-2), Vehicle Configuration (SI-3), and Manufacturer Code (SI-1) and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR002	If Driver Selectable Transmission (SI-19) is equal to 'Y' (Yes), then Transmission Mode Tested Description (SI-20) is required.	(SI-20)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR003	If Canister Loading (SI-38) is equal to 'Y' (Yes), then Number of Canisters (SI-39) is required and Canister Working Capacity (SI-40) and Total Canister Volume (SI-41) are required for each canister.	(SI-39) (SI-40) (SI-41)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR004a	The Test Procedure Codes Selected for EPA Confirmatory Testing (SI-41.5) must include all codes that have been selected for EPA testing in the Decision Information submission for that Manufacturing Code (SI-1), Vehicle ID (SI-2), Vehicle Configuration (SI-3), and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5) (SI-41.5)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR004b	The Test Procedure Codes Selected for EPA Confirmatory Testing (SI-41.5) must include all codes that have been selected for EPA testing in the Decision Information submission for that Manufacturer Code (SI-1), Vehicle ID (SI-2), Vehicle Configuration (SI-3), and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR005	Either a shift schedule with the Manufacturer Code (SI-1), Shift Schedule ID (SI-46) and Shift Schedule Database Code (SI-47) must exist in the system, or a shift schedule with the LOD Manufacturer Code, Shift Schedule ID (SI-46) and Shift Schedule Database Code (SI-47) must exist in the system.	(SI-1) (SI-46) (SI-47)	Updated	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR006	If Engine Type (SI-10) is equal to 'Other' (99), then Test Vehicle Information Comments (SI-55) are required.	(SI-55)	Updated	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR007	Both a Multiplicative DF (SI-64) and Additive DF (SI-63) must not be submitted at the same time.	(SI-64) (SI-63)	Deleted	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR008	If Fuel (SI-56.5) is equal to 'D' (Diesel), then Upward Diesel Adjustment Factor (SI-93) is required.	(SI-93)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR009	If Fuel (SI-56.5) is equal to 'D' (Diesel), then Downward Diesel Adjustment Factor (SI-94) is required.	(SI-94)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR010	If the Process Code (SI-0.5) is equal to 'R' (Report), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (SI-1) of the dataset for which the report was requested.	(SI-1)	Updated	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR011	If the Process Code (SI-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (SI-1) of the submitted dataset.	(SI-1)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR012	If Process Code (SI-0.5) is equal to 'N' (New) then a Decision Information record must already exist in the system with the same Vehicle ID (SI-2), Vehicle Configuration (SI-3), Manufacturer Code (SI-1) and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR013	If Process Code (SI-0.5) is equal to 'N' (New), then a Supplemental Information record cannot already exist in the system with the same Vehicle ID (SI-2), Vehicle Configuration (SI-3), Manufacturer Code (SI-1) and Model Year (SI-3.5).	(SI-2) (SI-3) (SI-1) (SI-3.5)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR014	Exhaust Certification/In-Use Code (SI-90) must equal 'C' (Certification).	(SI-90)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR015	Evaporative Certification/In-Use Code (SI-97) must equal 'C' (Certification).	(SI-97)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR016	If the Test Procedure Code Selected for EPA Confirmatory Testing (SI-41.5) is equal to '23' (Federal Fuel 2-day Evap), '27' (California Fuel 2-day Evap), '62' (Electric Vehicle Urban Range Test), or '63' (Electric Vehicle Highway Range Test), then the Shift schedule ID (SI-46) is optional. otherwise, it is required.	(SI-46)	Updated	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR017	If Test Fuel Type Code for EPA Confirmatory Testing (DI-38.5) is not equal to '50' (Hydrogen) or '62' (Electricity), then Nominal Main Fuel Tank Capacity (SI-26) and Fuel Tank Capacity Unit (SI-27) are required.	(SI-26) (SI-27)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR018	If a Test Procedure Code Selected for EPA Confirmatory Testing (SI-41.5) is equal to '2', '3', '21', '25', or '90', then at least one Exhaust Standard for the test procedure is required.	(SI-92) (SI-56) (SI-90) (SI-91) (SI-57A) (SI-56.5) (SI-92) (SI-60) (SI-59) (SI-62) (SI-58) (SI-58.5) (SI-58.6) (SI-63) (SI-64) (SI-93) (SI-94) (SI-65) (SI-67)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR019	If a Test Procedure Code Selected for EPA Confirmatory Testing (SI-41.5) is equal to '23' or '27', then at least one Evaporative/Refueling Standard for the test procedure is required.	(SI-98) (SI-96) (SI-97) (SI-57B) (SI-80) (SI-72) (SI-71) (SI-75) (SI-73) (SI-76)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR020	If the Exhaust Standard Test Procedure (SI-92) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (SI-59) of 'HC-TOTAL' is not allowed.	(SI-59)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR021	If the Evaporative Standard Test Procedure (SI-98) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (SI-71) of 'HC-TOTAL' is not allowed.	(SI-71)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR022	An Exhaust Standard Test Result/Emission Name (SI-59) of 'HC' is only allowed for ORVR (Test Procedure (SI-92) equal to 24 or 44) or Running Loss (Test Procedure (SI-92) equal to 32 or 37) tests.	(SI-59)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR023	An Evaporative Test Result/Emission Name (SI-71) of 'HC' is only allowed for ORVR (Test Procedure (SI-98) equal to 24 or 44) or Running Loss (Test Procedure (SI-98) equal to 32 or 37) tests.	(SI-71)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR024	If the Certification Region Code (SI-56) is 'FA' (Federal) then the Exhaust Emission Standard Level (SI-57A) should be a Federal Standard.	(SI-57A)	Not Under Development	Inactive
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR025	The EPA Vehicle Class (SI-91) cannot be equal to 'LDVT' (LDV + LDT1) at the Exhaust Emission Standard Level.	(SI-91)	Not Under Development	Active
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR026	If Hybrid Indicator (VI-10.6) is equal to 'Y' (Yes), then Nominal Hybrid Battery Voltage (SI-37.5) is required; otherwise, it is not allowed.	(SI-37.5)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR027	If Hybrid Indicator (VI-10.6) is equal to 'Y' (Yes), then Maximum Hybrid Battery Current (SI-37.6) is required; otherwise, it is not allowed.	(SI-37.6)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR028	The following values for Test Result Emission Name (SI-59) are not valid: 'CREE' (Carbon-Related Exhaust Emissions), 'OPT-CREE' (Optional Carbon-Related Exhaust Emissions), 'AMP-HRS' (Integrated Amp-hours), 'START-SOC' (System Start State of Charge Watt-hours), 'END-SOC' (System End State of Charge Watt-hours), 'ACT-DISTANCE' (Actual Distance Driven (miles)), or 'AS-VOLT' (Average System Voltage).	(SI-59)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-BR029	'CREE' (Carbon-Related Exhaust Emissions), 'OPT-CREE' (Optional Carbon-Related Exhaust Emissions), 'AMP-HRS' (Integrated Amp-hours), 'START-SOC' (System Start State of Charge Watt-hours), 'END-SOC' (System End State of Charge Watt-hours), 'ACT-DISTANCE' (Actual Distance Driven (miles)), or 'AS-VOLT' (Average System Voltage) are not valid values within the Evaporative Refueling Emission Standards section for Test Result Emission Name (SI-71).	(SI-71)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB001a	The selected value for Fuel(s) (SI-56.5) under Exhaust Emissions Standards is not a valid value.	(SI-56.5)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB001b	The selected value for Fuel(s) (SI-80) under Evaporative Emissions Standard is not a valid value.	(SI-80)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB002a	The selected value for Test Procedure (SI-41.5) under Supplemental Test Procedures is not a valid value.	(SI-41.5)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB002b	The selected value for Test Procedure (SI-92) under Exhaust Emissions Standard is not a valid value.	(SI-92)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB002c	The selected value for Test Procedure (SI-98) under Exhaust Emissions Standard is not a valid value.	(SI-98)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB003a	The selected value for Test Result (SI-59) under Exhaust Emissions Standard is not a valid value.	(SI-59)	Added	Not in the System
Confirmatory Test	Supplemental Information	LD-CFT-SI-IB003b	The selected value for Test Result (SI-71) under Exhaust Emissions Standard is not a valid value.	(SI-71)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR001	Manufacturer Code (CL-1) must exist in the system.	(CL-1)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Carline	LD-CERT-CL-BR002a	If Process Code (CL-0.5) equals 'C' (Correction) then a record must already exist in the system with the same Model Year (CL-2), Division Code (CL-3), Carline Code (CL-4), and Manufacturer Code (CL-1).	(CL-4) (CL-1) (CL-3) (CL-2)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR002b	If Process Code (CL-0.5) equals 'R' (Report) then a record must already exist in the system with the same Model Year (CL-2), Division Code (CL-3), Carline Code (CL-4), and Manufacturer Code (CL-1).	(CL-4) (CL-1) (CL-3) (CL-2)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR003	For any submission, the Division Code (CL-3) must already exist in the system.	(CL-3)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR004	If Process Code (CL-0.5) equals 'N' (New) then the Carline Code (CL-4) must not exist in the system for that Manufacturer Code (CL-1) and Division Code (CL-3) and Model Year (CL-2).	(CL-4) (CL-2) (CL-3)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR005	If the Class Code (CL-5) equals '2' (Mini Compact), '3' (Subcompact), '4' (Compact), '5' (Midsize), '6' (Large), '7' (Small Station Wagon), '8' (Midsize Station Wagon), or '9' (Large Station Wagon) (indicating a passenger vehicle that is not a two-seater) then Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) are required, otherwise not allowed.	(CL-9) (CL-10)	Updated	Active
Certification	Carline	LD-CERT-CL-BR006	If Two-Door Passenger Volume (CL-11) is entered, then Two-Door Luggage Volume (CL-12) is required.	(CL-12)	Deleted	Inactive
Certification	Carline	LD-CERT-CL-BR007	If Four-Door Passenger Volume (CL-13) is entered, then Four-Door Luggage Volume (CL-14) is required.	(CL-14)	Deleted	Inactive
Certification	Carline	LD-CERT-CL-BR008	If Hatchback Passenger Volume (CL-15) is entered, then Hatchback Luggage Volume (CL-1) is required.	(CL-1)	Deleted	Inactive
Certification	Carline	LD-CERT-CL-BR009	If the Process Code (CL-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CL-1) of the dataset for which the report was requested.	(CL-1)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR010	If the Process Code (CL-0.5) is equal to 'N' or 'C' then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CL-1) of the submitted dataset.	(CL-0.5) (CL-1)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR011	If the Process Code (CL-0.5) is 'C' (Correction) then there cannot be any locked and active Certificate Summary Information Reports (CSIs) which reference this Carline Code (CL-4).	(CL-0.5) (CL-4)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR012	If this is a Batch Data set then for each Carline with Process Code (CL-0.5) equals 'N' (New) the Carline Code (CL-4), Manufacturer Code (CL-1), Division Code (CL-3) and Model Year (CL-2) must be unique.	(CL-4) (CL-1) (CL-3) (CL-2)	Not Under Development	Active
Certification	Carline	LD-CERT-CL-BR013	If FE Label Carline Class Code is 2 (Minicompact Cars) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be less than 85.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR014	If FE Label Carline Class Code is 3 (Subcompact Cars) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 85 and less than 100.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR015	If FE Label Carline Class Code is 4 (Compact Cars) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 100 and less than 110.	(CL-9) (CL-10) (CL-5)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Carline	LD-CERT-CL-BR016	If FE Label Carline Class Code is 5 (Midsize Cars) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 110 and less than 120.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR017	If FE Label Carline Class Code is 6 (Large Cars) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 120.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR018	If FE Label Carline Class Code is 7 (Small Station Wagons) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be less than 130.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR019	If FE Label Carline Class Code is 8 (Midsize Station Wagons) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 130 and less than 160.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR020	If FE Label Carline Class Code is 9 (Large Station Wagons) then the sum of Average Passenger Volume (CL-9) and Average Luggage Volume (CL-10) rounded to a whole number must be greater than or equal to 160.	(CL-9) (CL-10) (CL-5)	Added	Not in the System
Certification	Carline	LD-CERT-CL-BR021	If FE LABEL Carline Class Code (CL-5) equals '2', '3', '4', '5', '6', '7', '8', or '9', then at least one of the following conditions must be met: 1) both 2-Door Passenger Volume (CL-11) and 2-Door Luggage Volume (CL-12) must not be equal to zero or NULL; or 2) both 4-Door Passenger Volume (CL-13) and 4-Door Luggage Volume (CL-14) must not be equal to zero or NULL; or 3) both Hatchback Passenger Volume (CL-15) and Hatchback Luggage Volume (CL-16) must not be equal to zero or NULL.	(CL-11) (CL-12) (CL-13) (CL-14) (CL-15) (CL-16)	Added	Not in the System
Certification	Carline	LD-CERT-CL-IB001	The selected value for FE Label Carline Class Code (CL-5) is not a valid value.	(CL-5)	Added	Not in the System
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR001a	If Process Code (EV-0.5) is equal to 'C' (Correction) then a record must already exist in the system with the same Evaporative/Refueling Family Name (EV-1) and Model Year (EV-1.5).	(EV-0.5)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR001b	If Process Code (EV-0.5) is equal to 'R' (Report) then a record must already exist in the system with the same Evaporative/Refueling Family Name (EV-1) and Model Year (EV-1.5).	(EV-0.5)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR002	The Manufacturer Code embedded in the Evaporative/Refueling Family Name (EV-1) must match the Submitter's Manufacturer Code (in Submission Author Details).	(EV-19) (EV-1)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR003	The canister working capacity embedded in the Evaporative/Refueling Family (EV-1) must be a valid number.	(EV-1)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR005	If Evaporative Summary Information (EVS) Type (EV-2) equals 'N' (New) then a record must not exist in the system for this Evaporative/Refueling Family Name (EV-1) and Model Year (EV-1.5).	(EV-1) (EV-1.5)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR006	If Fuel Tank Material (EV-7) is equal to 'P' (Plastic) or 'OT' (Other) then Fuel Tank Material Description (EV-8) is required.	(EV-8)	Not Under Development	Active



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR007	If Air Intake System Vapor Storage Device (EV-10) is equal to 'Y' (Yes) then Air Intake System Vapor Storage Device Description (EV-10.5) is required.	(EV-10.5)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR008	If Number of Bleed Canisters (EV-15) is greater than '0' then Bleed Canister Total Working Capacity (EV-16) is required.	(EV-16)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR009	If the Process Code (EV-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (EV-19) of the dataset for which the report was requested.	(EV-0.5) (EV-19)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR010	Fuel 1 (EV-4) cannot be equal to 'NA' (Not Applicable).	(EV-4)	Deleted	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR011	If the Process Code (EV-0.5) is equal to 'N' (New) or 'C' (Correction) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (EV-19) of the submitted dataset.	(EV-19)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR012	Manufacturer Code (EV-19) must exist in the system.	(EV-19)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR013	If the Process Code (EV-0.5) is 'C' (Correction) then there cannot be any locked and active Certificate Summary Information Reports (CSIs) which reference this Evaporative/Refueling Family Name (EV-1).	(EV-0.5) (EV-1)	Not Under Development	Active
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR014	One of the Fuel(s) (EV-3.5) selected must be "Gasoline" (G), "Methanol" (M), "Ethanol" (E), "Compressed Natural Gas" (CNG), "Liquified Natural Gas" (LNG), or "Liquified Petroleum Gas" (LPG).	(EV-3.5)	Added	Not in the System
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR015	If more than one fuel is selected for Fuel(s) (EV-3.5), then Multiple Fuel Storage (EV-3.6) is required, otherwise it is not allowed.	(EV-3.6)	Added	Not in the System
Certification	Evaporative / Refueling Family	LD-CERT-EV-BR017	The selected value for Multiple Fuel Storage (EV-3.6) is not a valid value.	(EV-3.6)	Added	Not in the System
