MAZDA MOTOR CORPORATION
3-1, Shinchi, Fuchu-cho, Aki-gun
Hiroshima 730-8670, Japan

Mr. William Pidgeon
Compliance Division
Office of Transportation and Air Quality
Environmental Protection Agency
2000 Traverwood Dr,
Ann Arbor, Michigan 48105
U.S.A.

May 16, 2014
Ref. No. LCE-14/065

Dear Mr. Pidgeon:

Subject: Submission of Application for Certification for Light-Duty Vehicles

Mazda Motor Corporation is submitting the Part I Initial Common Section and Part I Application for Certification for its 2015 model year light-duty vehicle below:

Carline	Test Group	Evap./Refueling Family	Standard	EPA Test
Mazda 3 4-Door/5-Door 2.5L	FTKXV02.55NM	FTKXR0111GAK	Federal Tier2 Bin5	06/12/2014:FEDV
			California LEVII-ULEV	06/17/2014:FEDV
Mazda 3 4-Door/5-Door 2.5L	FTKXV02.5NC1	FTKXR0115GCX	California LEVII-SULEV	-

We would appreciate your cooperation in the issue of your certificate of conformity for our 2015MY vehicle listed above at an early date.

If you have any comments or questions regarding the material submitted, please contact Mr. David Robertson of Mazda North American Operations at 248-295-7859.

Sincerely yours,

Shin Okamoto
General Manager
Environmental & Safety Engineering Department

enclosure
cc: Mazda North American Operations - Wixom Center
Mazda North American Operations - Irvine R&D

ZOOM-ZOOM

Mazda Motor Corporation

Application for Certification - Part 1

2015 Model Year

Durability Group:
FTKXGPGNNE37

Evap. Family:
FTKXR0115GCX

Test Group:
FTKXV02.5NC1

Durability Group Description:
Otto Cycle, Four Stroke, Piston, Gasoline Fueled, Direct Fuel Injection
Catalyst Code: PY48

Test Group Description:
2.5 Liter, I4 Engine, LDV

Applicable Standards:
LEVII-SULEV (PZEV)

Carlines Covered:
Mazda 3 4-door
Mazda 3 5-door

Vehicles Tested:

4ECPYS1-010	Config. 2	FTP	ETKX10025225	HWY	ETKX10025226
		US06	ETKX10025229	SC03	ETKX10025228
		Cold-FTP	ETKX10025227		
4ECPY31-009	Config. 1	Evap(3day)	ETKX10023001		
		Evap(RL)	ETKX10023002	ORVR	ETKX10023003

EPA Response Requested by: May 30, 2014

For Questions, Contact:
EPA: David Robertson, 248-295-7859
CARB: Jungo Takeda, 949-852-7292

Initial Submission on 05/16/2014

Mazda Motor Corporation
2015 Model Year Application for Certification
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4. DURABILITY TEST PROCEDURE DESCRIPTION

4.4. List of DF

Please refer to individual test group's application section 6 & 7 test result (Certification Summary Information Report).

5. TEST GROUP DESCRIPTION

5-1. Description of Test Group per §86.1827-01

Car Line	Mazda 3 4-Door / Mazda 3 5-Door
Test Group Name	FTKXV02.5NC1
Engine Displacements Covered	2488.5cc
Arrangement and Number of Cylinders	I4
Vehicle Class(es) Covered	LDV
Emission Standards Class	California LEVII-SULEV
Applicable Emission Standards	Refer to section 6 & 7 of this application document.

Certification Summary Information Report

Manufacturer	Mazda Motor Corporation	**Manufacturer Code**	TKX
Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX
Certificate Number	N/A	**CARB Executive Order #**	N/A
Certificate Issue Date	N/A	**Certificate Revision Date**	N/A
Certificate Effective Date	N/A	**Conditional Certificate**	--
CSI Revision #	N/A	**CSI Submission/Revision Date**	05/07/2014
Model Year	2015		

Test Group Information

CSI Type	New	**Running Change Reference Number**	N/A
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Gasoline	Spark Ignition Direct fuel injection	N

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	--
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	--
Fuel Cell Indicator	--	**EPA Vehicle Class**	LDV
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	Yes
Durability Group Name	FTKXGPGNNE37	**Durability Group Equivalency Factor**	0.6
Reduced Fee Test Group	No	**Certification Region Code(s)**	CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Compliance Indicator	No	**SFTP Composite CO Option**	No
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	FTKXV02.0ND1
Mfr Test Group Comments	Durability group equivalency factor=ABC/SRC		
Mfr Exhaust / Evap Standards Comments	--		

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Evaporative/Refueling Family Information

Evaporative Summary Information Type	New	**Submission/Correction Date**	04/02/2014
Integrated ORVR?	Yes	**Fuel(s)**	Gasoline
Multiple Fuel Storage	--		
Bladder Fuel Tank?	No		
Fuel Tank Material	Metal	**Fuel Tank Material Description**	Steel
Fill Pipe Seal Type	Liquid seal		
Air Intake System Vapor Storage Device?	Yes	**Air Intake System Vapor Storage Device Description**	HC Adsorber
Fuel System Vapor Storage Canister?	Yes	**Other Vapor Storage**	N/A
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	115	**Number of Primary Canisters**	1
Number of Bleed Canisters	0	**Bleed Canister Total Working Capacity (grams)**	N/A
Mfr Evaporative/Refueling Family Comments	--		

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Mazda Motor Corporation	1 - MAZDA	38 - MAZDA3 5-Door	California + CAA Section 177 states	2-Wheel Drive, Front	Semi-Automatic	6	Yes
Mazda Motor Corporation	1 - MAZDA	37 - MAZDA3 4-Door	California + CAA Section 177 states	2-Wheel Drive, Front	Semi-Automatic	6	Yes