Certification	Evaporative / Refueling Family	LD-CERT-EV-IB001	The selected value for Fuel(s) (EV-3.5) is not a valid value.	(EV-3.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR001a	If Process Code (TG-0.5) equals 'C' (Correction) then a record must already exist in the system with the same Test Group Name (TG-2) and Model Year (TG-6).	(TG-2) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR001b	If Process Code (TG-0.5) equals 'R' (Report) then a record must already exist in the system with the same Test Group Name (TG-2) and Model Year (TG-6).	(TG-2) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR002	If CSI Type (TG-4) equals 'N' (New) then a record must not exist in the system for this Test Group Name (TG-2) and Model Year (TG-6).	(TG-2) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR003	If CSI Type (TG-4) equals 'R' (Running Change) then Running Change Reference Number (TG-5) is required.	(TG-5)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR004	The Model Year (TG-6) must match the model year embedded in the Test Group Name (TG-2).	(TG-6) (TG-2)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR005	The Manufacturer Code (TG-1) must match the manufacturer code embedded in the Test Group (TG-2).	(TG-1) (TG-2)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR006	The displacement embedded in the Test Group (TG-2) must be a valid number.	(TG-2)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR008	If Drive Source (TG-7) is equal to 'C' (Combustion Engine), then Vehicle Fuel Category (TG-8) must equal 'SF' (Single Fuel), 'FF' (Flex Fuel), 'DF' (Duel Fuel), or 'BF' (Bi-Fuel).	(TG-8)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR009	If Drive Source (TG-7) is equal to 'E' (Electric Motor), then Vehicle Fuel Category (TG-8) must equal 'EV' (Battery-Electric) or 'FC' (Fuel Cell Electric).	(TG-8)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR010	If Drive Source (TG-7) is equal to 'H' (Hybrid), then Vehicle Fuel Category (TG-8) must equal 'FH' (Flex-Fuel Hybrid) or 'HV' (Hybrid).	(TG-8)	Deleted	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR011	If Model Year (TG-6) is greater than or equal to 2009 and the fifth character in the Test Group Name (TG-2) is equal to 'K' (Heavy Duty Vehicle) or if Model Year (TG-6) is less than 2009 and the fifth character in the Test Group Name (TG-2) is equal to 'D' (Heavy Duty Vehicle), then Federal Clean Fuel Vehicle (TG-9) must not be equal to 'Y' (Yes).	(TG-9)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR012	If Federal Clean Fuel Vehicle (TG-9) is equal to 'Y' (Yes) then Federal Clean Fuel Vehicle Standard (TG-10) is required, otherwise it must not be present.	(TG-10)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR013	If Federal Clean Fuel Vehicle (TG-9) is equal to 'Y' (Yes) then Federal Clean Fuel Vehicle ILEV (TG-11) is required, otherwise it must not be present or must be equal to 'N' (No).	(TG-11)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR014	If Federal Clean Fuel Vehicle ILEV (TG-11) is equal to 'Y' (Yes), then either Fuel1 (TG-17) must be equal to 'CNG', 'LNG' or 'LPG' or Vehicle Fuel Category (TG-8) must be equal to 'EV' (Battery-Electric) or 'FC' (Fuel Cell-Electric).	(TG-17) (TG-8)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR015	If EPA Vehicle Class (TG-16) is equal to 'M6' (MDV6- CA LEV2 MDV GVW 8,501-10,000) or 'M7' (MDV7- CA LEV2 MDV GVW 10,001-14,000) then Certification Region Code (TG-14) must contain 'CA' (California + 177 States).	(TG-14)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR016	The Vehicle Class (TG-205) cannot be equal to 'LDVT' (LDV + LDT1) at the Test Group Exhaust Emission Standard Level.	(TG-205)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR017	Fuel 1 (TG-17) cannot be equal to 'NA' (Not Applicable).	(TG-17)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR018	If Vehicle Fuel Category (TG-8) is equal to 'FF' (Flex-Fuel), 'FH' (Flex-Fuel Hybrid), 'DF' (Dual Fuel) or 'BF' (Bi-Fuel) then Fuel 2 (TG-18) is required and must not equal 'NA' (Not Applicable).	(TG-18)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR019	If OBD Compliance Type (TG-19) is equal to 'F' (Federal) then Certification Region Code (TG-14) cannot be equal to 'CA' (California + 177 States).	(TG-14)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR020	Number of Test Group OBD Deficiencies (TG-22) can be equal to 0 only if Test Group OBD Compliance Level (TG-21) is equal to 'F' (Full- No Deficiencies).	(TG-22)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR021	If Drive Source (TG-7) is equal to 'E' then Hybrid/Combustion Engine Description (TG-26 to TG-52) is not allowed.	(TG-26) (TG-27) (TG-28) (TG-29) (TG-30) (TG-31) (TG-32) (TG-32.5) (TG-32.6) (TG-36) (TG-37) (TG-38) (TG-39) (TG-40) (TG-41) (TG-42) (TG-43) (TG-44) (TG-45) (TG-46) (TG-47) (TG-48) (TG-49) (TG-50) (TG-51) (TG-52)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR022	If Drive Source (TG-7) is equal to 'H' (Hybrid) then Hybrid Type (TG-26) is required, otherwise it is not allowed.	(TG-26)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR023	If Hybrid Type (TG-26) is equal to 'OT' (Other) then Hybrid Type Other Description (TG-27) must be present, otherwise it is optional.	(TG-27)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR024	If Engine Type (TG-28) is equal to 'GT' (Gas Turbine), 'RK' (Rankine), 'STIR' (Stirling) or 'OT' (Other) then Engine Type Description (TG-29) is required, otherwise it is optional.	(TG-29)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR025a	If Drive Source (TG-7) is equal to 'C' (Combustion Engine) then Engine Block Arrangement (TG-30), Number of Cylinders/Rotors (TG-32), Basic fuel metering system 1 (TG-33), Number of after Treatment Devices (TG-53), After Treatment Device Type (TG-56), ATD Precious Metal Type (TG-57), Substrate Material (TG-59), Substrate Construction (TG-60), Number Air Fuel Sensors (TG-61), and Number Knock Sensors (TG-65) are required.	(TG-30) (TG-32) (TG-33) (TG-53) (TG-56) (TG-57) (TG-59) (TG-60) (TG-61) (TG-65)	Deleted	Active



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR025b	If Drive Source (TG-7) is equal to 'H' (Hybrid) and Hybrid Type (TG-26) is equal to 'EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic) then Engine Block Arrangement (TG-30), Number of Cylinders/Rotors (TG-32), Basic fuel metering system 1 (TG-33), Number of after Treatment Devices (TG-53), After Treatment Device Type (TG-56), ATD Precious Metal Type (TG-57), Substrate Material (TG-59), Substrate Construction (TG-60), Number Air Fuel Sensors (TG-61), and Number Knock Sensors (TG-65) are required.	(TG-30) (TG-32) (TG-33) (TG-53) (TG-56) (TG-57) (TG-59) (TG-60) (TG-61) (TG-65)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR026	If Engine Type (TG-28) is equal to '4SI' (4-Stroke Spark Ignition), '2SI' (2-Stroke Spark Ignition), '4SCI' (4-Stroke Compression Ignition), '2SCI' (2-Stroke Compression Ignition) or 'RT' (Rotary) then Engine Block Arrangement (TG-30) and Number of Cylinders/Rotors (TG-32) are required.	(TG-30) (TG-32)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR027	If Engine Block Arrangement (TG-30) is equal to 'OT' (Other) then Engine Block Arrangement Description if Other (TG-31) is required.	(TG-31)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR028	If Vehicle Fuel Category (TG-8) is equal to 'DF' (Dual Fuel) or 'BF' (Bi-Fuel) then Basic fuel metering system 2 (TG-35) is required.	(TG-35)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR029	If Vehicle Fuel Category (TG-8) is equal to 'FF' (Flex-Fuel) or 'FH' (Flex-Fuel Hybrid) then Basic Fuel Metering System 2 (TG-35) is not allowed.	(TG-35)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR030	If Engine Type (TG-28) is equal to '4SI' (4-Stroke Spark Ignition), '2SI' (2-Stroke Spark Ignition), '4SCI' (4-Stroke Compression Ignition), '2SCI' (2-Stroke Compression Ignition) or 'RT' (Rotary) then Engine Rated Horsepower (TG-37), Engine Displacement (TG-38), Air Aspiration Method (TG-47) are required, otherwise they are optional.	(TG-37) (TG-38) (TG-47)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR031	If Engine Type (TG-28) is equal to '4SI' (4-Stroke Spark Ignition), '2SI' (2-Stroke Spark Ignition), '4SCI' (4-Stroke Compression Ignition), or '2SCI' (2-Stroke Compression Ignition) then Cylinder Deactivation (TG-39), Variable Valve Timing (TG-41), Variable Valve Lift (TG-43), Number of Inlet Valves per Cylinder (TG-45), and Number of Exhaust Valves Per Cylinder (TG-46) are required, otherwise they are optional.	(TG-39) (TG-41) (TG-43) (TG-45) (TG-46)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR032	If Cylinder Deactivation (TG-39) is equal to 'Y' (Yes) then Cylinder Deactivation Description (TG-40) is required.	(TG-40)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR033	If Variable Valve Timing (TG-41) is equal to 'Y' (Yes) then Variable Valve Timing System Description (TG-42) is required.	(TG-42)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR034	If Variable Valve Lift (TG-43) is equal to 'Y' (Yes) then Variable Valve Lift System Description (TG-44) is required.	(TG-44)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR035	If Air Aspiration Device Method (TG-47) is equal to 'OT' (Other) then Air Aspiration Method Description (TG-50) is required.	(TG-50)	Not Under Development	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR036a	If Drive Source (TG-7) is equal to 'E' (Electric Motor) then Exhaust Emission Control System Data Elements (Number After Treatment Devices (TG-53), ATD Comments (TG-54), ATD Number (TG-55), ATD Type (TG-56), ATD Precious Metal Type (TG-57), ATD Precious Metal Type Other Description (TG-58), Substrate Material (TG-59), Substrate Construction (TG-60), Substrate Construction Other Description (TG-102), Number Air Fuel Sensors (TG-61), Air Fuel Sensor Type (TG-63), Air Fuel Sensor Type Other (TG-64), Number Knock Sensors (TG-65), Sensor Comments (TG-66), Exhaust Gas Recirculation (TG-67), Cooled Exhaust Gas Recirculation (TG-68), EGR Type (TG-69), EGR Other Description (TG-70), Closed Loop Air Injection System (TG-71), Air Injection Type (TG-72), Air Injection Other Description (TG-73), Direct Ozone Reduction Device (TG-74), DOR Device Other Description (TG-75), and Emission Control Device Comments (TG-76)) are not allowed.	(TG-53) (TG-54) (TG-55) (TG-56) (TG-57) (TG-58) (TG-59) (TG-60) (TG-102) (TG-61) (TG-63) (TG-64) (TG-65) (TG-66) (TG-67) (TG-68) (TG-69) (TG-70) (TG-71) (TG-72) (TG-73) (TG-74) (TG-75) (TG-76)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR036b	If Drive Source (TG-7) is equal to 'E' (Electric Motor) then Exhaust Emission Control System Data Elements (Number After Treatment Devices (TG-53), ATD Comments (TG-54), ATD Number (TG-55), ATD Type (TG-56), ATD Precious Metal Type (TG-57), ATD Precious Metal Type Other Description (TG-58), Substrate Material (TG-59), Substrate Construction (TG-60), Substrate Construction Other Description (TG-102), Number Air Fuel Sensors (TG-61), Air Fuel Sensor Type (TG-63), Air Fuel Sensor Type Other (TG-64), Number Knock Sensors (TG-65), Sensor Comments (TG-66), Exhaust Gas Recirculation (TG-67), Cooled Exhaust Gas Recirculation (TG-68), EGR Type (TG-69), EGR Other Description (TG-70), Closed Loop Air Injection System (TG-71), Air Injection Type (TG-72), Air Injection Other Description (TG-73), Direct Ozone Reduction Device (TG-74), DOR Device Other Description (TG-75), and Emission Control Device Comments (TG-76)) are not allowed.	(TG-53) (TG-54) (TG-55) (TG-56) (TG-57) (TG-58) (TG-59) (TG-60) (TG-102) (TG-61) (TG-63) (TG-64) (TG-65) (TG-66) (TG-67) (TG-68) (TG-69) (TG-70) (TG-71) (TG-72) (TG-73) (TG-74) (TG-75) (TG-76)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR036c	If Drive Source (TG-7) is equal to 'E' (Electric Motor) then Exhaust Emission Control System Data Elements (Number After Treatment Devices (TG-53), ATD Comments (TG-54), ATD Number (TG-55), ATD Type (TG-56), ATD Precious Metal Type (TG-57), ATD Precious Metal Type Other Description (TG-58), Substrate Material (TG-59), Substrate Construction (TG-60), Substrate Construction Other Description (TG-102), Number Air Fuel Sensors (TG-61), Air Fuel Sensor Type (TG-63), Air Fuel Sensor Type Other (TG-64), Number Knock Sensors (TG-65), Sensor Comments (TG-66), Exhaust Gas Recirculation (TG-67), Cooled Exhaust Gas Recirculation (TG-68), EGR Type (TG-69), EGR Other Description (TG-70), Closed Loop Air Injection System (TG-71), Air Injection Type (TG-72), Air Injection Other Description (TG-73), Direct Ozone Reduction Device (TG-74), DOR Device Other Description (TG-75), and Emission Control Device Comments (TG-76)) are not allowed.	(TG-53) (TG-54) (TG-55) (TG-56) (TG-57) (TG-58) (TG-59) (TG-60) (TG-102) (TG-61) (TG-63) (TG-64) (TG-65) (TG-66) (TG-67) (TG-68) (TG-69) (TG-70) (TG-71) (TG-72) (TG-73) (TG-74) (TG-75) (TG-76)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR037	If After Treatment Device Precious Metal Type (TG-57) is equal to 'OT' (Other) then After Treatment Device Precious Metal Type Other Description (TG-58) is required.	(TG-58)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR038	If Substrate Construction (TG-60) is equal to 'OT' (Other) then Substrate Construction Other Description (TG-102) is required.	(TG-102)	Not Under Development	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR039a	If Drive Source (TG-7) is equal to 'C' (Combustion Engine) then Air Fuel Sensor Type (TG-63) is required unless Number Air Fuel Sensors (TG-61) is equal to 0.	(TG-63)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR039b	If Drive Source (TG-7) is equal to 'H' (Hybrid) and Hybrid Type (TG-26) is equal to 'EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic), then Air Fuel Sensor Type (TG-63) is required unless Number Air Fuel Sensors (TG-61) is equal to 0.	(TG-63)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR040	If Air Fuel Sensor Type (TG-63) is equal to 'OT' (Other) then Air Fuel Sensor Type Other (TG-64) is required.	(TG-64)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR041	If Vehicle Fuel Category (TG-8) is equal to 'HV' (Hybrid), 'EV' (Battery-Electric), 'FH' (Flex-Fuel Hybrid), or 'FC' (Fuel Cell-Electric) then Energy Storage Device (TG-77) is required, otherwise it is not allowed.	(TG-77)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR042	If Energy Storage Device (TG-77) is equal to 'OT' (Other) then Energy Storage Device Other Description (TG-78) is required.	(TG-78)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR043	If Energy Storage Device (TG-77) is equal to 'B' (Battery) or 'BC' (Battery + Capacitor) then Battery Type (TG-79), Number of Batteries (TG-81), Total Voltage of Battery Packs (TG-82), Battery Energy Capacity (TG-83), Battery Specific Energy (TG-84), Battery Charger Type (TG-85) are required, otherwise they are not allowed.	(TG-79) (TG-81) (TG-82) (TG-83) (TG-84) (TG-85)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR044	If Energy Storage Device (TG-77) is equal to 'B' (Battery) or 'BC' (Battery + Capacitor) and Battery Type (TG-79) is equal to 'OT' (Other) then Other Battery Type Description (TG-80) is required, otherwise it is not allowed.	(TG-80)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR045	If Energy Storage Device (TG-77) is equal to 'C' (Capacitor) or 'BC' (Battery + Capacitor) then Number of Capacitors (TG-86) is required, otherwise it is not allowed.	(TG-86)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR046	A Capacitor Rating (TG-87) must be present for each capacitor identified in the Number of Capacitors (TG-86).	(TG-87)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR047	If Energy Storage Device (TG-77) is equal to 'H' (Hydraulic) then Hydraulic System Description (TG-89) is required.	(TG-89)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR048	If Regenerative Braking Type (TG-90) is equal to 'OT' (Other) then Regenerative Braking Type Other Description (TG-91) is required.	(TG-91)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR049	If Regenerative Braking Type (TG-90) is not equal to 'NA' (Not Applicable) then Regenerative Braking Source (TG-92) and Driver Controlled Regenerative Braking (TG-93) are required, otherwise they are not allowed.	(TG-92) (TG-93)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR050	If Hybrid Type (TG-26) is equal to 'EM' (IC Engine/Electric Motor) then Number of Drive Motor Generators (TG-94) is required, otherwise it is optional.	(TG-94)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR051	If Motor Generator Type (TG-95) is equal to 'OT' (Other) then Other Motor Generator Type Other Description (TG-96) is required.	(TG-96)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR052	A Motor Generator Type (TG-95) and Rated Motor Generator Power (TG-97) are required for each Drive Motor Generator identified in the Number of Drive Motor Generators (TG-94) and not allowed if Number of Drive Motor Generators (TG-94) equals 0. ( Number of Drive Motor Generators Identified:	(TG-95) (TG-97)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR053	If Vehicle Fuel Category (TG-8) is equal to 'FC' (Fuel Cell Electric) then Fuel Cell Description (TG-98) is required.	(TG-98)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR054	If Vehicle Fuel Category (TG-8) is equal to 'FC' (Fuel Cell Electric) and Fuel 1 (TG-17) is equal to 'H' (Hydrogen) then Fuel Cell On board H2 Storage Capacity (TG-99) is required.	(TG-99)	Deleted	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR055	If Fuel Cell On board H2 Storage Capacity (TG-99) is present then Usable H2 Fill Capacity (TG-100) is required, otherwise (TG-100) is not allowed.	(TG-100)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR056	The provided Evaporative Test Number(s) (TG-202) must exist in the system.	(TG-202)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR057	If SFTP Compliance Indicator (TG-216.8) is equal to 'Y' (Yes) then FTP Test Number (for SFTP Composite Calculation) (TG-217) and US06 Test Number (for SFTP Composite Calculation) (TG-218) are required.	(TG-217) (TG-218)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR058	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the provided FTP Test Number (TG-217) must exist in the system with a Test Category (TI-43) of 'FTP' (Test Procedures (TI-8) = 2, 11, 21, 25, 31, 35, 41, 45).	(TG-217)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR059	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the provided US06 Test Number (TG-218) must exist in the system with a Test Category (TI-43) of 'US06' (Test Procedures (TI-8) = 90).	(TG-218)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR060	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the provided SC03 Test Number (TG-218) must exist in the system with a Test Category (TI-43) of 'SC03' (Test Procedures (TI-8) = 95).	(TG-218)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR061	If the SFTP Compliance Indicator (TG-216.8) is 'N' (No) then the SFTP CO Option (TG-216.9) must not be 'Y' (Yes).	(TG-216.9)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR062a	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the FTP test number (TG-217) must identify a test that has HC-NM (Non-Methane Hydrocarbon) and NOX (Nitrogen Oxides) emission results (TI-19).	(TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR062b	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the US06 test number (TG-218) must identify a test that has HC-NM (Non-Methane Hydrocarbon) and NOX (Nitrogen Oxides) emission results (TI-19).	(TG-218)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR062c	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then the SC03 test number (TG-219) must identify a test that has HC-NM (Non-Methane Hydrocarbon) and NOX (Nitrogen Oxides) emission results (TI-19).	(TG-219)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR063a	If the SFTP Composite CO Option (TG-216.9) is 'Y' (Yes) then the FTP test number (TG-217) must identify a test that has CO (Carbon Monoxide) emission results (TI-19).	(TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR063b	If the SFTP Composite CO Option (TG-216.9) is 'Y' (Yes) then the US06 test number (TG-218) must identify a test that has CO (Carbon Monoxide) emission results (TI-19).	(TG-218)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR063c	If the SFTP Composite CO Option (TG-216.9) is 'Y' (Yes) then the SC03 test number (TG-219) must identify a test that has CO (Carbon Monoxide) emission results (TI-19).	(TG-219)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR064a	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then there must be at least one exhaust emission standard with the Test Result/Emission Name (TG-209) of HC-NM+NOX-COMP (Non-Methane Hydrocarbon + NOx SFTP Composite).	(TG-209)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR064b	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then for each HC-NM+NOX-COMP (Non-Methane Hydrocarbon + NOx SFTP Composite) emission standard, there must also be a NOX (Nitrogen Oxides) exhaust emission standard with the same Cert/In Use Code (TG-200.5) and Useful Life (TG-210) as the HC-NM+NOX-COMP standard, and the same test procedure as the test identified by the FTP test number (TG-217).	