Engine Description

Hybrid Type	--	**Hybrid Description**	--
Engine Type	4-Stroke Spark Ignition	**Mfr Engine Description**	--
Engine Block Arrangement	Inline	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	GF-5 0W-20
Number of Cylinders/Rotors	4		

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Three-way catalyst	Paladium + Rhodium	Ceramic	Monolith
2	Three-way catalyst	Paladium + Rhodium	Ceramic	Monolith

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Engine Configuration Number 1

Engine Displacement (liters)	2.5	**Engine Rated Horsepower**	184
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	2
Air Aspiration Method	Naturally Aspirated	**Number of Air Aspiration Devices**	N/A
Air Aspiration Device Configuration	--	**Charge Air Cooler Type**	N/A
Cylinder Deactivation Description	N/A		
Variable Valve Timing System Description	This technology optimizes the valve timing by using computer control to continuously switch the intake and exhaust valve opening/closing timing according to driving conditions.	**Variable Valve Lift System**	N/A
Number of Knock Sensors	1		
Air/Fuel Sensor # 1 Type	Heated oxygen	**Air/Fuel Sensor # 1 Description**	N/A
Air/Fuel Sensor # 2 Type	Heated air fuel	**Air/Fuel Sensor # 2 Description**	N/A
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	No	**EGR Type**	--
Cooled Exhaust Gas Recirculation	No		
Closed Loop Air Injection System	No	**Air Injection Type**	--
Mfr Engine Configuration Comments	--		

Official Test Numbers

Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Gasoline	ETKX10025225	ETKX10025229	ETKX10025228	ETKX10025227	ETKX10025226	23.8	22.7	34.4	29.6	N/A

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Emission Data Vehicle Information

Vehicle ID / Configuration 4ECPY31-009 / 1

Vehicle Model

Represented Test Vehicle Make	MAZDA	**Represented Test Vehicle Model**	MAZDA6

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Gasoline

Hybrid Indicator	N		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	--	**Rechargeable Energy Storage System Indicator**	--
Rechargeable Energy Storage System	--	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	--		
Transmission Type	Manual	**# of Transmission Gears**	6
Engine Code	4PY3AA1	**Axle Ratio**	4.1
Displacement (liters)	2.5	**Rated Horsepower**	183
Equivalent Test Weight (pounds)	3500	**Air Aspiration Method**	Naturally Aspirated
Drive Mode While Testing	2-Wheel Drive, Front	**SIL Usage**	Not eqipped
Aged Emission Components	4,000 (mi)		

Dynamometer Coefficients:

	Target Coefficients			Set Coefficients			
Coefficient Category	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients**
City/Highway/Evap	21.295	0.22055	0.017096	7.635	0.00901	0.01811	10
Cold CO	23.425	0.24261	0.018806	10.018	-0.19143	0.021086	N/A
US06	21.295	0.22055	0.017096	7.635	0.00901	0.01811	N/A

Manufacturer Test Vehicle Comments 14MY MAZDA6 2.5L M6 CALIFORNIA P225/55R17 1 EM.

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Test #	**ETKX10023001**	**Test Procedure**	**38 - CA fuel 3-day evap.**
Exhaust Test # for this Evap Test	ETKX10022991	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	08/27/2012	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Total Hydrocarbon	0.19	--

Manufacturer Test Comments 14MY MAZDA6 2.5L M6 CALIFORNIA P225/55R17 1 EVAP EM

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-II Zero Evap	HC-TOTAL	0.190	0.003	0.19	0.35	Pass

Test #	**ETKX10023002**	**Test Procedure**	**37 - California Fuel Running Loss**
Exhaust Test # for this Evap Test	ETKX10022991	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	08/27/2012	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Hydrocarbon for Running Loss and ORVR	0	--

Manufacturer Test Comments 14MY MAZDA6 2.5L M6 CALIFORNIA P225/55R17 1 Running Loss EM

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-II Zero Evap	HC	0.000	0.000	0.00	0.05	Pass

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX
Test #	**ETKX10023003**	**Test Procedure**	**24 - Federal fuel refueling test (ORVR)**
Exhaust Test # for this Evap Test	ETKX10022991	**Test Fuel Type**	61 - Tier 2 Cert Gasoline
Test Date	09/06/2012	**Fuel**	Gasoline
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Hydrocarbon for Running Loss and ORVR	0.004	--

Manufacturer Test Comments 14MY MAZDA6 2.5L M6 CALIFORNIA P225/55R17 1 ORVR EM

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-II Zero Evap	HC	0.004	0.005	0.01	0.20	Pass

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Emission Data Vehicle Information

Vehicle ID / Configuration 4ECPYS1-010 / 2

Vehicle Model

Represented Test Vehicle Make	MAZDA	**Represented Test Vehicle Model**	MAZDA6

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Gasoline

Hybrid Indicator	N		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	--	**Rechargeable Energy Storage System Indicator**	--
Rechargeable Energy Storage System	--	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	--		
Transmission Type	Semi-Automatic	**# of Transmission Gears**	6
Engine Code	4PYSAA2	**Axle Ratio**	3.59
Displacement (liters)	2.5	**Rated Horsepower**	184
Equivalent Test Weight (pounds)	3500	**Air Aspiration Method**	Naturally Aspirated
Drive Mode While Testing	2-Wheel Drive, Front	**SIL Usage**	Not eqipped
Aged Emission Components	4,000 (mi)		

Dynamometer Coefficients:

	Target Coefficients			Set Coefficients			
Coefficient Category	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients**
City/Highway/Evap	27.144	0.1385	0.017219	9.481	-0.04035	0.017762	10.3
Cold CO	29.858	0.15235	0.01894	9.097	-0.14127	0.019785	N/A
US06	27.144	0.1385	0.017219	9.481	-0.04035	0.017762	N/A

Manufacturer Test Vehicle Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM. Please use the sports mode during all the emission tests. After engine starting, press the sport mode switch in the center console and make sure the indicator light (SPORT) illuminates in the speed meter. Please note that the sports mode will be turned off automatically when the ignition switch is turned off. Canister Loading Procedure: In order to avoid interfering with canister loading from OBD evaporative system monitoring, a canister must be loaded at least 60 minutes after engine key off.