(TG-200.5) (TG-210) (TG-217)	Updated	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR064c	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) then for each HC-NM+NOX-COMP (Non-Methane Hydrocarbon + NOx SFTP Composite) emission standard, there must also be either HC-NM (Non-Methane Hydrocarbon) or NMOG (Non-Methane Organic Gases) exhaust emission standards with the same Cert/In Use Code (TG-200.5) and Useful Life (TG-210) as the HC-NM+NOX-COMP standard, and the same test procedure as the test identified by the FTP test number (TG-217).	(TG-200.5) (TG-210) (TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR065a	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) and the SFTP CO Option (TG-216.9) is 'Y' (Yes) then there must be at least one exhaust emission standard with the Test Result/Emission Name (TG-209) of CO-COMP (CO SFTP Composite).	(TG-209)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR065b	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) and the SFTP CO Option (TG-216.9) is 'Y' (Yes) then for each CO-COMP (CO SFTP Composite) emission standard, there must also be a CO (Carbon Monoxide) exhaust emission standard with the same Cert/In Use Code (TG-200.5) and Useful Life (TG-210) as the CO-COMP standard, and the same test procedure as the test identified by the FTP test number (TG-217).	(TG-200.5) (TG-210) (TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR066	If a PM-COMP (PM SFTP Composite) emission standard Test Result/Emission Name (TG-209) is provided, there must also be a PM (Particulate Matter) exhaust emission standard with the same Cert/In Use Code (TG-200.5) and Useful Life (TG-210) as the PM-COMP standard, and the same test procedure as the test identified by the FTP test number (TG-217).	(TG-200.5) (TG-210) (TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR067	If the Manufacturer Code (TG-300) of the owner of the carline is different than the Submitter's Manufacturer Code (in Submission Author Details), then permission must be granted by the Owner Manufacturer for the Submitting Manufacturer to use the carline.	(TG-300)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR068	If Transmission Type (TG-307) is equal to 'OT' (Other) then Other Transmission Type Description (TG-308) is required.	(TG-308)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR069	If the Process Code (TG-0.5) is equal to 'R' (Report) the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TG-1) of the dataset for which the report was requested.	(TG-1)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR070	If the Process Code (TG-0.5) is equal to 'N' (New) or 'C' (Correction) then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TG-1) of the submitted dataset.	(TG-1)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR071	If Drive Source (TG-7) equals 'C' (Combustion Engine) or if Drive Source (TG-7) equals 'H' (Hybrid) and Hybrid Type (TG-26) equals 'EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic) then Engine Type (TG-28) is required.	(TG-28)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR072	If Air Aspiration Method (TG-47) is equal to 'OT' (Other) then Air Aspiration Method Other (TG-50) is required, otherwise it is optional.	(TG-50)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR073	If Air Aspiration Method (TG-47) is equal to 'TC' (Turbocharged), 'SC' (Supercharged), 'TS' (Turbocharged and Supercharged) or 'OT' (Other), then Number of Air Aspiration Devices (TG-48) is required, otherwise it must be equal to 0, if present.	(TG-48)	Not Under Development	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR073b	If Air Aspiration Method (TG-47) is equal to 'TC' (Turbocharged), 'SC' (Supercharged), 'TS' (Turbocharged and Supercharged) or 'OT' (Other), then Number of Air Aspiration Devices (TG-48) is required, otherwise it must be equal to 0, if present.	(TG-48)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR074	If Air Aspiration Method (TG-47) is equal to 'TC' (Turbocharged), 'SC' (Supercharged), 'TS' (Turbocharged and Supercharged) or 'OT', then Air Aspiration Device Configuration (TG-49) is required, otherwise it is not allowed.	(TG-49)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR075	If Air Aspiration Device Configuration (TG-49) is equal to 'N' (Single), then Number of Air Aspiration Devices (TG-48) must be 1.	(TG-48)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR076	If Air Aspiration Device Configuration (TG-49) is not equal to 'N' (Single), then Number of Air Aspiration Devices (TG-48) must be Engine Configuration Number (TG-36).	(TG-48)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR077	If Fuel (TG-204) is equal to 'D' (Diesel), then Upward Diesel Adjustment Factor (TG-215.5) is required.	(TG-215.5)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR078	If Fuel (TG-204) is equal to 'D' (Diesel), then Downward Diesel Adjustment Factor (TG-215.6) is required.	(TG-215.6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR079	The Manufacturer Code embedded in the Test Group Name (TG-2) must match the Submitter's Manufacturer Code (in Submission Author Details).	(TG-2)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR080a	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) and there is an exhaust emission standard entered with the emission name (TG-209) of PM-COMP (PM SFTP Composite), then the FTP test number (TG-217) must identify a test that has a PM emission result (TI-19).	(TG-217)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR080b	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) and there is an exhaust emission standard entered with the emission name (TG-209) of PM-COMP (PM SFTP Composite), then the US06 test number (TG-218) must identify a test that has a PM emission result (TI-19).	(TG-218)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR080c	If the SFTP Compliance Indicator (TG-216.8) is 'Y' (Yes) and there is an exhaust emission standard entered with the emission name (TG-209) of PM-COMP (PM SFTP Composite), then the SC03 test number (TG-219) must identify a test that has a PM emission result (TI-19).	(TG-219)	Updated	Active
Certification	Test Group	LD-CERT-TG-BR081a	There must be at least one Exhaust Standard that meets the following criteria: a Test Result/Emission Name (TG-209) of 'CO' (Carbon Monoxide); a Test Procedure (TG-204.5) with a Test Category (TG-203) of 'FTP' (Test Procedures (TI-8) equal to 2, 11, 21, 25, 31, 35, 41, 45, 51, 52); a Cert Region Code (TG-200) of 'FA' (Federal) if there are federal sales for this test group (Cert Region Code (TG-14) of 'FA' (Federal)), or a Cert Region Code (TG-200) of 'CA' if there are only California Sales for this test group.	(TG-201)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR081b	There must be at least one Exhaust Standard that meets the following criteria: a Test Result/Emission Name (TG-209) of 'CO' (Carbon Monoxide); a Test Procedure (TG-204.5) with a Test Category (TG-203) of 'FTP' (Test Procedures (TI-8) equal to 2, 11, 21, 25, 31, 35, 41, 45, 51, 52); a Cert Region Code (TG-200) of 'FA' (Federal) if there are federal sales for this test group (Cert Region Code (TG-14) of 'FA' (Federal)), or a Cert Region Code (TG-200) of 'CA' if there are only California Sales for this test group.	(TG-201)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR082	There must be at least one Evaporative Standard for each Evaporative Family with a Test Result/Emission Name (TG-225) of 'CO'.	(TG-225)	Not Under Development	Inactive



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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR083	If Air Aspiration Method (TG-47) is not equal to 'NA' (Naturally Aspirated) then Charge Air Cooler Type (TG-51) is required.	(TG-51)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR084	If requesting a CSI Report then a record must already exist in the system with the same Test Group Name (TG-2), Evaporative/Refueling Family Name (TG-3) and Model Year (TG-6).	(TG-2) (TG-3) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR085	If there exists any Drive Source (TG-7.1) with 'C' (Combustion Engine), then Engine Description fields from TG-26 to TG-52 (except TG-27, TG-31, TG-50 and TG-52) are required; otherwise, it is not allowed.	(TG-26) (TG-28) (TG-29) (TG-30) (TG-32) (TG-32.5) (TG-32.6) (TG-36) (TG-37) (TG-38) (TG-39) (TG-40) (TG-41) (TG-42) (TG-43) (TG-44) (TG-45) (TG-46) (TG-47) (TG-48) (TG-49) (TG-51)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR086	If there exists any Drive Source (TG-7.1) with 'E' (Electric Motor), then the data set from TG-77 to TG-101 (except TG-78, TG-80, TG-88, TG-89, TG-91, TG-96 and TG-101) is required; otherwise, it is not allowed.	(TG-77) (TG-78) (TG-79) (TG-80) (TG-81) (TG-82) (TG-83) (TG-84) (TG-89) (TG-90) (TG-91) (TG-92) (TG-93) (TG-94) (TG-95) (TG-96) (TG-97) (TG-98) (TG-99) (TG-100) (TG-101)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR087	If Engine Type (TG-28) is equal to '4SI' (4-Stroke Spark Ignition), '2SI' (2-Stroke Spark Ignition), '4SCI' (4-Stroke Compression Ignition), '2SCI' (2-Stroke Compression Ignition) or 'RT' (Rotary) then Engine Configuration fields (TG-36), (TG-52) are required.	(TG-36) (TG-52)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR088	The provided Exhaust Test Number(s) (TG-202.5) must exist in the system.	(TG-202.5)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR089	The provided Carline Manufacturer Code (TG-300), Division Code (TG-301), Carline Code (TG-302), and Model Year (TG-6) must specify a carline that exists in the system.	(TG-302) (TG-300) (TG-301) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR090	The provided Evaporative/Refueling Family (TG-3) and Model Year (TG-6) must exist in the system.	(TG-3) (TG-6)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR091	If the Manufacturer Code of the owner for the provided Exhaust Test Number (TG-202.5) is different than the Submitter's Manufacturer Code (in Submission Author Details), then permission must be granted by the Owner Manufacturer for the Submitting Manufacturer to use the Exhaust Test Number.	(TG-202.5)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR092	If the Manufacturer Code of the owner for the provided Evaporative Test Number (TG-202) is different than the Submitter's Manufacturer Code (in Submission Author Details), then permission must be granted by the Owner Manufacturer for the Submitting Manufacturer to use the Evaporative Test Number.	(TG-202)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR093	Exhaust Test Procedure Codes (TG-204.5) of '80', '81', '82', or '83' are not allowed.	(TG-204.5)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR094	Evaporative Test Procedure Codes (TG-223.5) of '80', '81', '82', or '83' are not allowed.	(TG-223.5)	Deleted	Active
Certification	Test Group	LD-CERT-TG-BR095a	If there is an evaporative family (TG-3) specified, there must be at least one evaporative/refueling standard that has an Emission Name (TG-225) of 'HC-TOTAL' and a Cert Region Code (TG-221) of 'FA' (Federal) if there are federal sales for this test group (Cert Region Code (TG-14) of 'FA' (Federal)), or a Cert Region Code (TG-221) of 'CA' if there are only California Sales for this test group.	(TG-225) (TG-225) (TG-221)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR095b	If there is an evaporative family (TG-3) specified, there must be at least one evaporative/refueling standard that has an Emission Name (TG-225) of 'HC-TOTAL' and a Cert Region Code (TG-221) of 'FA' (Federal) if there are federal sales for this test group (Cert Region Code (TG-14) of 'FA' (Federal)), or a Cert Region Code (TG-221) of 'CA' if there are only California Sales for this test group.	(TG-225) (TG-225) (TG-221)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR095c	This rule does not cause the transaction to be rejected. The 'Full Useful Life Miles: Evaporative/Refueling Emissions' field on a Certificate Of Conformity is drawn from the largest useful life (TG-223.6) of all of the evaporative/refueling standards that have an Emission Name (TG-225) of 'CO' (Carbon Monoxide). Since none of the evaporative/refueling standards in this submission match that criteria, 'N/A' will appear in the the 'Full Useful Life Miles: Evaporative/Refueling Emissions' field on the certificate issued for this test group and evaporative/refueling family combination.	(TG-223.6) (TG-225)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR096	If Transmission Type (TG-307) is equal to 'CVT' (Continuously Variable), then Number of Transmission Gears (TG-311) must equal '1'.	(TG-311)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR097	If the Exhaust Standard Test Procedure (TG-204.5) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (TG-209) of 'HC-TOTAL' is not allowed.	(TG-209)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR098	If the Evaporative Standard Test Procedure (TG-223.5) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (TG-225) of 'HC-TOTAL' is not allowed.	(TG-225)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR099	An Exhaust Standard Test Result/Emission Name (TG-209) of 'HC' is only allowed for ORVR (Test Procedure (TG-204.5) equal to 24 or 44) or Running Loss (Test Procedure (TG-204.5) equal to 32 or 37) tests.	(TG-209)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR100	An Evaporative Standard Test Result/Emission Name (TG-225) of 'HC' is only allowed for ORVR (Test Procedure (TG-223.5) equal to 24 or 44) or Running Loss (Test Procedure (TG-223.5) equal to 32 or 37) tests.	(TG-225)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR101	If the Process Code (TG-0.5) is 'C' (Correction) then there cannot be any locked and active Certificate Summary Information Reports (CSIs) which reference this Test Group Name (TG-2).	(TG-2)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR102	If the Certification Region Code (TG-200) is 'FA' (Federal) then the Exhaust Emission Standard Level (TG-201) should be a Federal Standard.	(TG-201)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR103	If the Process Code (TG-0.5) is 'N' then CSI Type (TG-4) cannot equal 'R' (Update for running change) or 'U' (Update for correction)	(TG-4)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR104	Each Evaporative Family Name (TG-3) entered must be a unique value.	(TG-3)	Not Under Development	Active
Certification	Test Group	LD-CERT-TG-BR105	If Drive Source (TG-7.1) is 'C' (Combustion Engine) and 'E' (Electric Motor), then Hybrid Indicator (TG-7.2) should be 'Y' (Yes). Otherwise, Hybrid Indicator (TG-7.2) should be 'N' (No).	(TG-7.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR106	If Drive Source (TG-7.1) equals "C" (Combustion Engine), then Fuel(s) (TG-7.3) can not equal "EL" (Electricity).	(TG-7.3)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR107	If Drive Source (TG-7.1) equals "E" (Electric Motor), Fuel(s) (TG-7.3) must equal "EL" (Electricity), "H" (Hydrogen), or "M" (Methanol).	(TG-7.3)	Added	Not in the System



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR108	If Drive Source (TG-7.1) equals "C" (Combustion Engine), then Basic Fuel Metering System (TG-7.4) is required. Otherwise it is not allowed.	(TG-7.4)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR109	If Basic Fuel Metering System (TG-7.4) equals "CMIX" (CNG Mixer Unit), "LMIX" (LPG Mixer), "CRDI" (Common Rail Direct Diesel Injection), "GFI" (Gaseous Fuel Injection), "DDI" (Direct Diesel Injection) or "IDI" (Indirect Diesel Injection), then Lean Burn Strategy Indicator (TG-7.4.1) is not allowed. Otherwise it is required.	(TG-7.4.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR110a	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and more than one fuel is selected for Fuel(s) (TG-7.3) and Model Year (TG-6) is greater than or equal to 2012, then CREE Weighting Factor for Dual/Multiple Fuel Vehicles (TG-7.5) is required for each fuel, otherwise it is not allowed.	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR110b	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and more than one fuel is selected for Fuel(s) (TG-7.3) and Model Year (TG-6) is greater than or equal to 2012, then CREE Weighting Factor for Dual/Multiple Fuel Vehicles (TG-7.5) is required for each fuel, otherwise it is not allowed.	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR110c	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and more than one fuel is selected for Fuel(s) (TG-7.3) and Model Year (TG-6) is greater than or equal to 2012, then CREE Weighting Factor for Dual/Multiple Fuel Vehicles (TG-7.5) is required for each fuel, otherwise it is not allowed.	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR111	CREE Weighting Factor for Dual/Multiple Fuel Vehicles (TG-7.5): Need to add Business Rules for which fuels the weighting factor can/must be entered for. (= 0.5 until model year 2016 if 2 fuels in test group)	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR112	All values for CREE Weighting Factor for Dual/Multiple Fuel Vehicles (TG-7.5) must sum to 1.	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR113a	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and more than one fuel is selected for Fuel(s) (TG-7.3), then Multiple Fuel Storage - Separate Or Together (TG-7.6) is required, otherwise it is not allowed.	(TG-7.6)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR113b	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and more than one fuel is selected for Fuel(s) (TG-7.3), then Multiple Fuel Storage - Separate Or Together (TG-7.6) is required, otherwise it is not allowed.	(TG-7.6)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR114	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and if more than one Fuel(s) (TG-7.3) selected is combustible (i.e., "Gasoline" (G), "Diesel" (D), "Methanol" (M), "Ethanol" (E), "Compressed Natural Gas" (CNG), "Liquified Natural Gas" (LNG), or "Liquified Petroleum Gas" (LPG)), then Multiple Fuel Combustion - Separate or Together (TG-7.7) is required. Otherwise, it is optional.	(TG-7.7)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR114b	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) and if more than one Fuel(s) (TG-7.3) selected is combustible (i.e., "Gasoline" (G), "Diesel" (D), "Methanol" (M), "Ethanol" (E), "Compressed Natural Gas" (CNG), "Liquified Natural Gas" (LNG), or "Liquified Petroleum Gas" (LPG)), then Multiple Fuel Combustion - Separate or Together (TG-7.7) is required. Otherwise, it is optional.	(TG-7.7)	Not Under Development	Inactive
Certification	Test Group	LD-CERT-TG-BR115	If Drive Source (TG-7.1) equals 'E' (Electric Motor), then Fuel Cell Indicator (TG-7.8) is required. Otherwise, it is optional.	(TG-7.8)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR116	If Drive Source (TG-7.1) equals 'E' (Electric Motor), then Rechargeable Energy Storage System Indicator (TG-7.9) is required. Otherwise, it is optional.	(TG-7.9)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR117	If Drive Source (TG-7.1) equals 'E' (Electric Motor), then Off-board Charge Capable Indicator (TG-8.3) is required. Otherwise, it is optional.	(TG-8.3)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR118	If Drive Source (TG-7.1) equals 'E' (Electric Motor) or if Hybrid Indicator (TG-7.2) equals 'Y' (Yes) or if Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes), then Rechargeable Energy Storage System (TG-77) is required. Otherwise, it is not allowed.	(TG-77)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR119	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Data set TG-26 to TG-52 (except (TG-37) ) is required; otherwise it is optional.	(TG-26) (TG-27) (TG-28) (TG-29) (TG-30) (TG-31) (TG-32) (TG-32.5) (TG-32.6) (TG-36) (TG-38) (TG-39) (TG-40) (TG-41) (TG-42) (TG-43) (TG-44) (TG-45) (TG-46) (TG-47) (TG-48) (TG-49) (TG-50) (TG-51) (TG-52)	Not Under Development	Not in the System
Certification	Test Group	LD-CERT-TG-BR120	If Hybrid Indicator (TG-7.2) equals 'Y' (Yes), then Hybrid Type (TG-26) is required. Otherwise, not allowed.	(TG-26)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR122	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then (TG-28) Engine type is required. Otherwise, it is optional.	(TG-28)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR123	If Engine Type (TG-28) equals "GT" (Gas Turbine), "RK" (Rankine), "STIR" (Stirling) or "OT" (Other), then Engine Type Description (TG-29) is required. Otherwise, it is optional.	(TG-29)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR124	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) or if Hybrid Indicator (TG-7.2) equals 'Y' (Yes) and Hybrid Type (TG-26) equals any of ('EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic)), then Engine Block Arrangement (TG-30) is required. Otherwise, it is optional.	(TG-30)	Not Under Development	Not in the System
Certification	Test Group	LD-CERT-TG-BR125	If Engine Type (TG-28) equals "4SI" (4-stroke Spark Ignition), "2SI" (2-stroke Spark Ignition), "4SCI" (4-stroke Compression Ignition), "2SCI" (2-stroke Compression Ignition), or "RT" (Rotary), then Engine Block Arrangement (TG-30) is required. Otherwise, it is optional.	(TG-30)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR126	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) or if Hybrid Indicator (TG-7.2) equals 'Y' (Yes) and Hybrid Type (TG-26) equals any of ('EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic)), then Number of Cylinders/Rotors (TG-32) is required. Otherwise, it is optional.	(TG-32)	Not Under Development	Not in the System
Certification	Test Group	LD-CERT-TG-BR127	If Engine Type (TG-28) equals "4SI" (4-stroke Spark Ignition), "2SI" (2-stroke Spark Ignition), "4SCI" (4-stroke Compression Ignition), "2SCI" (2-stroke Compression Ignition), and "RT" (Rotary), Number of Cylinders/Rotors (TG-32) is required. Otherwise, it is optional.	(TG-32)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR128	If Drive Source (TG-7.1) equals 'C' (Combustion Engine) or if Hybrid Indicator (TG-7.2) equals 'Y' (Yes) and Hybrid Type (TG-26) equals any of ('EM' (IC Engine/Electric Motor) or 'EH' (IC Engine/Hydraulic)), then Total Number Of After Treatment Devices (ATDs) (TG-53) is required. Otherwise, it is not allowed.	(TG-53)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR129	If Drive Source (TG-7.1) equals 'E' (Electric Motor) or if Hybrid Indicator (TG-7.2) equals 'Y' (Yes) or if Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes), then Rechargeable Energy Storage System (TG-77) is required. Otherwise, it is not allowed.	(TG-77)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR130	If Rechargeable Energy Storage System (TG-77) equals "Other", Rechargeable Energy Storage Device if Other (TG-78) is required. Otherwise optional.	(TG-78)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR131	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), Battery Type (TG-79) is required. Otherwise not allowed.	(TG-79)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR132	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), and Battery Type (TG-79) equals "Other", then Battery Type, if "Other" (TG-80) is required. Otherwise, it is not allowed.	(TG-80)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR133	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), then Number of Battery Packs (not cells) (TG-81) is required; otherwise, it is optional.	(TG-81)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR134	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), then Total Voltage of Battery Pack(s) (TG-82) is required; otherwise, it is optional.	(TG-82)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR135	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), then Battery Energy Capacity (TG-83) is required; otherwise, it is optional.	(TG-83)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR136	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), then Battery Specific Energy (TG-84) is required; otherwise, it is optional.	(TG-84)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR137	If Rechargeable Energy Storage System (TG-77) equals 'B' (Battery(s)), then Battery Charger Type (TG-85) is required; otherwise, it is optional.	(TG-85)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR138	If Rechargeable Energy Storage System (TG-77) equals 'C' (Capacitor), then Number of Capacitors (TG-86) is required; otherwise, it is optional.	(TG-86)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR139	If Rechargeable Energy Storage System (TG-77) equals 'C' (Capacitor), then Capacitor Rating In Farads (TG-87) is required; otherwise, it is not allowed.	(TG-87)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR140a	If Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes), then Fuel Cell Description (TG-98) is required; otherwise, it is not allowed.	(TG-98)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR140b	If Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes), then Fuel Cell Description (TG-98) is required; otherwise, it is not allowed.	(TG-98)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR141a	If Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes) and Fuel(s)(TG.7.3) equals 'H' (Hydrogen), then Fuel Cell On-Board H2 Storage Capacity (TG-99) is required, otherwise it is not allowed.	(TG-99)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR141b	If Fuel Cell Indicator (TG-7.8) equals 'Y' (Yes) and Fuel(s)(TG.7.3) equals 'H' (Hydrogen), then Fuel Cell On-Board H2 Storage Capacity (TG-99) is required, otherwise it is not allowed.	(TG-99)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR143	Official FTP Test Number (TG-217) must exist in Verify.	(TG-217)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR144	The Test 5-Cycle Category (TI-45) of the test entered in Official FTP Test Number (TG-217) must equal 'FTP75'.	(TG-217)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR145	Official FTP Test Number (TG-217): If Hybrid Indicator (TG-7.2) = 'Yes', then Official FTP Test Number (TG-217) cannot be a 3-bag emission test (Associated Test Result/Emission Name (TI-19) of "FE Bag 3" present and "FE Bag 4" not present).	(TG-217)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR146	Official SC03 Test Number (TG-219) must exist in Verify.	(TG-219)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR147	The Test 5-Cycle Category (TI-45) of the test entered in Official SC03 Test Number (TG-219) must equal 'SC03'.	(TG-219)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR148	Official Cold CO Test Number must exist in Verify.	(TG-219.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR149	The Test 5-Cycle Category (TI-45) of the test entered in Official Cold CO Test Number (TG-219.1) must equal 'FTP20'.	(TG-219.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR150	Official Highway Test Number (TG-219.2) must exist in Verify.	(TG-219.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR151	The Test 5-Cycle Category (TI-45) of the test entered in Official Highway Test Number (TG-219.2) must equal 'HWY'.	(TG-219.2)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR152	EPA City Litmus Value (TG-219.3.1) : If Official FTP Test Number (TG-217) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official Highway Test Number (TG-219.2) has Test Result/Emission Name (TI-19) equal to "MFR FE" and Official US06 Test Number (TG-218) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", and "FE BAG 2" and Official Cold CO Test Number (TG-219.1) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official SC03 Test Number (TG-219) has Test Result/Emission Name (TI-19) equal to "MFR FE" then EPA City Litmus Threshold (TG-219.3.2) is required; otherwise, it is not allowed.	(TG-219.3.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR153	EPA City Litmus Threshold (TG-219.3.2) : If Official FTP Test Number (TG-217) has associated Test Result/Emission Name (TI-19) equal to "MFR FE", then EPA City Litmus Threshold (TG-219.3.2) is required; otherwise, it is not allowed.	(TG-219.3.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR154	EPA Highway Litmus Value (TG-219.4.1) : If Official FTP Test Number (TG-217) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official Highway Test Number (TG-219.2) has Test Result/Emission Name (TI-19) equal to "MFR FE" and Official US06 Test Number (TG-218) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", and "FE BAG 2" and Official Cold CO Test Number (TG-219.1) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official SC03 Test Number (TG-219) has Test Result/Emission Name (TI-19) equal to "MFR FE" then EPA City Litmus Threshold (TG-219.3.2) is required; otherwise, it is not allowed.	(TG-219.3.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR155	EPA Highway Litmus Threshold (TG-219.4.2) : If Official Highway Test Number (TG-219.2) has associated Test Result/Emission Name (TI-19) equal to "MFR FE", then EPA Highway Litmus Threshold (TG-219.4.2) is required; otherwise, it is not allowed.	(TG-219.4.2)	Added	Not in the System
Certification Test Data	Test Group	LD-CERT-TG-BR156	Official US06 Test Number (TG-218) must exist in Verify.	(TG-218)	Added	Not in the System
Certification Test Data	Test Group	LD-CERT-TG-BR157	The Test 5-Cycle Category (TI-45) of the test entered in Official US06 Test Number (TG-218) must equal 'US06'.	(TG-218)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR158	Each Fuel(s) (TG-7.3) selected for Drive Source, must also be selected exactly once for Fuel(s) (TG-217.1) for Greenhouse Gas Official Test Numbers. (Fuel <value> was selected for Drive Source but not for Greenhouse Gas Official Test Numbers.)	(TG-7.3) (TG-217.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR158	For each selected Fuel(s) (TG-7.3), exactly one identical selection must exist for Test Group Fuel (TG-217.1).	(TG-217.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR159	For each selected Test Group Fuel (TG-217.1), at least one identical selection must exist for Fuel(s) (TG-7.3).	(TG-7.3)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR159	Any given Fuel(s) (TG-217.1) for Greenhouse Gas Official Test Numbers may only be selected once per Test Group (TG-2).	(TG-217.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR160	Each Test Group Fuel(s) (TG-217.1) selected for Official Test Numbers, must also be selected at least once for Fuel(s) (TG-7.3) for Drive Source. (Fuel <value> was selected for Official Test Numbers but not for Drive Source.)	(TG-7.3) (TG-217.1)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification Test Data	Test Group	LD-CERT-TG-BR161	The following values for Test Result/Emission Name (TG-225) within the Evaporative and Refueling Emission Standards section are not valid: 'AMP-HRS' (Integrated Amp-hours), 'START-SOC' (System Start State of Charge Watt-hours), 'END-SOC' (System End State of Charge Watt-hours), 'ACT-DISTANCE' (Actual Distance Driven (miles)), or 'AS-VOLT' (Average System Voltage).	(TG-225)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR162	If Drive Source (TG-7.1) only equals 'C' (Combustion Engine) and one of the selected values for Fuel(s) (TG-7.3) for that Drive Source equals 'Hyd' (Hydraulic), then Hybrid Indicator (TG-7.2) equals 'Yes'; otherwise, Hybrid Indicator (TG-7.2) should be 'N' (No).	(TG-7.2)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR163	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Camless Valvetrain Indicator (TG-32.5) is required; otherwise, it is not allowed.	(TG-32.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR164	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Oil Viscosity/Classification (TG-32.6) is required; otherwise, it is not allowed.	(TG-32.6)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR165a	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Engine Rated Horsepower (TG-37) is required; otherwise it is not allowed.	(TG-37)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR165b	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Engine Rated Horsepower (TG-37) is required; otherwise it is not allowed.	(TG-37)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR166	If Total Number of After Treatment Devices (ATDs) (TG-53) is not equal to '0', then ATD Number (TG-55) and ATD Type (TG-56) is required; otherwise not allowed.	(TG-55) (TG-56)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR167	If ATD Type (TG-56) is not ('DPF' (Diesel Particulate Filter) or 'SCR' (Selective Catalytic Reduction)), then ATD Precious Metal Type (TG-57) is required; otherwise, it is optional.	(TG-57)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR168	If ATD Precious Metal Type (TG-57) is not 'OT' (Other), then Substrate Material (TG-59) and Substrate Construction (TG-60) is required; otherwise, they are optional.	(TG-59) (TG-60)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR169	If Drive Source (TG-7.1) is not 'C' (Combustion Engine), then all of the following data elements are not allowed: Number of Air/Fuel Sensors (TG-61), Air/Fuel Sensor Number (TG-62), Air/Fuel Sensor Type (TG-63), Air/Fuel Sensor Type if Other (TG-64), Number of Knock Sensors (TG-65) and Sensor Comments (TG-66).	(TG-61) (TG-62) (TG-63) (TG-64) (TG-65) (TG-66)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR170a	If Drive Source (TG-7.1) is equal to 'C' (Combustion Engine), then Number of Air/Fuel Sensors (TG-61) is required. Otherwise, it is not allowed.	(TG-61)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR170b	If Drive Source (TG-7.1) is equal to 'C' (Combustion Engine), then Number of Air/Fuel Sensors (TG-61) is required. Otherwise, it is not allowed.	(TG-61)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR171	If Number of Air/Fuel Sensors (TG-61) is not equal to '0', then all of the following data elements should be required: Air/Fuel Sensor Number (TG-62), Air/Fuel Sensor Type (TG-63); otherwise, they are not allowed.	(TG-62) (TG-63)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR172	If Model Year (TG-6) is greater than or equal to '2012', then GHG Exempt Status (TG-216.7) is required. Otherwise, it is not allowed.	(TG-216.7)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR173a	If the model year is greater than or equal to 2012, then at least one of the following data elements is required: Manufacturer-calculated Combined Test Group CREE Certification Level (TG-8.4), Manufacturer-calculated Combined Test Group Opt-CREE Certification Level (TG-8.4.1); otherwise, it is not allowed.	(TG-8.4) (TG-8.4.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR173b	If the model year is greater than or equal to 2012, then at least one of the following data elements is required: Manufacturer-calculated Combined Test Group CREE Certification Level (TG-8.4), Manufacturer-calculated Combined Test Group Opt-CREE Certification Level (TG-8.4.1); otherwise, it is not allowed.	(TG-8.4) (TG-8.4.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR174a	If Drive Source (TG-7.1) is equal to 'C' (Combustion Engine), then Number of Knock Sensors (TG-65) should be required; otherwise, it is not allowed.	(TG-65)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR174b	If Drive Source (TG-7.1) is equal to 'C' (Combustion Engine), then Number of Knock Sensors (TG-65) should be required; otherwise, it is not allowed.	(TG-65)	Added	Not in the System
Certification Test Data	Test Group	LD-CERT-TG-BR176	LD-CERT-TG-BR176 - The following values for Test Result/Emission Name (TG-209) within the Exhaust Emission Standards section are not valid: 'AMP-HRS' (Integrated Amp-hours), 'START-SOC' (System Start State of Charge Watt-hours), 'END-SOC' (System End State of Charge Watt-hours), 'ACT-DISTANCE' (Actual Distance Driven (miles)), or 'AS-VOLT' (Average System Voltage).	(TG-209)	Added	Not in the System
Certification Test Data	Test Group	LD-CERT-TG-BR177	When requesting a CSI Report the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (TG-1) of the engine family for which the report was requested.	(TG-1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR178	If Air Aspiration Method (TG-47) is not equal to 'NA' (Naturally Aspirated), then Air Aspiration Device Configuration (TG-49) is required.	(TG-49)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR179	If Air Aspiration Method (TG-47) is not equal to 'NA' (Naturally Aspirated), then Number of Air Aspiration Devices (TG-48) and Air Aspiration Device Configuration (TG-49) are required.	(TG-48) (TG-49)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR180	If Hybrid Type (TG-26) is equal to 'EH' (IC Engine/Hydraulic), then Hydraulic System Description (TG-89) is required; otherwise, it is optional.	(TG-89)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR181	LD-CERT-TG-BR181 - The Number Of After Treatment Devices (ATDs) (TG-53)(" + \$n + ") and the number of ATD data sets submitted (" + \$s + ") must be equal.;	(TG-53)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR182	LD-CERT-TG-BR182 - The Number of Air/Fuel Sensors (TG-61) (" + \$n + ") and the number of Air/Fuel Sensor Types submitted (" + \$s + ") must be equal.	(TG-61)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-BR183	If Official FTP Test Number (TG-217) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official Highway Test Number (TG-219.2) has Test Result/Emission Name (TI-19) equal to "MFR FE" and Official US06 Test Number (TG-218) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", and "FE BAG 2" and Official Cold CO Test Number (TG-219.1) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official SC03 Test Number (TG-219) has Test Result/Emission Name (TI-19) equal to "MFR FE" then EPA Highway Litmus Value (TG-219.4.1) is required, otherwise not allowed.	(TG-219.3.1)	Added	Not in the System