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX
Test #	**ETKX10025225**	**Test Procedure**	**25 - California fuel 2-day exhaust (w/can load)**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	04/05/2013	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	306	--
Bag 1 Fuel Economy	28.5	28.5
Bag 2 Carbon Dioxide	298	--
Bag 2 Fuel Economy	29.3	29.3
Bag 3 Carbon Dioxide	261	--
Bag 3 Fuel Economy	33.5	33.5
CH4 - Methane	0.0016	--
Carbon Monoxide	0.1	--
Manufacturer Fuel Economy	30.2	30.2
Nitrogen Oxide	0.011	--
Nitrous Oxide	0.01	--
Non-methane Hydrocarbon	0.0035	--
Non-methane organic gas (California)	0.0037	--
Total Hydrocarbon	0.005	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Optional Carbon-Related Exhaust Emissions	292.1879077	292

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	289	--

Manufacturer Test Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM FTP

Test Group FTKXV02.5NC1 **Evaporative/Refueling Family** FTKXR0115GCX

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-II SULEV	CO	0.10	--	--	--	0.01	--	0.1	1.0	Pass
CA	150,000 miles	California LEV-II SULEV	NMOG	0.0037	--	1.04	--	0.0023	--	0.006	0.010	Pass
CA	150,000 miles	California LEV-II SULEV	NOX	0.011	--	--	--	0.006	--	0.02	0.02	Pass
CA	150,000 miles	California LEV-II SULEV	OPT-CREE	292	--	--	--	0	--	292	--	--

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

FTP CH4-Methane Add DF (150K): 0.0039

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Test #	**ETKX10025227**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	26 - Cold CO Regular (Tier 2)
Test Date	03/29/2013	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	411	--
Bag 1 Fuel Economy	21.4	21.4
Bag 2 Carbon Dioxide	324	--
Bag 2 Fuel Economy	27.4	27.4
Bag 3 Carbon Dioxide	274	--
Bag 3 Fuel Economy	32.4	32.4
CH4 - Methane	0.0074	--
Carbon Monoxide	0.41	--
Manufacturer Fuel Economy	27	27
Nitrogen Oxide	0.013	--
Non-methane Hydrocarbon	0.0521	--
Non-methane organic gas (California)	0.0542	--
Total Hydrocarbon	0.059	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	328	--

Manufacturer Test Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM COLDCO

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	50,000 miles	California LEV-II SULEV	CO	0.41	--	--	--	0.00	--	0.4	10.0	Pass
CA	120,000 miles	California LEV-II SULEV	HC-NM	0.05	--	--	--	0.00	--	0.0	0.2	Pass

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Test #	**ETKX10025226**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	04/05/2013	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
CH4 - Methane	0.0028	--
Carbon Monoxide	0.02	--
Manufacturer Fuel Economy	43.9	43.9
Nitrogen Oxide	0.003	--
Nitrous Oxide	0.01	--
Non-methane Hydrocarbon	0.0025	--
Non-methane organic gas (California)	0.0026	--
Total Hydrocarbon	0.005	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Optional Carbon-Related Exhaust Emissions	202.0891397	202

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	199	--

Manufacturer Test Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM HWY

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	150,000 miles	California LEV-II SULEV	NOX	0.003	--	--	--	0.006	--	0.01	0.03	Pass
CA	150,000 miles	California LEV-II SULEV	OPT-CREE	202	--	--	--	0	--	202	--	--

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

HWY CH4-Methane Add DF (150K): 0.0039

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Test #	**ETKX10025229**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	04/05/2013	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	MIYOSHI PROVING GROUND		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	408	--
Bag 1 Fuel Economy	21.4	21.4
Bag 2 Carbon Dioxide	226	--
Bag 2 Fuel Economy	38.6	38.6
CH4 - Methane	0.0028	--
Carbon Monoxide	0.08	--
Manufacturer Fuel Economy	32.8	32.8
Nitrogen Oxide	0.008	--
Non-methane Hydrocarbon	0.0065	--
Non-methane organic gas (California)	0.0068	--
SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	0.015	--
Total Hydrocarbon	0.009	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	266	--

Manufacturer Test Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM US06

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	4,000 miles	California LEV-II SULEV	CO	0.08	--	--	--	--	--	0.1	8.0	Pass
CA	4,000 miles	California LEV-II SULEV	HC-NM+NOX	0.015	--	--	--	--	--	0.02	0.14	Pass

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Test #	**ETKX10025228**	**Test Procedure**	**95 - SC03**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	23 - CARB Phase II Gasoline
Test Date	04/11/2013	**Fuel**	Gasoline
Vehicle Class	LDV/Passenger Car	**DF Type**	Mfr. Determined
Verify Test Lab ID	ETL-4 (Hiroshima)		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
CH4 - Methane	0.0014	--
Carbon Monoxide	0.06	--
Manufacturer Fuel Economy	22	22
Nitrogen Oxide	0.007	--
Non-methane Hydrocarbon	0.0016	--
Non-methane organic gas (California)	0.0016	--
SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	0.009	--
Total Hydrocarbon	0.003	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	397	--

Manufacturer Test Comments 14MY MAZDA6 2.5L S6 With Regenerative braking system PZEV P225/45R19 Automatic-mode & Sports-mode 2 EM SC03

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	4,000 miles	California LEV-II SULEV	CO	0.06	--	--	--	--	--	0.1	2.7	Pass
CA	4,000 miles	California LEV-II SULEV	HC-NM+NOX	0.009	--	--	--	--	--	0.01	0.20	Pass