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-BR183	If Official FTP Test Number (TG-217) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official Highway Test Number (TG-219.2) has Test Result/Emission Name (TI-19) equal to "MFR FE" and Official US06 Test Number (TG-218) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", and "FE BAG 2" and Official Cold CO Test Number (TG-219.1) has Test Result/Emission Name (TI-19) equal to "FE BAG 1", "FE BAG 2", and "FE BAG 3" and Official SC03 Test Number (TG-219) has Test Result/Emission Name (TI-19) equal to "MFR FE" then EPA Highway Litmus Value (TG-219.4.1) is required, otherwise not allowed.	(TG-219.4.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-GBR001	LD-CERT-TG-GBR001 - If no Drive Source (TG-7.1) equals 'C' (Combustion Engine) then Number of After Treatment Devices (TG-53), ATD Comments (TG-54), ATD Number (TG-55), ATD Type (TG-56), ATD Precious Metal Type (TG-57), ATD Precious Metal Type Other Description (TG-58), Substrate Material (TG-59), Substrate Construction (TG-60), Direct Ozone Reduction Device (TG-74), DOR Device Other Description (TG-75), Emission Control Device Comments (TG-76)) and Substrate Construction Other Description (TG-102) are not allowed.	(TG-53) (TG-54) (TG-55) (TG-56) (TG-57) (TG-58) (TG-59) (TG-60) (TG-74) (TG-75) (TG-76) (TG-102)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-GBR002	LD-CERT-TG-GBR002 - If no Drive Source (TG-7.1) equals 'C' (Combustion Engine) then Hybrid Type (TG-26), Hybrid Type Description if Other (TG-27), Engine Type (TG-28), Engine Type Description (TG-29), Engine Block Arrangement (TG-30), Engine Block Arrangement Description if Other (TG-31), Number of Cylinders/Rotors (TG-32), Camless Valvetrain Indicator (TG-32.5), Oil Viscosity/Classification (TG-32.6), Engine Configuration Number (TG-36), Engine Rated Horsepower (TG-37), Engine Displacement (TG-38), Cylinder Deactivation (TG-39), Cylinder Deactivation Description (TG-40), Variable Valve Timing (TG-41), Variable Valve Timing System Description (TG-42), Variable Valve Lift (TG-43), Variable Valve Lift System Description (TG-44), Number of Inlet Valves per Cylinder (TG-45), Number of Exhaust Valves Per Cylinder (TG-46), Air Aspiration Method (TG-47), Number of Air Aspiration Devices (TG-48), Air Aspiration Device Configuration (TG-49), Air Aspiration Method Other (TG-50), Charge Air Cooler Type (TG-51), Engine Configuration Comments (TG-52), Number Air Fuel Sensors (TG-61), Air/Fuel Sensor Number (TG-62), Air Fuel Sensor Type (TG-63), Air Fuel Sensor Type Other (TG-64), Number Knock Sensors (TG-65), Sensor Comments (TG-66), Exhaust Gas Recirculation (TG-67), Cooled Exhaust Gas	(TG-26) (TG-27) (TG-28) (TG-29) (TG-30) (TG-31) (TG-32) (TG-32.5) (TG-32.6) (TG-36) (TG-37) (TG-38) (TG-39) (TG-40) (TG-41) (TG-42) (TG-43) (TG-44) (TG-45) (TG-46) (TG-47) (TG-48) (TG-49) (TG-50) (TG-51) (TG-52) (TG-61) (TG-62) (TG-63) (TG-64) et al.	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Test Group	LD-CERT-TG-GBR003	LD-CERT-TG-GBR003 - If no Drive Source (TG-7.1) equals 'E' (Electric Motor) then Energy Storage Device (TG-77), Rechargeable Energy Storage Device Other Description (TG-78), Battery Type (TG-79), Other Battery Type Description (TG-80), Number of Batteries (TG-81), Total Voltage of Battery Packs (TG-82), Battery Energy Capacity (TG-83), Battery Specific Energy (TG-84), Battery Charger Type (TG-85), Number of Capacitors (TG-86), Capacitor Rating (TG-87), Capacitor Comments (TG-88), Hydraulic System Description (TG-89), Regenerative Braking Type (TG-90), Regenerative Braking Type Other Description (TG-91), Regenerative Braking Source (TG-92), Driver Controlled Regenerative Braking (TG-93), Number of Drive Motor Generators (TG-94), Motor Generator Type (TG-95), Other Motor Generator Type Other Description (TG-96), Rated Motor Generator Power (TG-97), Fuel Cell Description (TG-98), Fuel Cell On board H2 Storage Capacity (TG-99), Usable H2 Fill Capacity (TG-100) and HEV EV Comments (TG-101) are not allowed.	(TG-77) (TG-78) (TG-79) (TG-80) (TG-81) (TG-82) (TG-83) (TG-84) (TG-85) (TG-86) (TG-87) (TG-88) (TG-89) (TG-90) (TG-91) (TG-92) (TG-93) (TG-94) (TG-95) (TG-96) (TG-97) (TG-98) (TG-99) (TG-100) (TG-101)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR001	The selected value for Drive Source (TG-7.1) is not a valid value.	(TG-7.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR002a	The selected value for Fuel(s) (TG-7.3) is not a valid value.	(TG-7.3)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR002b	The selected value for Fuel(s) (TG-217.1) is not a valid value.	(TG-217.1)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR002c	The selected value for Fuel(s) (TG-204) is not a valid value.	(TG-204)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR002d	The selected value for Fuel(s) (TG-223) is not a valid value.	(TG-223)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR003	The selected value for Basic fuel metering system (TG-7.4) is not a valid value.	(TG-7.4)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR004	The selected value for GHG Exempt Status (TG-216.7) is not a valid value.	(TG-216.7)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR005	The maximum allowable value for CREE Weighting Factor For Dual/Multiple Fuel Vehicles (TG-7.5) is 1.0.	(TG-7.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR006	The maximum allowable value for Durability Group Equivalency Factor (TG-13) is 5.0.	(TG-13)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR007	Each Fuel(s) (TG-7.3) may only be selected once per Drive Source (TG-7.1).	(TG-7.3)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR010	The selected value for Test Result (TG-209) for Exhaust Emissions Standards is not a valid value. (Test Result: <value>)	(TG-209)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR011	The selected value for Test Result (TG-225) for Evaporative Emissions Standards is not a valid value. (Test Result: <value>)	(TG-225)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR012	The selected value for Test Procedure (TG-204.5) for Exhaust Emissions Standards is not a valid value. (Test Procedure: <value>)	(TG-204.5)	Added	Not in the System
Certification	Test Group	LD-CERT-TG-IBR013	The selected value for Test Procedure (TG-223.5) for Evaporative Emissions Standards is not a valid value. (Test Procedure: <value>)	(TG-223.5)	Added	Not in the System
Certification	Certificate Request	LD-CERT-CR-BR001	If Process Code (CR-0.5) is not equal to 'I' (Update Commerce Introduction Date), then a Test Group record must exist in the system for the same Test Group (CR-4) and Evaporative/Refueling Family Name (CR-5) and Model Year (CR-3).	(CR-4) (CR-5) (CR-3)	Updated	Active
Certification	Certificate Request	LD-CERT-CR-BR002	If Process Code (CR-0.5) is equal to 'I' (Update Commerce Introduction Date), then a Test Group record must exist in the system for the same Test Group (CR-4) and Model Year (CR-3).	(CR-4) (CR-3)	Not Under Development	Active



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Certificate Request	LD-CERT-CR-BR011	If Process Code (CR-0.5) is equal to 'I' (Update Commerce Introduction Date) then Commerce Introduction Date (CR-7) is required.	(CR-7)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR012	If Process Code (CR-0.5) is equal to 'N' (New) or 'L' (Lock) then Commerce Introduction Date (CR-7), Meet All Applicable Standards Indicator (CR-9), Meet All Applicable Requirements Indicator (CR-10), OBD System Approval Indicator (CR-11), CARB Executive Order Issued Indicator (CR-12), ORVR System Approval Indicator (CR-14), Compliance Fee Paid Indicator (CR-15), No Defeat Device Indicator (CR-16), CAP2000 Conditional Certificate (CR-17), ICI Certificate Indicator (CR-18), and Alternate Fuel Converter Indicator (CR-19) are required.	(CR-7) (CR-9) (CR-10) (CR-11) (CR-12) (CR-14) (CR-15) (CR-16) (CR-17) (CR-18) (CR-19)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR013	If Process Code (CR-0.5) is not equal to 'U' (Unlock) or 'L' (Lock), then Lock/Unlock Comment (CR-20) is not allowed.	(CR-20)	Updated	Active
Certification	Certificate Request	LD-CERT-CR-BR014	If Process Code (CR-0.5) is equal to 'L' (Lock) then New Certificate Needed (CR-21) is required.	(CR-21)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR015	If CARB Executive Order Issued Indicator (CR-12) is equal to 'Y' (Yes) then CARB Executive Order Number (CR-13) is required.	(CR-13)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR016	There cannot be a pending certificate request for this Test Group (CR-2) and Evaporative/Refueling Family (CR-3) in the system. The certificate must either be issued or denied before a new certificate request with CR-0.5 (Process Code) equal to 'N' (New) can be submitted.	(CR-2) (CR-3)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR017	This Test Group (CR-2) and Evaporative/Refueling Family (CR-3) combination has been marked as VOID. No new certificate requests with a Process Code (CR-0.5) of 'N' or a Revised Certificate Needed (CR-21) of 'Y' will be accepted.	(CR-0.5) (CR-21)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR018	This rule does not cause the transaction to be rejected. However, this certificate request has been denied since at least one of Meet All Applicable Standards Indicator (CR-9), Meet All Applicable Requirements Indicator (CR-10), OBD System Approval Indicator (CR-11), CARB Executive Order Issued Indicator (CR-12), ORVR System Approval Indicator (CR-14), Compliance Fee Paid Indicator (CR-15), or No Defeat Device Indicator (CR-16) is equal to 'N' (No).	(CR-9) (CR-10) (CR-11) (CR-12)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR019	When requesting a Certificate Request report (CR-0.5 (Process Code) equals 'R' (Report)), a Certificate Request record must exist with the same Test Group (CR-2), Evaporative / Refueling Family (CR-5), Model Year (CR-3), and Manufacturer Code (CR-1).	(CR-0.5) (CR-1) (CR-3)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR020a	Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CR-1) of the submitted dataset.	(CR-1)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR020b	Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CR-1) of the submitted dataset.	(CR-1)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR020c	Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CR-1) of the submitted dataset.	(CR-1)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR021	The CSI report for this Test Group (CR-4) and Evaporative/Refueling Family (CR-5) combination shows failed tests.	(CR-4) (CR-5)	Not Under Development	Active
Certification	Certificate Request	LD-CERT-CR-BR022	An Application for Certification document must have been submitted for this Test Group.	(CR-4)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Certification	Certificate Request	LD-CERT-CR-BR023	If Process Code (CR-0.5) is equal 'I' (Update Commerce Introduction Date) correction and the Test Group (CR-2) is associated with more than one Evaporative Family (CR-5), the Evaporative Family (CR-5) is required	(CR-5)	Not Under Development	Inactive
Certification	Certificate Request	LD-CERT-CR-BR024	If Process Code (CR-0.5) is equal to 'N' (New) or 'L' (Lock) and Model Year (CR-3) is 2012 or later then GHG Pre-Model Year Report Indicator (CR-22) is required, otherwise not allowed	(CR-22)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR001a	If Process Code (GL-0.5) equals 'R' (Report) or 'C' (Correction), then a record must already exist in the system with the same Model Type Index (GL-1), Manufacturer Code (GL-2), and Model Year (GL-3).	(GL-1) (GL-2) (GL-3)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR001b	If Process Code (GL-0.5) equals 'R' (Report) or 'C' (Correction), then a record must already exist in the system with the same Model Type Index (GL-1), Manufacturer Code (GL-2), and Model Year (GL-3).	(GL-1) (GL-2) (GL-3)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR002	If Process Code (GL-0.5) equals 'N' (New), then a record must not exist in the system with the same Model Type Index (GL-1), Manufacturer Code (GL-2), and Model Year (GL-3).	(GL-1) (GL-2) (GL-3)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR003	If the Manufacturer Code (GL-10) of the owner of the carline is different than the Submitter's Manufacturer Code (in Submission Author Details), then permission must be granted by the Owner Manufacturer for the Submitting Manufacturer to use the carline.	(GL-10)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR004	The combination of Model Year (GL-3), Carline Manufacturer Code (GL-10), Division Code (GL-11) and Carline Code (GL-12) must exist in the system as a certified model.	(GL-3) (GL-10) (GL-11) (GL-12)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR005	If Process Code (GL-0.5) is equal to 'C' (Correction), then Manufacturer FE Label Comments (GL-4) is required; otherwise, it is optional.	(GL-4)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR006	The combination of Test Group (GL-13.5) and Engine Configuration (GL-25), if provided, must exist in the system as Test Group Information.	(GL-13.5) (GL-25)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR007	If Transmission Type (GL-67) is equal to 'OT' (Other), then Transmission Type If Other (GL-68) is required.	(GL-68)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR008	Shift Indicator Light (GL-74) can only be equal to 'Y' (Yes) when Transmission Type (GL-67) is equal to 'M' (Manual), 'AM' (Automated Manual) or 'OT' (Other).	(GL-74)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR009	If Fuel Economy Label Calculation Approach (GL-79) is equal to 'EV' (Electric Vehicle label), then Drive Source (TG-7) must equal 'E' (Electric motor).	(TG-7)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR010	If Drive Source (TG-7) is equal to 'H' (Hybrid) and Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle Label), then 5-Cycle Hybrid Calculation Approach (GL-80) is required.	(GL-80)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR011	If Process Code (GL-0.5) is equal to 'N' (New), then Label Recalculation (GL-87) must equal 'N' (No), if present.	(GL-87)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR012	If Process Code (GL-0.5) is equal to 'C' (Correction), then Label Recalculation (GL-87) is required.	(GL-87)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR013	If Process Code (GL-0.5) is equal to 'N' (New), then Re-label (GL-88) must not be present.	(GL-88)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR014	If Label Recalculation (GL-87) is equal to 'Y' (Yes), then Re-label (GL-88) is required; otherwise, it must not be present.	(GL-88)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR015	Only one Fuel Usage (GL-89) can begin with 'G' (for Gasoline).	(GL-89)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR016	Only one Fuel Usage (GL-89) can begin with 'D' (for Diesel).	(GL-89)	Not Under Development	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR017	If Fuel Usage (GL-89) is equal to 'BE' (Battery Electric) or 'PE' (Plug-in Electric), then the Fuel Economy Value Unit (GL-90) must be equal to 'KW-HR100' (kilowatt-hour per 100 miles).	(GL-90)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR018	If Fuel Usage (GL-89) is equal to 'H' (Hydrogen), then the Fuel Economy Value Unit (GL-90) must be equal to 'MPK' (miles per kilogram).	(GL-90)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR019a	If Fuel Usage (GL-89) is not equal to 'BE' (Battery Electric) or 'PE' (Plug-in Electric), then Manufacturer Unrounded Unadjusted Model Type City FE Value (GL-91), Manufacturer Unrounded Unadjusted Model Type Highway FE Value (GL-92), and Manufacturer Unrounded Unadjusted Model Type Combined FE Value (GL-93) are required.	(GL-91) (GL-92) (GL-93)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR019b	If Fuel Usage (GL-89) is not equal to 'BE' (Battery Electric) or 'PE' (Plug-in Electric), then Manufacturer Unrounded Unadjusted Model Type City FE Value (GL-91), Manufacturer Unrounded Unadjusted Model Type Highway FE Value (GL-92), and Manufacturer Unrounded Unadjusted Model Type Combined FE Value (GL-93) are required.	(GL-91) (GL-92) (GL-93)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR020a	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Manufacturer 5-Cycle Unrounded Adjusted Model Type City FE Value (GL-94), Mfr 5-Cycle Unrounded Adjusted Model Type Highway FE Value (GL-95), and Manufacturer 5-Cycle Unrounded Adjusted Model Type Combined FE Value (GL-96) are required; otherwise, they must not be present.	(GL-94) (GL-95) (GL-96)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR020b	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Manufacturer 5-Cycle Unrounded Adjusted Model Type City FE Value (GL-94), Mfr 5-Cycle Unrounded Adjusted Model Type Highway FE Value (GL-95), and Manufacturer 5-Cycle Unrounded Adjusted Model Type Combined FE Value (GL-96) are required; otherwise, they must not be present.	(GL-94) (GL-95) (GL-96)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR020c	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Manufacturer 5-Cycle Unrounded Adjusted Model Type City FE Value (GL-94), Mfr 5-Cycle Unrounded Adjusted Model Type Highway FE Value (GL-95), and Manufacturer 5-Cycle Unrounded Adjusted Model Type Combined FE Value (GL-96) are required; otherwise, they must not be present.	(GL-94) (GL-95) (GL-96)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR021a	If Vehicle Fuel Category (TG-8) is not equal to 'EV' (Battery-Electric), then Manufacturer Calculated Rounded Adjusted Model Type City FE Value (GL-97), Manufacturer Calculated Rounded Adjusted Model Type Highway FE Value (GL-98) and Mfr Calculated Rounded Adjusted Model Type Combined FE Value (GL-99) are required.	(GL-97) (GL-98) (GL-99)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR021b	If Vehicle Fuel Category (TG-8) is not equal to 'EV' (Battery-Electric), then Manufacturer Calculated Rounded Adjusted Model Type City FE Value (GL-97), Manufacturer Calculated Rounded Adjusted Model Type Highway FE Value (GL-98) and Mfr Calculated Rounded Adjusted Model Type Combined FE Value (GL-99) are required.	(GL-97) (GL-98) (GL-99)	Deleted	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR022a	If Manufacturer Voluntary Lower MPG Label (GL-85) is equal to 'Y' (Yes), then Manufacturer Voluntary Lower City FE Label Value (GL-100) or Manufacturer Voluntary Lower Highway FE Label Value (GL-101) is required; otherwise, neither should be present.	(GL-100) (GL-101)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR022b	If Manufacturer Voluntary Lower MPG Label (GL-85) is equal to 'Y' (Yes), then Manufacturer Voluntary Lower City FE Label Value (GL-100) or Manufacturer Voluntary Lower Highway FE Label Value (GL-101) is required; otherwise, neither should be present.	(GL-100) (GL-101)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR022c	If Manufacturer Voluntary Lower MPG Label (GL-85) is equal to 'Y' (Yes), then Manufacturer Voluntary Lower City FE Label Value (GL-100) or Manufacturer Voluntary Lower Highway FE Label Value (GL-101) is required; otherwise, neither should be present.	(GL-100) (GL-101)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR023	If present, Manufacturer Voluntary Lower City FE Label Value (GL-100) must be less than Manufacturer Calculated Rounded Adjusted Model Type City FE Value (GL-97).	(GL-97) (GL-100)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR024	If present, Mfr Voluntary Lower Highway FE Label Value (GL-101) must be less than Mfr Calculated Rounded Adjusted Model Type Highway FE Value (GL-98).	(GL-98) (GL-101)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR025a	If Manufacturer Voluntary Lower MPG Label (GL-85) is equal to 'Y' (Yes), then Manufacturer Voluntary Lower Combined FE Label Value (GL-102) is required.	(GL-102)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR025b	If Manufacturer Voluntary Lower MPG Label (GL-85) is equal to 'Y' (Yes), then Manufacturer Voluntary Lower Combined FE Label Value (GL-102) is required.	(GL-102)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR026a	If Vehicle Fuel Category (TG-8) is not equal to 'EV' (Battery-Electric), then Manufacturer City Label MPG Lower Range (GL-168), Manufacturer City Label MPG Upper Range (GL-169), Manufacturer Highway Label MPG Lower Range (GL-170), and Manufacturer Highway Label MPG Upper Range (GL-171) are required.	(GL-168) (GL-169) (GL-170) (GL-171)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR026b	If Vehicle Fuel Category (TG-8) is not equal to 'EV' (Battery-Electric), then Manufacturer City Label MPG Lower Range (GL-168), Manufacturer City Label MPG Upper Range (GL-169), Manufacturer Highway Label MPG Lower Range (GL-170), and Manufacturer Highway Label MPG Upper Range (GL-171) are required.	(GL-168) (GL-169) (GL-170) (GL-171)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR027	If Vehicle Fuel Category (TG-8) is equal to 'DF' (Dual Fuel (2 separate fuel tanks, separate combustion)) or 'BF' (Bi-Fuel (2 separate fuel tanks combusted together)), then Model Type Driving Range (GL-103) is required.	(GL-103)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR028	If Vehicle Fuel Category (TG-8) is equal to 'SF' (Single Fuel) and the first character of Fuel Usage (GL-89) is not equal to 'G' (for Gasoline) or 'D' (for Diesel), then Model Type Driving Range (GL-103) is required.	(GL-103)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR029	If Fuel Usage (GL-89) is equal to 'E' (Ethanol) or one of the Fuel Usage Types that begins with 'G' (Gasoline), then Maximum Ethanol Percentage (GL-104) is required; otherwise, it is not allowed.	(GL-104)	Updated	Active
Fuel Economy	FE Label	LD-FE-GL-BR030	If Fuel Usage (GL-89) is equal to 'DU' (Diesel, ultra low sulfur (15 ppm maximum)), then Maximum Bio-diesel Percentage (GL-105) is required; otherwise, it is not allowed.	(GL-105)	Updated	Active

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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR031	If Class Code (CL-5) is greater than or equal to '10' (indicating it is not a passenger car or station wagon), then Model Type Footprint Description (GL-106.5), Wheel Base (GL-106.6), Front Track Width (GL-106.7), and Rear Track Width (GL-106.8) are required; otherwise, they are optional.	(GL-106.5) (GL-106.6) (GL-106.7) (GL-106.8)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR032a	If Fuel Usage (GL-89) is not equal to 'BE' (Battery Electric), then Manufacturer Unrounded Unadjusted Base Level City FE Value (GL-111), Manufacturer Unrounded Unadjusted Base Level Highway FE Value (GL-112), and Mfr Unrounded Unadjusted Base Level Combined FE Value (GL-113) are required.	(GL-111) (GL-112) (GL-113)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR032b	If Fuel Usage (GL-89) is not equal to 'BE' (Battery Electric), then Manufacturer Unrounded Unadjusted Base Level City FE Value (GL-111), Manufacturer Unrounded Unadjusted Base Level Highway FE Value (GL-112), and Mfr Unrounded Unadjusted Base Level Combined FE Value (GL-113) are required.	(GL-111) (GL-112) (GL-113)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR033a	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Mfr 5-Cycle Unrounded Adjusted Base Level City FE Value (GL-114), Mfr 5-Cycle Unrounded Adjusted Base Level Highway FE Value (GL-115), and Mfr 5-Cycle Unrounded Adjusted Base Level Combined FE Value (GL-116) are required; otherwise, they must not be present.	(GL-114) (GL-115) (GL-116)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR033b	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Mfr 5-Cycle Unrounded Adjusted Base Level City FE Value (GL-114), Mfr 5-Cycle Unrounded Adjusted Base Level Highway FE Value (GL-115), and Mfr 5-Cycle Unrounded Adjusted Base Level Combined FE Value (GL-116) are required; otherwise, they must not be present.	(GL-114) (GL-115) (GL-116)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR033c	If Fuel Economy Label Calculation Approach (GL-79) is not equal to '5C-DRV' (Derived 5-cycle label) or 'EV' (Electric Vehicle label), then Mfr 5-Cycle Unrounded Adjusted Base Level City FE Value (GL-114), Mfr 5-Cycle Unrounded Adjusted Base Level Highway FE Value (GL-115), and Mfr 5-Cycle Unrounded Adjusted Base Level Combined FE Value (GL-116) are required; otherwise, they must not be present.	(GL-114) (GL-115) (GL-116)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR034	Test Group (GL-126) must exist in the system.	(GL-126)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR035	Test Number (GL-127) must exist in Test Information (TI-1).	(GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR036a	If Sub configuration Index (GL-121) is '1' to '49' and Configuration Index (GL-117) is '1' to '499', which indicates that the subconfiguration is represented by a tested vehicle, then Test Number (GL-127) is required; otherwise, it must not be present.	(GL-117) (GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR036b	If Sub configuration Index (GL-121) is '1' to '49' and Configuration Index (GL-117) is '1' to '499', which indicates that the subconfiguration is represented by a tested vehicle, then Test Number (GL-127) is required; otherwise, it must not be present.	(GL-117) (GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR036c	If Sub configuration Index (GL-121) is '1' to '49' and Configuration Index (GL-117) is '1' to '499', which indicates that the subconfiguration is represented by a tested vehicle, then Test Number (GL-127) is required; otherwise, it must not be present.	(GL-117) (GL-127)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR036d	If Sub configuration Index (GL-121) is '1' to '49' and Configuration Index (GL-117) is '1' to '499', which indicates that the subconfiguration is represented by a tested vehicle, then Test Number (GL-127) is required; otherwise, it must not be present.	(GL-117) (GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR037a	The Test Category (TI-43) for this Test Number (GL-127) must be equal to 'FTP' (Test Procedure equal to 2, 11, 21, 25, 31, 35, 41, 45, 51, 52), 'US06' (Test Procedure equal to 90), 'SC03' (Test Procedure equal to 95) or 'HWY' (Test Procedure equal to 3).	(TI-43) (GL-127)	Updated	Active
Fuel Economy	FE Label	LD-FE-GL-BR037b	The Test Category (TI-43) for this Test Number (GL-127) must be equal to 'FTP' (Test Procedure equal to 2, 11, 21, 25, 31, 35, 41, 45), 'US06' (Test Procedure equal to 90), 'SC03' (Test Procedure equal to 95) or 'HWY' (Test Procedure equal to 3).	(GL-127) (TI-43)	Deleted	Active
Fuel Economy	FE Label	LD-FE-GL-BR038	If Averaging Method (GL-133) is equal to 'N' (No averaging), then Averaging Group Indicator (GL-134) must not be present.	(GL-134)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR039	If Averaging Method (GL-133) is not equal to 'N' (No averaging), then Averaging Weighting Factor (GL-135) is required.	(GL-135)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR040	If Drive Source (GL-13.5.1) is 'C' (Combustion Engine), then Engine Configuration Number (GL-25) is required.	(GL-25)	Updated	Active
Fuel Economy	FE Label	LD-FE-GL-BR041	If Fuel Usage (GL-89) is not equal to 'BE' (Battery Electric), 'PE' (Plug-in Electric) or 'H' (Hydrogen), then the Fuel Economy Value Unit (GL-90) must be equal to 'MPG' (miles per gallon).	(GL-90)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR042	If the Process Code (GL-0.5) is equal to 'R' (Report), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (GL-2) of the dataset for which the report was requested.	(GL-2)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR043	If the Process Code (GL-0.5) is equal to 'N' (New) or 'C' (Correction), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (GL-2) of the submitted dataset.	(GL-2)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR044a	Manufacturer Code (GL-2) must exist in the system.	(GL-2)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR044b	Manufacturer Code (GL-2) must exist in the system.	(GL-2)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR045	Carline Manufacturer Code (GL-10) must exist in the system.	(GL-10)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR046	Manufacturer Division Code (GL-11) must exist in the system.	(GL-11)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR047	Carline Code (GL-12) must exist in the system for the Carline Manufacturer Code (GL-10), Manufacturer Division Code (GL-11), and Model Year (GL-3).	(GL-12)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR048	Model Type Driving Range (GL-103) must match format 'nnn' for one driving range or 'nnn/nnn' for minimum and maximum driving range.	(GL-103)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR049	Base Level Fuel Usage (GL-110.5) must match a Model Type Fuel Usage (GL-89).	(GL-89) (GL-110.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR050	Test Group (GL-13.5) must exist in the system.	(GL-13.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR051	The Fuel Usage for this Test Number (GL-127) must be the same as one of the Fuel Usages (GL-89) for this Label.	(GL-89) (GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR052	Each Base Level must have a unique Inertia Weight Class (GL-110).	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR053	Each Configuration within a Base Level must have a unique Configuration Index Number (GL-117).	(GL-117)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR054	Each SubConfiguration within a Configuration must have a unique SubConfiguration Index Number (GL-121).	(GL-121)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR055	Each Configuration within a Base Level must be a unique combination of Engine Code (GL-119), Axle Ratio (GL-120), and Transmission Configuration Code (GL-118).	(GL-119) (GL-120) (GL-118)	Not Under Development	Active



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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR056	Each SubConfiguration within a Configuration must be a unique combination of Equivalent Test Weight (GL-123) and Road Load Horsepower (GL-122).	(GL-122) (GL-123)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR057	If the Manufacturer Code of the owner for the Test Number (GL-127) is different than the Submitter's Manufacturer Code (in Submission Author Details), then permission must be granted by the Owner Manufacturer for the Submitting Manufacturer to use the Test Number.	(GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR058	If Transmission Type (GL-67) is equal to 'CVT' (Continuously Variable), then Number of Transmission Gears (GL-71) must equal '1'.	(GL-71)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR059	Carline Manufacturer Code (GL-125.5) must exist in the system.	(GL-125.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR060	Manufacturer Division Code (GL-125.6) must exist in the system.	(GL-125.6)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR061	Carline Code (GL-125.7) must exist in the system for the Carline Manufacturer Code (GL-125.5), Manufacturer Division Code (GL-125.6), and Model Year (GL-3).	(GL-125.7)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR062	Equivalent Test Weight (GL-123) can only be one of the following values: 1000, 1125, 1250, 1375, 1500, 1625, 1750, 1875, 2000, 2125, 2250, 2375, 2500, 2625, 2750, 2875, 3000, 3125, 3250, 3375, 3500, 3625, 3750, 3875, 4000, 4250, 4500, 4750, 5000, 5250, 5500, 6000, 6500, 7000, 7500, 8000, 8500, 9000, 9500, 10000, 10500, 11000, 11500, 12000, 12500, 13000, 13500, or 14000.	(GL-123)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR063	Inertia Weight Class (GL-110) can only be one of the following values: 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000, 3500, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 8500, 9000, 9500, 10000, 10500, 11000, 11500, 12000, 12500, 13000, 13500, or 14000.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR064	If Equivalent Test Weight (GL-123) is equal to '1000' or '1125', then Inertia Weight Class (GL-110) must be equal to '1000'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR065	If Equivalent Test Weight (GL-123) is equal to '1250' or '1375', then Inertia Weight Class (GL-110) must be equal to '1250'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR066	If Equivalent Test Weight (GL-123) is equal to '1500' or '1625', then Inertia Weight Class (GL-110) must be equal to '1500'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR067	If Equivalent Test Weight (GL-123) is equal to '1750' or '1875', then Inertia Weight Class (GL-110) must be equal to '1750'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR068	If Equivalent Test Weight (GL-123) is equal to '2000' or '2125', then Inertia Weight Class (GL-110) must be equal to '2000'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR069	If Equivalent Test Weight (GL-123) is equal to '2250' or '2375', then Inertia Weight Class (GL-110) must be equal to '2250'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR070	If Equivalent Test Weight (GL-123) is equal to '2500' or '2625', then Inertia Weight Class (GL-110) must be equal to '2500'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR071	If Equivalent Test Weight (GL-123) is equal to '2750' or '2875', then Inertia Weight Class (GL-110) must be equal to '2750'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR072	If Equivalent Test Weight (GL-123) is equal to '3000', '3125', or '3250', then Inertia Weight Class (GL-110) must be equal to '3000'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR073	If Equivalent Test Weight (GL-123) is equal to '3375', '3500', '3625', or '3750', then Inertia Weight Class (GL-110) must be equal to '3500'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR074	If Equivalent Test Weight (GL-123) is equal to '3875', '4000' or '4250', then Inertia Weight Class (GL-110) must be equal to '4000'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR075	If Equivalent Test Weight (GL-123) is equal to '4500' or '4750', then Inertia Weight Class (GL-110) must be equal to '4500'.	(GL-110)	Not Under Development	Active



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Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR076	If Equivalent Test Weight (GL-123) is equal to '5000' or '5250', then Inertia Weight Class (GL-110) must be equal to '5000'.	(GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR077	If Equivalent Test Weight (GL-123) is greater than or equal to '5500', then Inertia Weight Class (GL-110) must be equal to Equivalent Test Weight (GL-123).	(GL-123) (GL-110)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR078	Each Base Level must contain at least one Test Number (GL-127).	(GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR079	If a SubConfiguration contains tests, then Test Number (GL-127), Data Substitution (GL-132) and Averaging Method (GL-133) are required for each test.	(GL-132) (GL-127) (GL-133)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR080	If a SubConfiguration contains a Test Number (GL-127), then within that SubConfiguration, each unique combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must contain at least one test with a Test Procedure (TI-8) equal to 2, 21, 25, 31, 35, 41, or 45. Note: FTP test that is NOT a Test Procedure 11 (Cold CO test).	(GL-134) (TI-4) (TI-5) (TI-8)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR081	If a SubConfiguration contains a Test Number (GL-127), then within that SubConfiguration, each unique combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must contain at least one test with a Test Procedure (TI-8) equal to 3 (HWFE test).	(GL-134) (TI-4) (TI-5) (TI-8)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR082	If a SubConfiguration contains a Test Number (GL-127) and FE Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC', then within that SubConfiguration, each unique combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must contain at least one test with a Test Procedure (TI-8) equal to 11 (Cold CO test).	(GL-134) (TI-4) (TI-5) (TI-8)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR083	If a SubConfiguration contains a Test Number (GL-127) and FE Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC', then within that SubConfiguration, each unique combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must contain at least one test with a Test Procedure (TI-8) equal to 95 (SC03 test).	(GL-134) (TI-4) (TI-5) (TI-8)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR084	If a SubConfiguration contains a Test Number (GL-127) and FE Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC' or '5C-MOD', then within that SubConfiguration, each unique combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must contain at least one test with a Test Procedure (TI-8) equal to 90 (US06 test).	(GL-134) (TI-4) (TI-5) (TI-8)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR085	If Averaging Method (GL-133) is equal to 'N' (No averaging), then Averaging Weighting Factor (GL-135) must not be present.	(GL-135)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR086	If Averaging Method (GL-133) is not equal to 'N' (No averaging), meaning that averaging is used, then Averaging Group Indicator (GL-134) is required.	(GL-134)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR087	The same Test Number (GL-127) may not be used multiple times within a SubConfiguration.	(GL-127)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR088	Each Test within a SubConfiguration must have the same Averaging Method (GL-133).	(GL-133)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR089	A Test Averaging Method (GL-133) of 'S' (Simple Averaging) can only be used if Shift Indicator Light (GL-74) is equal to 'Y'.	(GL-133)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR090	Within a SubConfiguration, if Averaging Method (GL-133) is not equal to 'N' (No averaging), meaning that averaging is used, then all tests that have the same combination of Vehicle ID (TI-4), Vehicle Configuration Number (TI-5), and Averaging Group Indicator (GL-134), must have the same Averaging Weighting Factor (GL-135).	(TI-4) (TI-5) (GL-134) (GL-135)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR091	Within a SubConfiguration, if Averaging Method (GL-133) is not equal to 'N' (No averaging), meaning that averaging is used, then all tests that have the same Averaging Group Indicator (GL-134) and unique combinations of Vehicle ID (TI-4) and Vehicle Configuration Number (TI-5), must have Averaging Weighting Factors (GL-135) that add up to exactly 1.00.	(GL-134) (TI-4) (TI-5) (GL-135)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR092	(Warning only, label should be accepted) For each Label Fuel Usage (GL-89) entered for a label, at least 1 Base Level should contain a Base Level Fuel Usage (GL-110.5) with the same value.	(GL-110.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR093	(Warning only, label should be accepted) If the Transmission Type (GL-67) equals 'A', 'M', or 'CVT', then the vehicle used for each test entered for that label should have the same Transmission Type (VI-36).	(VI-36)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR094	(Warning only, label should still be accepted) If the Test Fuel Category (TI-44) of a test within a Base Level is 'G' (Gasoline), then one of the Base Level Fuel Usages (GL-110.5) must be equal to 'G', 'GM', 'GMR', 'GP', or 'GPR'.	(GL-110.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR095	(Warning only, label should still be accepted) If the Test Fuel Category (TI-44) of a test within a Base Level is 'D' (Diesel), then one of the Base Level Fuel Usages (GL-110.5) must be equal to 'D' or 'DU'.	(GL-110.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR096	(Warning only, label should still be accepted) If the Test Fuel Category (TI-44) of a test within a Base Level is 'M' (Methanol), 'E' (Ethanol), 'CNG' (Compressed Natural Gas), 'LPG' (Liquid Petroleum Gas), 'LNG' (Liquified Natural Gas), or 'H' (Hydrogen), then the Test Fuel Category must be equal to one of the Base Level Fuel Usages (GL-110.5).	(GL-110.5)	Not Under Development	Active