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-II SULEV
Fuel	Gasoline	**Test Procedure**	California fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.01	1.0
150,000 miles	NMOG	--	--	1.04	--	--	--	0.0023	0.010
150,000 miles	NOX	--	--	--	--	--	--	0.006	0.02
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.9999

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-II SULEV
Fuel	Gasoline	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	--	--	--	--	2.7
4,000 miles	HC-NM+NOX	--	--	--	--	--	--	--	0.20

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-II SULEV
Fuel	Gasoline	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	--	--	--	--	8.0
4,000 miles	HC-NM+NOX	--	--	--	--	--	--	--	0.14

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-II SULEV
Fuel	Gasoline	**Test Procedure**	Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0.00	10.0
120,000 miles	HC-NM	--	--	--	--	--	--	0.00	0.2

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-II SULEV
Fuel	Gasoline	**Test Procedure**	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NOX	--	--	--	--	--	--	0.006	0.03
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.9999

Evaporative/Refueling Standards

Evaporative/Refueling Family	FTKXR0115GCX	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-II Zero Evap
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.20	0.005

Evaporative/Refueling Family	FTKXR0115GCX	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-II Zero Evap
Test Procedure	California Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.05	0.000

Evaporative/Refueling Family	FTKXR0115GCX	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-II Zero Evap
Test Procedure	CA fuel 3-day evap.		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL	--	0.35	0.003

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX

Glossary

Useful Life			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		

Emission Name			
HC-TOTAL	Total Hydrocarbon	MFR FE	Manufacturer Fuel Economy
CO	Carbon Monoxide	HC	Hydrocarbon for Running Loss and ORVR
CO2	Carbon dioxide	METHANE	CH4 - Methane
CREE	Carbon-Related Exhaust Emissions	METHANOL	CH3OH - Methanol
OPT-CREE	Optional Carbon-Related Exhaust Emissions	N2O	Nitrous Oxide
NOX	Nitrogen Oxide	SPITBACK	Spitback Hydrocarbon in grams
PM	Particulate Matter	AMP-HRS	Integrated Amp-hours
PM-COMP	SFTP Composite Particulate Matter	START-SOC	System Start State of Charge Watt-hours
HC-NM	Non-methane Hydrocarbon	END-SOC	System End State of Charge Watt-hours
OMHCE	Organic material Hydrocarbon Equivalent	ACT-DISTANCE	Actual Distance Driven (miles)
OMNMHCE	Organic material non-methane HC equivalent	AS-VOLT	Average System Voltage
NMOG	Non-methane organic gas (California)	CO2 BAG 1	Bag 1 Carbon Dioxide
HCHO	Formaldehyde	CO2 BAG 2	Bag 2 Carbon Dioxide
H3C2HO	Acetaldehyde	CO2 BAG 3	Bag 3 Carbon Dioxide
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	CO2 BAG 4	Bag 4 Carbon Dioxide
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
CO-COMP	SFTP Composite Carbon Monoxide	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
ETHANOL	C2H5OH - Ethanol	DT-IWRR	Drive Trace Inertia Work Ratio Rating
FE BAG 1	Bag 1 Fuel Economy	DT-ASCR	Drive Trace Absolute Speed Change Rating
FE BAG 2	Bag 2 Fuel Economy	DT-EER	Drive Trace Energy Economy Rating
FE BAG 3	Bag 3 Fuel Economy	COMB-CREE	Combined Carbon-Related Exhaust Emissions
FE BAG 4	Bag 4 Fuel Economy	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions

Certification Region			
CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level			
B1	Federal Tier 2 Bin 1	L2SULEV30	California LEV-II SULEV30
B2	Federal Tier 2 Bin 2	L2LEV395	California LEV-II LEV395
B3	Federal Tier 2 Bin 3	L2ULEV340	California LEV-II ULEV340
B4	Federal Tier 2 Bin 4	L2LEV630	California LEV-II LEV630
B5	Federal Tier 2 Bin 5	L2ULEV570	California LEV-II ULEV570
B6	Federal Tier 2 Bin 6	L3LEV160	California LEV-III LEV160
B7	Federal Tier 2 Bin 7	L3ULEV125	California LEV-III ULEV125
B8	Federal Tier 2 Bin 8	L3ULEV70	California LEV-III ULEV70

Test Group	FTKXV02.5NC1	**Evaporative/Refueling Family**	FTKXR0115GCX
B9	Federal Tier 2 Bin 9	L3ULEV50	California LEV-III ULEV50
B10	Federal Tier 2 Bin 10	L3SULEV30	California LEV-III SULEV30
B11	Federal Tier 2 Bin 11	L3SULEV20	California LEV-III SULEV20
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	L3LEV395	California LEV-III LEV395
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	L3ULEV340	California LEV-III ULEV340
L2	California LEV-II LEV	L3ULEV250	California LEV-III ULEV250
L2OP	California LEV-II LEV Optional	L3ULEV200	California LEV-III ULEV200
U2	California LEV-II ULEV	L3SULEV170	California LEV-III SULEV170
S2	California LEV-II SULEV	L3SULEV150	California LEV-III SULEV150
ZEV	California ZEV	L3LEV630	California LEV-III LEV630
OT	Other	L3ULEV570	California LEV-III ULEV570
T1	Federal Tier 1	L3ULEV400	California LEV-III ULEV400
PZEV	California PZEV	L3ULEV270	California LEV-III ULEV270
L2LEV160	California LEV-II LEV160	L3SULEV230	California LEV-III SULEV230
L2ULEV125	California LEV-II ULEV125	L3SULEV200	California LEV-III SULEV200

Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)

Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

Additional Terms and Acronyms			
AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery
DF	Deterioration Factor	SIL	Shift Indicator Light
Evap	Evaporation, Evaporative	Trans	Transmission

9. OBD SYSTEM DESCRIPTION

Please refer to section 16 of this application document.