Fuel Economy	FE Label	LD-FE-GL-BR097	The Release Date (GL-176) cannot be before January 2nd of the year prior to Model Year (GL-3) or after December 31st of the Model Year (GL-3).	(GL-176)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR098	The combination of Carline Manufacturer Code (GL-10), Division Code (GL-11), and CarlineCode (GL-12) must exist at least once in the repeated subconfiguration sales information (GL-125.5, GL-125.6, and GL-125.7).	(GL-12) (GL-125.5) (GL-125.6) (GL-125.7) (GL-11) (GL-10)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR099	If the combination of Model Year (GL-3), Carline Manufacturer Code (GL-10), Division Code (GL-11), Carline Code (GL-12), Test Group (GL-13.5), Engine Configuration Number (GL-25), Transmission Type (GL-67), Transmission Lockup (GL-69), Transmission Creeper Gear (GL-70), Total Number of Transmission Gears (GL-71), Number of Transmission Modes (GL-76), and Drive System (GL-72) with the same values already exists in a fuel economy label, then Model Type Descriptor Field (GL-78.2) is required.	(GL-78.2)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR100	If there is only one Drive Source (GL-14) and that Drive Source equals 'E' (Electric Motor), then Fuel Economy Label Calculation Approach (GL-79) must equal 'EV' (Electric Vehicle 2-cycle label) or 'EV-5C' (Electric Vehicle 5-cycle label) .	(GL-79)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR101	If Drive Source (GL-14) equals 'C' (Combustion Engine) and 'E' (Electric Motor) and Off-board Charge Capable Indicator (GL-13.5.12) equals 'Yes', then Fuel Economy Label Calculation Approach (GL-79) must equal 'PHEV' (Plug-in Hybrid Label)	(GL-79)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR102	If Fuel Economy Label Calculation Approach (GL-79) is equal to 'PHEV' (Plug-In Hybrid Label), then Charge Depleting Fuel Economy Label Calculation Approach (GL-79.2) is required; otherwise, it is not allowed.	(GL-79.2)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR103	If Fuel Economy Label Calculation Approach (GL-79) is equal to 'PHEV' (Plug-In Hybrid Label), then Charge Sustaining Fuel Economy Label Calculation Approach (GL-79.3) is required; otherwise, it is not allowed.	(GL-79.3)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR104a	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Label Value (GL-85) equals 'Y' (Yes) AND Fuel Economy Value Unit (GL-90) equals 'MPG' (Miles per Gallon) OR 'MPK' (Miles per Kilogram) then at least one of the following three statements must be true for at least one Fuel Usage (GL-89) for the label:  1) Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) IS LESS THAN Manufacturer Calculated Rounded Adjusted Model Type City FE Value (GL-97). 2) Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) IS LESS THAN Manufacturer Calculated Rounded Adjusted Model Type Highway FE Value (GL-98). 3) Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) IS LESS THAN Manufacturer Calculated Rounded Adjusted Model Type Combined FE Value (GL-99).	(GL-100) (GL-97) (GL-101) (GL-98) (GL-102) (GL-99)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR104b	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Label Value (GL-85) equals 'Y' (Yes) AND Fuel Economy Value Unit (GL-90) equals 'KW-HR100' (Kilowatt-Hour per 100 Miles), then at least one of the following three statements must be true for at least one Fuel Usage (GL-89) for the label:  1) Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) IS GREATER THAN Manufacturer Calculated Rounded Adjusted Model Type City FE Value (GL-97). 2) Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) IS GREATER THAN Manufacturer Calculated Rounded Adjusted Model Type Highway FE Value (GL-98). 3) Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) IS GREATER THAN Manufacturer Calculated Rounded Adjusted Model Type Combined FE Value (GL-99).	(GL-100) (GL-97) (GL-101) (GL-98) (GL-102) (GL-99)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR105	If Drive Source (TG-7.1) equals 'C' (Combustion Engine), then Fuel Economy Value Unit (GL-90) equals 'MPG' (miles per gallon).	(GL-90)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR106	If Fuel Usage (GL-89) equals 'H' (Hydrogen) and Fuel Cell Indicator (GL-13.5.8) equals 'Yes', then Fuel Economy Value Unit (GL-90) must be 'MPK' (miles per kilogram).	(GL-90)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR107	If there is only one Drive Source (GL-13.5.1) and that Drive Source equals 'E' (Electric Motor) and Fuel Usage (GL-89) equals 'EL' (Electricity), then Fuel Economy Value Unit (GL-90) must be 'KW-HR100' (kilowatt-hour per 100 miles)."	(GL-90)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR108	Only one Annual Fuel Cost (GL-81) is allowed unless Fuel Usage Value is equal to 'EL' (Electricity)	(GL-81)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR109	If Mfr Voluntary Lower MPG or Higher Energy Consumption Label Value (GL-85) is equal to 'No', then Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) is not allowed.	(GL-100)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR110	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) is present and Fuel Economy Value Unit (GL-90) is equal to 'MPG' (miles per gallon) or 'MPK' (miles per kilometer), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) must be lower than Mfr Calculated Rounded Adjusted Model Type City FE Value (GL-97).	(GL-97) (GL-100)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR111	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) is present and Fuel Economy Value Unit (GL-90) is equal to 'KW-HR100' (kilowatt-hour per 100 miles), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption City Label Value (GL-100) must be greater than Mfr Calculated Rounded Adjusted Model Type City FE Value (GL-97).	(GL-97) (GL-100)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR112	If Mfr Voluntary Lower MPG or Higher Energy Consumption Label Value (GL-85) is equal to 'No', then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) is not allowed.	(GL-102)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR113a	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) is present and Fuel Economy Value Unit (GL-90) is equal to 'MPG' (miles per gallon) or 'MPK' (miles per kilometer), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) must be lower than Mfr Calculated Rounded Adjusted Model Type Combined FE Value (GL-99).	(GL-99) (GL-102)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR113b	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) is present and Fuel Economy Value Unit (GL-90) is equal to 'MPG' (miles per gallon) or 'MPK' (miles per kilometer), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) must be lower than Mfr Calculated Rounded Adjusted Model Type Combined FE Value (GL-99).	(GL-99) (GL-102)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR114	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) is present and Fuel Economy Value Unit (GL-90) is equal to 'KW-HR100' (kilowatt-hour per 100 miles), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) must be greater than Mfr Calculated Rounded Adjusted Model Type Combined FE Value (GL-99).	(GL-99) (GL-102)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR115	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Combined Label Value (GL-102) is present, then it must be greater than or equal to $[1/(0.55/(\text{City}-0.5))+0.45/(\text{Hwy}-0.5))]$ rounded to a whole number AND less than or equal to $[1/(0.55/(\text{City}+0.5))+0.45/(\text{Hwy}+0.5))]$ rounded to a whole number.	(GL-102)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR116a	If only one value is selected for Fuel Usage (GL-89) and it begins with 'G' or 'D', then EPA Model Type Driving Range (GL-103) is not allowed; otherwise it is required if more than one fuel is selected for Fuel Usage including gasoline and diesel..	(GL-103)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR116b	If only one value is selected for Fuel Usage (GL-89) and it begins with 'G' or 'D', then EPA Model Type Driving Range (GL-103) is not allowed; otherwise it is required if more than one fuel is selected for Fuel Usage including gasoline and diesel..	(GL-103)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR117	The combination of Carline Manufacturer Code (GL-125.5), Division Code (GL-125.6), Carline Code (GL-125.7), Transmission Type (GL-67), Transmission Lockup (GL-69), Transmission Creeper Gear (GL-70), Total Number of Transmission Gears (GL-71), and Drive System (GL-72) must exist as a certified model in the Test Group dataset (TG) for the Test Group (GL-126).	(GL-125.5) (GL-125.6) (GL-125.7) (GL-67) (GL-69) (GL-70) (GL-71) (GL-72)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR118	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-MOD' (Modified 5-cycle), then Test Group (GL-126) must have valid values (non-Null) for EPA City Litmus Value (TG-219.3.1) and EPA City Litmus Threshold (TG-219.3.2), and EPA City Litmus Value (TG-219.3.1) must be greater than or equal to EPA City Litmus Threshold (TG-219.3.2).	(GL-126) (TG-219.3.1) (TG-219.3.2)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR119	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-DRV' (Derived 5-cycle), then Test Group (GL-126) must have valid values (non-Null) for EPA City Litmus Value (TG-219.3.1), EPA City Litmus Threshold (TG-219.3.2), EPA Highway Litmus Value (TG-219.4.1), and EPA Highway Litmus Threshold (TG-219.4.2), and EPA City Litmus Value (TG-219.3.1) must be greater than or equal to EPA City Litmus Threshold (TG-219.3.2), and EPA Highway Litmus Value (TG-219.4.1) must be greater than or equal to EPA Highway Litmus Threshold (TG-219.4.2).	(GL-126) (TG-219.4.1) (TG-219.4.2) (TG-219.3.1) (TG-219.3.2)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR120	The Vehicle ID (GL-128) and Vehicle Configuration Number (GL-129) combination must have associated Test Procedure Dynamometer Coefficients Category (VI-40.5) equal to 'C-H-E' (City/Highway/Evap).	(GL-128) (GL-129) (VI-40.5)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR121	Test 5-Cycle Category (GL-130.5) cannot be equal to 'Null'.	(GL-130.5)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR122	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-DRV', then Test 5-Cycle Category (GL-130.5) must equal 'FTP75' or 'HWY'; all other enumerations (including Null) are not allowed.	(GL-130.5)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR123	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-MOD', then Test 5-Cycle Category (GL-130.5) must equal 'FTP75', 'HWY', or 'US06'; all other enumerations (including Null) are not allowed.	(GL-130.5)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR125	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-DRV' and Test 5-Cycle Category (GL-130.5) is equal to "FTP75", then Test Number (GL-127) must have associated Test Result/Emission Name (TI-19) equal to 'MFR FE'.	(GL-127) (TI-19)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR126	If Test Fuel Category (GL-130.2) is equal to 'G', 'D', 'CNG', or 'LPG' and Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC' or '5C-MOD' and Hybrid Indicator (GL-13.5.2) is equal to 'No' and Test 5-Cycle Category (GL-130.5) is equal to 'FTP75', then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1', 'FE BAG 2', and 'FE BAG 3'. (Test Result/Emission Name 'FE BAG 4' is not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR127	If Test Fuel Category (GL-130.2) is equal to 'G','D','CNG',or 'LPG' and Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC' or '5C-MOD' and Hybrid Indicator (GL-13.5) is equal to 'Yes' and 5 Cycle Hybrid Fuel Economy Label Calculation Approach (GL-79.1) is equal to 'HEV-4B' and Test 5-Cycle Category (GL-130.5) is equal to 'FTP75', then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1', 'FE BAG 2', 'FE BAG 3', and 'FE BAG 4'.	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR128	If Test 5-Cycle Category (GL-130.5) is equal to 'HWY', then Test Number (GL-127) must have associated Test Result/Emission Name (TI-19) equal to 'MFR FE'. (Test Result/Emission Name(s) 'FE BAG 1', 'FE BAG 2', 'FE BAG 3', and 'FE BAG 4' are not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR129	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-VEHSPEC' and Test 5-Cycle Category (GL-130.5) is equal to 'US06', then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1', and 'FE BAG 2'. (Test Result/Emission Name(s) 'FE BAG 3', and 'FE BAG 4' are not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR130	If Fuel Economy Label Calculation Approach (GL-79) is equal to '5C-MOD' and Test 5-Cycle Category (GL-130.5) is equal to 'US06', then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'MFR FE', 'FE BAG 1', and 'FE BAG 2'. (Test Result/Emission Name(s) 'FE BAG 3', and 'FE BAG 4' are not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR131	If Test 5-Cycle Category (GL-130.5) is equal to 'FTP20', then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1', 'FE BAG 2' and 'FE BAG 3'. (Test Result/Emission Name 'FE BAG 4' is not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR132	If Test 5-Cycle Category (GL-130.5) is equal to 'SC03', then Test Number (GL-127) must have associated Test Result/Emission Name (TI-19) equal to 'MFR FE'. (Test Result/Emission Name(s) 'FE BAG 1', 'FE BAG 2', 'FE BAG 3', and 'FE BAG 4' are not allowed).	(GL-127) (TI-19)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR133	If the Total Road Load Horsepower (GL-122) is greater than the tested vehicles' EPA-Calculated Total Road Load Horsepower (VI-43.5), or the Equivalent Test Weight (ETW) (GL-123) is greater than the tested vehicles' ETW (VI-30), or the axle ratio (GL-120) is greater than the tested vehicles' axle ratio, then Analytically-Derived FE / CREE Indicator (GL-131) must be equal to 'Yes'.	(GL-131)	Added	Not in the System

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR134	If the Analytically-Derived FE / CREE Indicator (GL-131) is equal to 'No' and [Total Road Load Horsepower (GL-122) is less than the tested vehicles' EPA-Calculated Total Road Load Horsepower (VI-43.5), or the Equivalent Test Weight (ETW) (GL-123) is less than the tested vehicles' ETW (VI-30), or the Axle Ratio (GL-120) is less than the tested vehicles' axle ratio], then Data substitution Indicator (GL-132) must be equal to 'Yes'.	(GL-132)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR135	If the Analytically-Derived FE / CREE Indicator (GL-131) is equal to 'Yes', then the Data Substitution Indicator (GL-132) must be equal to 'No'.	(GL-132)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR136	If Model Year (GL-3) is greater than or equal to 2011, then the Averaging Method (GL-133) cannot be equal to 'S' (Simple averaging).	(GL-133)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR137	If Gas Guzzler Exempt (GL-106) is equal to 'T' (Truck), then Carline Class Code (CL-5) for entered Carline Code (CL-4) must be greater than '9' and less than '24'.	(CL-5) (CL-4)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR138	If Gas Guzzler Exempt (GL-106) is equal to 'N' (Not Exempt), then Manufacturer-Calculated Gas Guzzler Mile Per Gallon (GL-173.1) is required.	(GL-173.1)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR139	If Mfr Voluntary Lower MPG or Higher Energy Consumption Label Value (GL-85) is equal to 'No', then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) is not allowed.	(GL-101)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR140	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) is present and Fuel Economy Value Unit (GL-90) is equal to 'MPG' (miles per gallon) or 'MPK' (miles per kilogram), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) must be lower than Mfr Calculated Rounded Adjusted Model Type Highway FE Value (GL-98).	(GL-101) (GL-98)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR141	If Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) is present and Fuel Economy Value Unit (GL-90) is equal to 'KW-HR/100Miles' (kilowatt-hour per 100 miles), then Manufacturer Voluntary Lower MPG or Higher Energy Consumption Highway Label Value (GL-101) must be greater than Mfr Calculated Rounded Adjusted Model Type Highway FE Value (GL-98).	(GL-101) (GL-98)	Added	Not in the System
Fuel Economy	FE Label	LD-FE-GL-BR142	If Test Fuel Category (GL-130.2) = 'G' (Gasoline), 'D' (Diesel), 'CNG' (Compressed Natural Gas), or 'LPG' (Liquified Natural Gas) and Fuel Economy Label Calculation Approach (GL-79) = '5C-VEHSPEC' (Vehicle Specific 5-cycle label) or '5C-MOD' (Derived Vehicle Specific 5-cycle Calculation Approach for city label but Modified 5-cycle Calculation Approach for Highway label) and Hybrid Indicator (GL-13.5.2) = 'Y' (Yes) and 5 Cycle Hybrid Fuel Economy Label Calculation Approach (GL-79.1) = 'HEV-2B' (Hybrid 2 Bag) and Test 5-Cycle Category (GL-130.5) = 'FTP75' (Federal Test Procedure (75 °F)), then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1', and 'FE BAG 2'. (Test Result/Emission Name(s) 'FE BAG 3', and 'FE BAG 4' are not allowed).	(GL-127)	Added	Not in the System



**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	FE Label	LD-FE-GL-BR143	If Fuel Economy Label Calculation Approach (GL-79) = '5C-VEHSPEC' (Vehicle Specific 5-cycle label) and Test 5-Cycle Category (GL-130.5) = 'US06' Then Test Number (GL-127) must have associated Test Result/Emission Name(s) (TI-19) equal to 'FE BAG 1' and 'FE BAG 2'. (Test Result/Emission Name(s) "FE BAG 3", and "FE BAG 4" are not allowed).	(GL-127)	Added	Not in the System
Fuel Economy	CAFE	LD-FE-CA-BR001a	If Process Code (CA-3) is equal to 'R' (Report) or 'C' (Correction), then a record must exist in the system with the same CAFE/GHG Compliance Category (CA-4), Manufacturer Code (CA-0), and Model Year (CA-1).	(CA-4) (CA-0) (CA-1)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR001b	If Process Code (CA-3) is equal to 'R' (Report) or 'C' (Correction), then a record must exist in the system with the same CAFE/GHG Compliance Category (CA-4), Manufacturer Code (CA-0), and Model Year (CA-1).	(CA-4) (CA-0) (CA-1)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR002	If Process Code (CA-3) is equal to 'N' (New), then a record must not exist in the system with the same CAFE/GHG Compliance Category (CA-4), Manufacturer Code (CA-0), and Model Year (CA-1).	(CA-4) (CA-0) (CA-1)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR003	If CAFE Compliance Category (CA-4) is equal to 'LT' (Light Trucks), then CAFE Standard Type Indicator (CA-10) is required.	(CA-10)	Deleted	Active
Fuel Economy	CAFE	LD-FE-CA-BR004	If Model Year (CA-1) is greater or equal to 2011, then CAFE Standard Type Indicator (CA-10) is required to equal 'R' (Reformed CAFE).	(CA-10)	Updated	Active
Fuel Economy	CAFE	LD-FE-CA-BR005a	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Reformed Model Type Index (CA-14) is required; otherwise, it is not allowed.	(CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR005b	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Reformed Model Type Index (CA-14) is required; otherwise, it is not allowed.	(CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR005c	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Model Type Index (CA-14) is required; otherwise, it is not allowed.	(CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR005d	If CAFE Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Model Type Index (CA-14) is required; otherwise, it is not allowed.	(CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR006	If Model Type Index (CA-14) is provided, then a Fuel Economy Label must exist in the system for this Model Year (CA-1), Manufacturer Code (CA-0) and Model Type Index (CA-14).	(CA-1) (CA-0) (CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR007a	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Footprint Final Model Year Production Units (CA-20) and Footprint Target FE Value (miles per gallon) (CA-21) are required; otherwise, they are not allowed.	(CA-20) (CA-21)	Deleted	Active
Fuel Economy	CAFE	LD-FE-CA-BR007b	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Footprint Final Model Year Production Units (CA-20) and Footprint Target FE Value (miles per gallon) (CA-21) are required; otherwise, they are not allowed.	(CA-20) (CA-21)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR007c	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Footprint Final Model Year Production Units (CA-20) and Footprint Target FE Value (miles per gallon) (CA-21) are required; otherwise, they are not allowed.	(CA-20) (CA-21)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR008	Model Type Index (CA-25) and Mfr Code (CA-0) and Model Year (CA-1) must exist in FE Label.	(CA-25) (CA-0) (CA-1)	Updated	Active
Fuel Economy	CAFE	LD-FE-CA-BR010	Test Number (CA-35) must exist in Test Information (TI-1).	(CA-35)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	CAFE	LD-FE-CA-BR011a	Test Number (CA-35) must be present when Subconfiguration Index (CA-29.5) is between 1 and 49 (inclusive) and Configuration Index (CA-26) is between 1 and 499 (inclusive), which indicates that the Subconfiguration is represented by a test.	(CA-35)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR011b	Test Number (CA-35) must be present when Subconfiguration Index (CA-29.5) is between 1 and 49 (inclusive) and Configuration Index (CA-26) is between 1 and 499 (inclusive), which indicates that the Subconfiguration is represented by a test.	(CA-35)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR011c	Test Number (CA-35) must be present when Sub Configuration Index (CA-29.5) is between 1 and 49 (inclusive) and Configuration Index (CA-26) is between 1 and 499 (inclusive), which indicates that the Sub configuration is represented by a test.	(CA-35)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR011d	Test Number (CA-35) must be present when Subconfiguration Index (CA-29.5) is between 1 and 49 (inclusive) and Configuration Index (CA-26) is between 1 and 499 (inclusive), which indicates that the Subconfiguration is represented by a test.	(CA-35)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR012a	The Test 5-Cycle Category (TI-45) for this Test Number (CA-35) must be equal to 'FTP75' (Test Procedure equal to '2', '21', '25', '31', '35', '41', '45') or 'HWY' (Test Procedure equal to '3').	(CA-35) (TI-43)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR012b	The Test 5-Cycle Category (TI-45) for this Test Number (CA-35) must be equal to 'FTP75' (Test Procedure equal to '2', '21', '25', '31', '35', '41', '45') or 'HWY' (Test Procedure equal to '3').	(CA-35) (TI-43)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR013	If Averaging Method (CA-40) is equal to 'N' (No Averaging), then Averaging Group Indicator (CA-41) must not be present.	(CA-41)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR014	If Averaging Method (CA-40) is not equal to 'N' (No Averaging), then Averaging Weighting Factor (CA-42) is required.	(CA-42)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR015	Final Model Year Production Units (CA-5) must not equal zero.	(CA-5)	Deleted	Active
Fuel Economy	CAFE	LD-FE-CA-BR016	If the Process Code (CA-3) is equal to 'R' (Report), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CA-0) of the dataset for which the report was requested.	(CA-0)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR017	If the Process Code (CA-3) is equal to 'N' (New) or 'C' (Correction), then the Manufacturer Code of the Submission Author Details must match the Manufacturer Code (CA-0) of the submitted dataset.	(CA-0)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR018	If CAFE Standard Type Indicator (CA-10) is equal to 'R' (Reformed CAFE), then Manufacturer Calculated Unrounded Reformed CAFE Standard (CA-22.3) is required; otherwise, it is not allowed.	(CA-22.3)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR020	The Fuel Usage for the Test Number (CA-35) must be the same as one of the Fuel Usages (GL-89) for the Label.	(CA-35) (GL-89)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR021a	Manufacturer Code (CA-0) must exist in the system.	(CA-0)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR021b	Manufacturer Code (CA-0) must exist in the system.	(CA-0)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR022	If Footprint Index (CA-14.5) is provided, then a Footprint dataset must exist in the system for this Model Year (CA-1), Manufacture Code (CA-0), Footprint Index (CA-14.5), and the Carline which is derived from Model Type Index (CA-14).	(CA-1) (CA-0) (CA-14)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR023	Each Base Level within a Model Type must have a unique Inertia Weight Class (CA-25.6).	(CA-25.6)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR024	Each Configuration within a Base Level must have a unique Configuration Index Number (CA-26).	(CA-26)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
Fuel Economy	CAFE	LD-FE-CA-BR025	Each SubConfiguration within a Configuration must have a unique SubConfiguration Index Number (CA-29.5).	(CA-29.5)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR026	Each Configuration within a Base Level must be a unique combination of Engine Code (CA-28), Axle Ratio (CA-29), and Transmission Configuration Code (CA-27).	(CA-29) (CA-27) (CA-28)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR027	Each SubConfiguration within a Configuration must be a unique combination of Equivalent Test Weight (CA-31) and Road Load Horsepower (CA-30).	(CA-31) (CA-30)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR028	A Configuration with a new Configuration Index (CA-26) must not have the same combination of Engine Code (CA-28), Axle Ratio (CA-29), and Transmission Configuration Code (CA-27) as a Configuration previously entered in FE Label for the same Model Type and Base Level.	(CA-26) (CA-28) (CA-29) (CA-27)	Not Under Development	Active
Fuel Economy	CAFE	LD-FE-CA-BR029	A SubConfiguration with a new SubConfiguration Index (CA-29.5) must not have the same combination of Equivalent Test Weight (CA-31) and Road Load Horsepower (CA-30) as a SubConfiguration previously entered in FE Label for the same Model Type, Base Level, and Configuration.	(CA-31) (CA-30) (CA-29.5)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR001a	If Process Code (IV-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then an active record must exist in the system with the same Manufacturer Code (IV-2), VIN (IV-3), Emission Program (IV-4) and Mileage Category (IV-20).	(IV-2) (IV-3) (IV-4) (IV-20)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR001b	If Process Code (IV-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then an active record must exist in the system with the same Manufacturer Code (IV-2), VIN (IV-3), Emission Program (IV-4) and Mileage Category (IV-20).	(IV-2) (IV-3) (IV-4) (IV-20)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR002	If Process Code (IV-1) is equal to 'N' (New), then an active record must not exist in the system with the same Manufacturer Code (IV-2), VIN (IV-3), Emission Program (IV-4) and Mileage Category (IV-20).	(IV-2) (IV-3) (IV-4) (IV-20)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR003a	Manufacturer Code (IV-2) must exist in the system.	(IV-2)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR003b	Manufacturer Code (IV-2) must exist in the system.	(IV-2)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR004	Test Group (IV-6) must exist in the system as a certified test group.	(IV-6)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR005	If the Model Year (IV-8) is equal to 2010 or later, then Evaporative/Refueling Family (IV-7) must exist in the system.	(IV-7)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR006	If the Emission Program (IV-4) is equal to 'R1' (EPA In-Use Surveillance Testing (EPA only)), 'R2' (EPA In-Use Confirmatory Testing (EPA only)), 'C1' (California In-Use Confirmatory Testing Phase 1), or 'C2' (California In-Use Confirmatory Testing Phase 2), then the Manufacturer Code (IV-2) of the Submission Author Details must be 'EPA' or 'ARB'.	(IV-2)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR007	The Model Year (IV-8) must match the embedded model year in the Test Group (IV-6).	(IV-6) (IV-8)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR008	The Model Year (IV-8) must match the embedded model year in the Evaporative/Refueling Family (IV-7).	(IV-7) (IV-8)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR009	The Manufacturer Code (IV-2) must match the manufacturer code embedded in the Test Group (IV-6).	(IV-6) (IV-2)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR010	The Manufacturer Code (IV-2) must match the manufacturer code embedded in the Evaporative/Refueling Family (IV-7).	(IV-7) (IV-2)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR011	Manufacturer Division Code (IV-10) must exist in the system.	(IV-10)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR012	If the Model Year (IV-8) is equal to 2010 or later, then Carline Code (IV-11) must exist in the system.	(IV-11)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR013a	If Transmission Type (IV-23) is equal to 'OT' (Other), then Transmission Type if Other (IV-24) is required; otherwise, it is not allowed.	(IV-24)	Updated	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR013b	If Transmission Type (IV-23) is equal to 'OT' (Other), then Transmission Type if Other (IV-24) is required; otherwise, it is not allowed.	(IV-24)	Updated	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR014	If Transmission Type (IV-23) is equal to 'M' (Manual), then Transmission Lockup (IV-25) must equal 'N' (No).	(IV-25)	Updated	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR015	If Creeper Gear (IV-26) is equal to 'Y' (Yes), then Transmission Type (IV-23) must equal 'M' (Manual).	(IV-23)	Updated	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR016	If Transmission Type (IV-23) is equal to 'CVT' (Continuously Variable), then Number of Transmission Gears (IV-27) must equal '1'.	(IV-27)	Updated	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR017	The Date of Inspection (IV-32) must not be greater than the submission date.	(IV-32)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR018	If Commanded MIL Status (IV-35) is equal to 'Y' (MIL Commanded On), then Active Trouble Code Status (IV-36) must equal 'Y' (Active Trouble Codes Present).	(IV-36)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR019a	If Active Trouble Code Status (IV-36) is 'Y' (Active Trouble Codes Present), then at least one Active Trouble Code (IV-37) is required.	(IV-37)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR019b	If Active Trouble Code Status (IV-36) is 'Y' (Active Trouble Codes Present), then at least one Active Trouble Code (IV-37) is required.	(IV-37)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR020a	If Readiness Status Complete (IV-38) is equal to 'N' (Not All Readiness Monitors Are Complete), then at least one Incomplete Readiness Status (IV-39) is required.	(IV-39)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR020b	If Readiness Status Complete (IV-38) is equal to 'N' (Not All Readiness Monitors Are Complete), then at least one Incomplete Readiness Status (IV-39) is required.	(IV-39)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR021	If Incomplete Readiness Status (IV-39) is equal to 'OT' (Other), then Vehicle Comments (IV-42) is required.	(IV-42)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR022	If Vehicle Rejection Code (IV-40) is not '0' (Vehicle Was Not Rejected), then Vehicle Rejection Comments (IV-41) is required.	(IV-41)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR023	If Process Code (IV-1) is equal to 'D' (Delete), then Deletion Reason (IV-45) is required.	(IV-45)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR024a	IUVP Vehicle Information can only be accepted within the allowed time range of submissions for the Model Year (IV-8) and Mileage Category (IV-20).	(IV-20) (IV-8)	Not Under Development	Active
IUVP	IUVP Vehicle Information	LD-IUVP-IV-BR024b	IUVP Vehicle Information can only be accepted within the allowed time range of submissions for the Model Year (IV-8) and Mileage Category (IV-20).	(IV-8) (IV-20)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR001a	If Process Code (IT-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then an active record must exist in the system with the same Manufacturer Code (IT-2), VIN (IT-3), Emission Program (IT-4) and Mileage Category (IT-38), and Test Number (IT-5).	(IT-2) (IT-3) (IT-4) (IT-38) (IT-5)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR001b	If Process Code (IT-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then an active record must exist in the system with the same Manufacturer Code (IT-2), VIN (IT-3), Emission Program (IT-4) and Mileage Category (IT-38), and Test Number (IT-5).	(IT-2) (IT-3) (IT-4) (IT-38) (IT-5)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR002	If Process Code (IT-1) is equal to 'N', then an active record must not exist in the system with the same Manufacturer Code (IT-2), VIN (IT-3), Emission Program (IT-4), Mileage Category (IT-38), and Test Number (IT-5).	(IT-2) (IT-3) (IT-4) (IT-38) (IT-5)	Not Under Development	Inactive

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
IUVP	IUVP Test Information	LD-IUVP-IT-BR003a	An active Vehicle Information dataset must exist in the system with the same Manufacturer Code (IT-2), VIN (IT-3), Emission Program (IT-4), and Mileage Category (IT-38).	(IT-2) (IT-3) (IT-4) (IT-38)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR003b	An active Vehicle Information dataset must exist in the system with the same Manufacturer Code (IT-2), VIN (IT-3), Emission Program (IT-4), and Mileage Category (IT-38).	(IT-2) (IT-3) (IT-4) (IT-38)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR004a	Manufacturer Code (IT-2) must exist in the system.	(IT-2)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR004b	Manufacturer Code (IT-2) must exist in the system.	(IT-2)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR005a	If the Emission Program (IT-4) is equal to 'R1' (EPA In-Use Surveillance Testing (EPA only)), 'R2' (EPA In-Use Confirmatory Testing (EPA only)), 'C1' (California In-Use confirmatory testing Phase 1), or 'C2' (California In-Use confirmatory testing Phase 2), then the Manufacturer Code (IT-2) of the Submission Author Details must be 'EPA' or 'ARB'.	(IT-2)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR005b	If the Emission Program (IT-4) is equal to 'R1' (EPA In-Use Surveillance Testing (EPA only)), 'R2' (EPA In-Use Confirmatory Testing (EPA only)), 'C1' (California In-Use Confirmatory Testing Phase 1), or 'C2' (California In-Use Confirmatory Testing Phase 2), then the Manufacturer Code (IT-2) of the Submission Author Details must be 'EPA' or 'ARB'.	(IT-2)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR006a	If the Process Code (IT-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then Test Number (IT-5) is required; otherwise it is not allowed.	(IT-5)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR006b	If the Process Code (IT-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then Test Number (IT-5) is required; otherwise, it is not allowed.	(IT-5)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR006c	If the Process Code (IT-1) is equal to 'R' (Report) or 'C' (Correction) or 'D' (Delete), then Test Number (IT-5) is required; otherwise, it is not allowed.	(IT-5)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR007	The Test Laboratory Code (IT-7) must be valid.	(IT-7)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR008	If the Weighted Result (IT-29) is greater than the Federal In-Use Standard (IT-31), then the Federal Pass/Fail/Void Status (IT-10) must equal 'F' (Fail) or 'V' (Void).	(IT-10)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR009	If the Weighted Result (IT-29) is greater than the California In-Use Standard (IT-32), then the California Pass/Fail/Void Status (IT-11) must equal 'F' (Fail) or 'V' (Void).	(IT-11)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR010	If the Federal Pass/Fail/Void Status (IT-10) is equal to 'F' (Fail) or 'V' (Void), then Test Comments (IT-37) is required.	(IT-37)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR011	If the California Pass/Fail/Void Status (IT-10) is equal to 'F' (Fail) or 'V' (Void), then Test Comments (IT-37) is required.	(IT-37)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR012	The Test Date (IT-12) must not be greater than the submission date.	(IT-12)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR013	If the Test Condition (IT-13) is equal to 'SS' (Set to Spec), then the Manufacturer Code (IT-2) of the Submission Author Details must be 'EPA' or 'ARB'.	(IT-2)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR014	If the Test Condition (IT-13) is equal to 'AM' (After Maintenance), then Test Comments (IT-37) is required.	(IT-37)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR015	If Process Code (IT-1) is 'D' (Delete), then Deletion Reason (IT-39) is required.	(IT-39)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR016	If the category of the Test Procedure (IT-14) is 'FTP' (Test Procedure equal to '2', '11', '21', '25', '31', '35', '41', '45', '51', '52', '80', or '81'), then Bag 1 Result (IT-33), Bag 2 Result (IT-34), and Bag 3 Result (IT-35) are required.	(IT-33) (IT-34) (IT-35)	Not Under Development	Active

**Verify Light-Duty Greenhouse Gas Business Rules (Effective after May 13, 2011 deployment)**

Compliance Program	Dataset	Business Rule Identifier	Business Rule Text	Target Data Element Number	Development Type	Production Status (Prior to 05/13/2011)
IUVP	IUVP Test Information	LD-IUVP-IT-BR017	If the category of the Test Procedure (IT-14) is 'FTP' (Test Procedure equal to '2', '11', '21', '25', '31', '35', '41', '45', '51', '52', '80', or '81') and the test vehicle is a hybrid (Drive Source (TG-7) equals 'H' (Hybrid)), then Bag 4 Result (IT-36) is required.	(IT-36) (TG-7)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR018	IUVP Test Information can only be accepted within the allowed time range of submissions for the Model Year (IV-8) of the test vehicle and the Mileage Category (IT-38).	(IV-8) (IT-38)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR019a	Test Date (IT-12) must be greater than the Build Date (IV-33) of the vehicle.	(IV-33) (IT-12)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR019b	Test Date (IT-12) must be greater than the Build Date (IV-33) of the vehicle.	(IV-33) (IT-12)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR020	Test Procedure Codes (IT-14) of '51', '52', '80', '81', '82', or '83' are not allowed.	(IT-14)	Not Under Development	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR021	Test Result/Emission Names (IT-28) of 'FE BAG 1', 'FE BAG 2', 'FE BAG 3', and 'FE BAG 4' are not allowed.	(IT-28)	Updated	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR022	If the Test Procedure (IT-14) is an ORVR (24 or 44) or Running Loss (32 or 37) test, then a Test Result/Emission Name (IT-28) of 'HC-TOTAL' is not allowed.	(IT-28)	Updated	Active
IUVP	IUVP Test Information	LD-IUVP-IT-BR023	The Test Result/Emission Name (IT-28) of 'HC' is only allowed for ORVR (Test Procedure (IT-14) equal to 24 or 44) or Running Loss (Test Procedure (IT-14) equal to 32 or 37) tests.	(IT-28)	Updated	Active