11. AECD DESCRIPTIONS

11-1. Control, Parameters and Justification

Please refer to section 16 of this application document.

11-2. Parameters and Devices

Please refer to section 16 of this application document.

12. DESCRIPTION OF VEHICLES COVERED BY CERTIFICATE AND TEST PARAMETERS

12-1. Vehicle Parameters

Carline	Mazda 3 4-Door		Mazda 3 5-Door	
Model Name	Mazda 3 4-Door		Mazda 3 5-Door	
Vehicle Classification	LDV			
Emission Control System	TWC/WU-TWC/HO2S/WR-HO2S/DFI			
Engine Code	4PYSLA1	4PYSLB2	4PYSLA1	4PYSLB2
Number of Valves per Cylinder	4			
Engine Displacement (cc)	2488.5			
Sales Area	California			
Transmission and Overdrive	S6 with drive selection			
Regenerative Braking System	Not Applicable	Applicable	Not Applicable	Applicable
Grill Shutter	Not Applicable	Applicable	Not Applicable	Applicable
SIL	Not Applicable			
Tire Size	P205/60 R16 91H 215/45 R18 89W			
N/V Ratio	27.4			
ETW (lbs)	3250		3375	
CW (lbs)	3001		3016	
GVW (lbs)	4072			
Fuel Tank Volume (liter)	50.0			
Canister Working Capacity (g)	115			
Canister Bed Volume	573g (1850cc)			
Power (hp) / rpm	184/5700			
Torque (lb-ft) / rpm	185/3250			

14. REQUEST FOR CERTIFICATION

Request for Certificate

Test Group: FTKXV02.5NC1
Evaporative/Refueling Family: FTKXR0115GCX

Mazda Motor Corporation requests that EPA issue a **2015** model year certificate of conformity for the above specified test group and evaporative/refueling family combination more fully described in this application. This is a California-only test group request. This combination complies with the following application emission standards:

Federal: low altitude _____ high altitude _____

California: X

This combination meets all certification requirements, and the application is current as of this date.

Shin Okamoto
General Manager
Environmental & Safety Engineering Department
Mazda Motor Corporation

16-3. OBD SYSTEM DESCRIPTION

Due to business confidentiality, this section is deleted in FOI Copy.
For Confidential Copy, please refer to the following pages.

16-4. AECD DESCRIPTIONS

Due to business confidentiality, this section is deleted in FOI Copy.
For Confidental Copy, Please refer to the following pages.

17. CALIFORNIA ARB INFORMATION

17-1. California Fill Pipe Specifications

AIR RESOURCES BOARD APPLICATION FORMAT
FOR COMPLIANCE WITH THE FILL PIPE REQUIREMENTS

Manufacture	Mazda Motor Corporation
Test Group	FTKXV02.5NC1
Vehicle Model(s)	Mazda 3

(use extra sheets if required)

The nomenclature and symbols used below are the same as those defined in "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks", amended December 7, 1982.

	ARB Specification	Manufacturer Specification*
General Specification		
(1) Angle α in degrees	$-10° \leq \alpha \leq 20°$	-3.3°
(2) Spill Prevention in degrees (angle between centerline of test spot in its resting position and the horizontal plane).	30° (MIN)	31.7°
(3) Test nozzle penetration of restrictor	2.25 CM (MIN)	3.5 CM
(4) Angle β in degrees	none	-0.1°
Fill Pipe Specification		
(1) Fill pipe face surface in TIR.	0.025 CM (MAX)	0.025 CM
(2) Fill pipe face outside diameter.	5.75 CM (MAX)	4.85 CM
(3) Internal locking lip in degrees of the inside circumference	100° (MIN)	275°
(a) degrees extending each side of reference plane.	35° (MIN) LS**	81°
	each side RS**	182°
(4) Height of lip measured from fill pipe inside wall;	0.25 CM (MIN)	0.28 CM
or height of lip measured from fill pipe outside wall for outside wall for outside diameters between 5.20 and 5.75 CM.	0.85 CM (MIN)	
(5) Depth of lip (D) in centimeters	$0.4 \leq D \leq 1.3$	$0.9 \leq D \leq 1.0$ CM
Offset		
Offset A	none	0.41 CM
Offset B	none	0.0 CM

* dimension should include adverse tolerance condition
**LS = Left side of reference plane
**RS = Right side of reference plane

17-2. NMOG/NMHC and HCHO/NMHC Ratio

NMOG / NMHC = 1.04

17-4 Certification Summary Sheet

E.O. # _____

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2015 MODEL YEAR AIR RESOURCES BOARD CERTIFICATION SUMMARY SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Mazda Motor Corporation Test Group: FTKXV02.5NC1 Evap. Family: FTKXR0115GCX

Engine Code Types: CA xxx 49S 50S ORVR: Yes xxx No

Exhaust Std: LEV LEV2 ULEV ULEV2 SULEV SULEV2 xxx

U.S. EPA:

Vehicle Class(es): PC xxx LDT1 LDT2 MDV1 MDV2 MDV3

MDV4 MDV5

Exhaust Useful Life: 100K 120K 150K xxx

Evap Useful Life: 100K 120K 150K xxx

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)

Fuel Type(s): Dedicated xxx Flex-Fuel Dual-Fuel Bi-Fuel

Gasoline xxx Diesel CNG LNG LPG

M85 E85 Other(specify)

Exh Emission Test Fuel(s): Tier2 Unleaded Ph2 xxx CNG LPG M85

E85 Other (Specify)

Diesel: 13 CCR 2282 40 CFR 86. 113-90 40 CFR 86. 113-94

Evaporative Emission Test Procedure: California xxx Federal

Evaporative Emission Std: LEV LEV2 xxx Federal

Service Accumulation: Whole Veh Full Mi Whole Veh Accel Mi Mfr Bench xxx Other

NMOG Test Procedure: N/A Std xxx Equiv

R/L Test Procedure: SHED Pt. Source xxx

Engine Configuration: I4 Displacement: 2.5 Liters

Valves/Cyl: 4 Rated HP: 184@5700 RPM

Engine: Front xxx Mid Rear

Drive: FWD xxx RWD 4WD-FT 4WD-PT

Exhaust Control System and Features: TWC/WU-TWC/HO2S/WR-HO2S/DFI

(use abbreviations per SAE J1930 SEP91)

	Sect/Page #		Sect/Page #
1 Authorized Representative	1-1	22 Gen Std, Increase in Emiss, Safety Meets all Reqmts	8
2 Fuel Specification	-	23 Driveability Statements	8
3 Test Equipment	-	24 Adjustable Parameters	12
4 Test procedure	12-2-1	25 Tamper Resistance Method(s)	-
5 Mileage Accumulation Route	16-2	26 Fill Pipe Specifications	17-1
6 Emission Warranty Statement	17-3	27 High Altitude Compliance	8
7 Maint : Cert/Req'd/Recm'	-	28 OBD Sys Incl Marked Revisions	16-3
8 Emiss Label/Vac Hose Dia	17-6	29 I & M Test Procedure & Data	8
9 Evap Control System	6, 12-1	30 50 Degree F Compliance	16-5
10 Engine Parameters	6, 12-1	31 Manufacturer's RAF	-
11 Fuel System	6	32 Phase-In Schedule	16-5
12 Ignition System	6, Part Ⅱ	33 NMOG Fleet Average Calculation	16-5
13 Exhaust Control System	6, 12-1	34 AB965 Credits/Withdrawals	-
14 Proj Sales (LDV/MDV Split)	13-1	35 EPA certificate	-
15 Vehicle Description	12-1	36 Equiv NMOG Proc--ARB Approval	N/A
16 Evap Bench Test Procedure	16-2		
17 R/L Temp & Press Profiles	12-2-4		
18 EDV Selection	-		
19 Prod Veh same as Test Veh	8		
20 Emission Label Durability	8		

21 Test Vehicle Information	DDV (EM)	DDV (Evap)	EDV (EM)	EDV (Evap)
C/O or C/A MY & ID	2014MY 4DCPYS1-013	2013MY DDFPEG1-001 2013MY DDFPEG1-002	2014MY 4ECPYS1-010	2014MY 4ECPY31-009
Vehicle Log Page (s)	-	-	-	-
Zero Mile Book Page (s)	N/A	N/A	N/A	N/A
Maint Logs & Engr Eval	-	-	-	-

Initial Submission on 05/16/2014

17-4 Certification Summary Sheet (Contd.)

California Review sheet

2015 Model-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

E.O.# _____
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Manufacture : MAZDA Test Group : FTKXV02.5NC1 Evaporative Family : FTKXR0115GCX

PROJECTED EMISSIONS (grams/mile, except, grams/test for D+HS and grams/gallon for ORVR)[1],[2]

																			Evaporative		
		Test				MPG		FTP						20° F		HWY			3-day		
Vehicle ID	Engine Code	Loc.	Trans	ETW	DPA	CTY/HWY	Mile	NMOG	CO	Nox	HCHO *2	CO_2 *1	CH_4 *1	CO	NMHC	Nox	CO_2 *1	CH_4 *1	D+HS	R/L	ORVR
4ECPYS1-010	4PYSAA2	MAZDA	S6	3500	n/a	30.2	50K	---	---	---	---	289	0.0016	0.4	--	---	199	0.0028	---	---	---
4ECPY31-009	4PY3AA1	MAZDA	M6			/43.9	120K	---	---	---	---	---	---	---	0.0	---	---	---	---	---	---
							150K	0.006	0.1	0.02	---	---	---	---	---	0.01	---	---	0.19	0.00	0.01

*1 CO2 & CH4 are value at 4K mile.
*2 Complying with HCHO standard based on the good engineering evaluation.

(1) The Emission Data Vehicle(s) above comply with standards of:	50K	---	---	---	---	---	---	10.0	---	---	---	---	---	---	---	---
	120K	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---
	150K	0.010	1.0	0.02	---	---	---	---	---	0.03	---	---	0.35	0.05	0.20

The NMOG values include Reactivity Adjustment Factor(s) (RAF) of : Not Applicable X NMOG _____ Methane (CNG or LNG only) _____

Emission values include DFs (with RAF deterioration, if applicable) of:	50K	---	---	---	---	---	---	0.00	---	---	---	---	---	---	---	---
	120K	---	---	---	---	---	---	---	0.00	---	---	---	---	---	---	---
	150K	0.0023	0.01	0.006	---	---	---	---	---	0.006	---	---	---	---	---	---
(2) Evaporative DFs are the average of :	150K	---	---	---	---	---	---	---	---	---	---	---	0.003	0.000	0.005

	SFTP										
		US06			SC03				50°F *3		
	Mile	NH-NM+Nox	CO	CO2	NH-NM+Nox	CO	CO2		NMOG	CO	NOX
Certification Level :	4K	0.02	0.1	266	0.01	0.1	397		0.013	0.1	0.01
Standards :	4K	0.14	8.0	---	0.20	2.7	---		0.020	1.0	0.02

*3 conducted by development vehicle

	FTP	HWY	US06	SC03	20°F CO	50°F
Test Number :	ETKX10025225	ETKX10025226	ETKX10025229	ETKX10025228	ETKX10025227	-
Test Date :	04/05/2013	04/05/2013	04/05/2013	04/11/2013	03/29/2013	02/14/2013

Remarks _____

Application Processed by _____ Date _____ Reviewd by _____ Date _____

17-4 Certification Summary Sheet (Contd.)

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2015 MODEL YEAR AIR RESOURCES BOARD CERTIFICATION SUMMARY SHEET

PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Mazda Motor Corporation Test Group: FTKXV02.5NC1 Evap. Family: FTKXR0115GCX

Engine Code Types: CA xxx 49S 50S ORVR: Yes xxx No

Exhaust Std: LEV LEV2 ULEV ULEV2 SULEV SULEV2 xxx

U.S. EPA:

Vehicle Class(es): PC xxx LDT1 LDT2 MDV1 MDV2 MDV3

MDV4 MDV5

Exhaust Useful Life: 100K 120K 150K xxx

Evap Useful Life: 100K 120K 150K xxx

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)

Fuel Type(s): Dedicated xxx Flex-Fuel Dual-Fuel Bi-Fuel

Gasoline xxx Diesel CNG LNG LPG

M85 E85 Other(specify)

Exh Emission Test Fuel(s): Tier2 Unleaded Ph2 xxx CNG LPG M85

E85 Other (Specify)

Diesel: 13 CCR 2282 40 CFR 86. 113-90 40 CFR 86. 113-94

Evaporative Emission Test Procedure: California xxx Federal

Evaporative Emission Std: LEV LEV2 xxx Federal

Service Accumulation: Whole Veh Full Mi Whole Veh Accel Mi Mfr Bench xxx Other

NMOG Test Procedure: N/A Std xxx Equiv

R/L Test Procedure: SHED Pt. Source xxx

Engine Configuration: I4 Displacement: 2.5 Liters

Valves/Cyl: 4 Rated HP: 184@5700 RPM

Engine: Front xxx Mid Rear

Drive: FWD xxx RWD 4WD-FT 4WD-PT

Exhaust Control System and Features: TWC/WU-TWC/HO2S/WR-HO2S/DFI

(use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST)	Vehicle Models (if coded see attachment)	Trans. (M5, A4 etc.)	ETW or Test Wt.	DPA or RLHP	Ignition *1 (ECM/PCM) Part NO.	EGR system *1 Part. NO	Catalytic Converter *1 Part .NO
4PYSLA1 (CA)	Mazda 3 4-Door	S6	3250	n/a	PE19 18881 A PEAB 18881 A	n/a	Main : PY48 2055X A Pre. : PY48 2050X
4PYSLA1 (CA)	Mazda 3 5-Door	S6	3375	n/a	PE19 18881 A PEAB 18881 A	n/a	Main : PY48 2055X A Pre. : PY48 2050X
4PYSLB2 *2 (CA)	Mazda 3 4-Door	S6	3250	n/a	PECX 18881 A PEDB 18881 A	n/a	Main : PY48 2055X A Pre. : PY48 2050X
4PYSLB2 *2 (CA)	Mazda 3 5-Door	S6	3375	n/a	PECX 18881 A PEDB 18881 A	n/a	Main : PY48 2055X A Pre. : PY48 2050X

*1 Initial parts number only, for update refer to Individual application Part 2.

*2 with regenerative braking system.

17-5. Fuel Evaporative Emission Results

Rig Test Result (3-day): 0.0109 (g/test)
Emission Standard: 0.054 (g/test)

18. REVISIONS

No.	Date	Pages Affected	Description
-	05/16/2014	-	Issued.

Mazda Motor Corporation

Application for Certification

2015 Model Year

Durability Group:
T2B5 / ULEV2: FTKXGPGNND17
PZEV: FTKXGPGNNE37

Evap. Family:
T2B5 / ULEV2: FTKXR0111GAK
PZEV: FTKXR0115GCX

Test Group:
T2B5 / ULEV2: FTKXV02.55NM
PZEV: FTKXV02.5NC1

PART 2

Mazda Motor Corporation
2015 Model Year Application for Certification
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1. PART NUMBERS

Device	Part No.	Note
Accelerator Pedal Position (APP) Sensor	GHK3 41600 B	*8
	GHK3 41600 C	*8
	GHP9 41600 C	*9
	GHP9 41600 D	*9
Air Flow Sensor/ Mass Air Flow (MAF) Sensor/ Intake Air Temperature (IAT) Sensor	PE01 13215	*1
	PE01 13215 T10	
Air Fuel Ratio (A/F) Sensor (Heated)	PE01 188G1 T60	
	PE01 188G1 A	*1
Brake Switch	BN7N 66490	
Cam Angle Sensor/ Camshaft Position (CMP) Sensor	PE01 18230	
Canister Vent Valve (CVV)	PE01 1873X	
Catalyst	PY31 2050X T01	*3
	PY31 2050X	*1, *3
	PY31 2055X T20	*2
	PY31 2055X A	*1, *2
	PY48 2050X	*3, *5
	PY48 2055X A	*2, *5
Crank Angle Sensor/ Engine Speed Sensor/ Crankshaft Position (CKP) Sensor	PE01 18221	
Engine Coolant Temperature (ECT) Sensor	B593 18840 A	
Evaporative Emission (EVAP) Canister	PE5J 1396Z	*6,*4
	PE5B 1396Z	*6,*5
	PE8V 1396Z	*7,*4
	PE8T 1396Z	*7,*5
Fuel Filler Cap	KD35 42250 A	
Fuel Injector	PY01 13250 T02	
	PY01 13250	*1
Fuel Limiting Vent Valve	GJR9 42990 B	
Fuel Pressure Sensor	PE01 18211	
Fuel Pump(Low pressure side)/ Fuel Pressure Regulator	PE11 1335Z	*1
	PE18 1335X T01	
Fuel Pump(High pressure side)	PE18 203F0	
	PE19 203F0	
	PE01 203F0 F	
Fuel Tank Pressure (FTP) Sensor	PE01 182B3 A	
Fuel Tank Level (FTL) Sensor	BHN9 60960	

Note:
*1: for mass production *2: Main *3: Pre
*4: for Federal *5: for California *6: for hatchback
*7: for sedan *8: for semi-automatic transmission *9: for mechanical transmission

1. PART NUMBERS (contd.)

Device	Part No.	Note
HC Adsorber	PE01 133AZ	*2
Ignition Coil	PE20 18100	
	PE20 18100 A	
Knock Sensor	PE01 18921 T10	
	PE01 18921	*1
Manifold Absolute Pressure (MAP) Sensor	PE02 18211	
Motor Assy for VVT (for inlet valve)	PE01 124Z0 T11	
	PE01 124Z0 C	*1
Neutral Switch	C602 17640	
Oil Control Valve for VVT	PE01 14420	
Oxygen Sensor (Heated)	PE12 1886Z T20	
	PE12 1886Z	*1
Positive Crankcase Ventilation (PCV) Valve	PY01 13890	
Purge Control Valve/ Solenoid Valve (Duty Purge)	PE01 18751	*1
	PE01 18751 T30	
Spark Plug	PE5R 18110	
	PE5S 18110	
Thermostat	PE01 15171	
Throttle Body/ Throttle Position (TP) Sensor	PY01 13640	*1
	PY01 13640 T01	
Vapor Orifice	GHP9 42980	
	GJR9 42980	
Variable Valve Timing (VVT) Actuator (for inlet valve)	PE01 124X0 B	
Variable Valve Timing (VVT) Actuator (for exhaust valve)	PE01 124Y0 B	

Note:
*1: for mass production *2: for California

1. PART NUMBERS (contd.)

Device	Part No.	Software No.	Supplier	Transmission	Specification
Engine Control Unit/ Injector Driver/ Barometric Pressure (BARO) Sensor	PE19 18881 A	PY2J 188K2 C *1	Mitsubishi Electric	Semi-automatic	Federal
	PECX 18881 A	PY2R 188K2 D *1, *2			
	PEAB 18881 A	PY2N 188K2 C *1	DENSO		
	PEDB 18881 A	PY2T 188K2 D *1, *2			
	PE19 18881 A	PY08 188K2 C *1	Mitsubishi Electric		California
	PECX 18881 A	PY2P 188K2 D *1, *2			
	PEAB 18881 A	PY2L 188K2 C *1	DENSO		
	PEDB 18881 A	PY2S 188K2 D *1, *2			
	PE18 18881 A	PYBG 188K2 A *1	Mitsubishi Electric	Manual	Federal
	PEAA 18881 A	PYBH 188K2 A *1	DENSO		
	PE18 18881 A	PYBE 188K2 A *1	Mitsubishi Electric		California
	PEAA 18881 A	PYBF 188K2 A *1	DENSO		
	P51J 18881 T50	D02_V207_J36A_PY_Calif_MT_4			

Note:
*1: for mass production
*2: w/ regenerative braking system

1. PART NUMBERS (contd.)

Device	Part No.	Software No.	Note
Transmission Control Unit/ Shift Position Range Sensor/Switch/ Turbine Shaft Speed (TSS) Sensor/ Output Shaft Speed (OSS) Sensor	FZ21 21EM1 F	PY2S 21PS1 C	*1

Device	Part No.	Note
Transmission Fluid Temperature (TFT) Sensor	FZ01 210A0 A	*1
PL Solenoid	FZ01 211L1	*1
Shift Solenoid (SS) A	FZ01 211F1	*1
Shift Solenoid (SS) B	FZ01 211L3	*1
Shift Solenoid (SS) C	FZ01 211L4	*1
Oil Pressure Switch A	FZ01 212C0	*1
Oil Pressure Switch B	FZ01 212J0	*1

Note:
*1: for semi-automatic transmission vehicle

2. CALIBRATION INFORMATION

EM Component	Parameter	Calibration
FUEL SYSTEM		
Fuel pump	Fuel flow	min. 120.6 L/hr @ 430 kPa
Fuel pressure regulator	Fuel pressure	430±7 kPa
EGR SYSTEM		
EGR valve	Exhaust gas flow	Not Applicable
EGR vacuum regulator	Vacuum to EGR valve	Not Applicable
EGR orifice	Orifice diameter	Not Applicable
IGNITION SYSTEM		
Tune up specifications	Basic timing	12 (+6, -8) deg CA (BTDC)
	Timing rpm	610±50 rpm *1, 600±50 rpm *2
	Idle rpm in N	610±50 rpm *1
	Idle rpm in P	600±50 rpm *2
Spark plugs	Gap	1.05 through 1.15 mm
MISCELLANEOUS		
Oxygen sensor	λ=(engine A/F)/(stoich A/F)	λ=0.9 : min. 650 mV
		λ=1.1 : max. 150 mV
A/F ratio sensor	λ=(engine A/F)/(stoich A/F)	λ=4.42 : min. 2.768 mA
		λ=0.82 : max. –1.053 mA
Thermostat	Coolant flow: starts to open	82 °C
	Coolant flow: fully open by	95 °C

*1: for manual transmission
*2: for semi-automatic transmission

3. DESCRIPTION OF VEHICLES COVERED BY CERTIFICATE AND TEST PARAMETERS

Refer to “12. DESCRIPTION OF VEHICLES COVERED BY CERTIFICATE AND TEST PARAMETERS” in the Part I Application and the Common Section.

4. FINAL SALES (FINAL)

Refer to “13-2. Final Sales (Final)” in the final submission of the Common Section.

5. SERVICE MANUALS AND SERVICE BULLETINS

Mazda has been submitted copies of service bulletins and instructions under separate covers as they became available.
For service manuals, it can be reviewed through our service website (http://www.mazdatechinfo.com/) with the user ID and password.