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#### RSI BULLETIN #92-009

FROM: Daniel C. Ludwig

DATE: September 23, 1992

SUBJECT: Test Laboratory Conformance Statements

Appendix G of the CMA Product Approval Code of Practice (CODE) contains the conformance statement forms that are submitted to the CMA Monitoring Agency by the test laboratories. This is a <u>test laboratory</u> conformance statement reflecting laboratory responses.

RSI has received different conformance statements from the February 1992 issue of the CODE, an updated conformance statement from CMA Code Bulletin #92-C-02, and a variety of unauthorized, interim conformance statement formats evolving from the interim activities of the ad hoc CMA Engine Testing Laboratory Work Group (ETLWG). After considering the impact on the use of the various conformance statement formats during the initial implementation of the CODE, the CMA PAPTG has determined limited use of the interim conformance statements for all registered tests should be permitted.

For all registered engine tests completed (EOT) after March 30, 1992 and on or before May 18, 1992, the CMA Monitoring Agency will accept any of the conformance statements previously described in the second paragraph of this bulletin. For all registered engine tests completed after May 18, 1992 and before September 30, 1992, the conformance statements submitted to the CMA Monitoring Agency must use the format described in CMA Code Bulletin #92-C-02 or from Appendix G of the September 1992 CODE. For all registered tests completed after September 30, 1992, the conformance statements of Appendix G of the September 1992 CODE must be used. A blank copy of this Test Laboratory Conformance Statement is enclosed.

The change to the conformance statement issued with the September 1992 CODE is restricted to the two conclusions. Since this is a test laboratory conformance statement, the conclusions are now limited to stating that operational review of the test indicates the results should or should not be used for MTAC calculations. This revision eliminates the need for laboratory personnel to state that the test results are representative of the sponsoring company's candidate oil performance.

The checklist for the conformance statement in the September 1992 CODE also adds a location for noting the formulation/stand code.

#### USE OF TEST LABORATORY CONFORMANCE STATEMENT

Any test laboratory that has started a test registered with the CMA Monitoring Agency is committing to submit the conformance statements and, if applicable, the conformance checklist. A description of the conformance statement, accompanied by examples, is provided. These are broad examples of laboratory conformance and actual cases may be a combination of the various conditions.

#### DESCRIPTION OF CONFORMANCE STATEMENT

The CMA Product Approval Code of Practice Test Laboratory Conformance Statement contains three sections consisting of Declarations, Conclusions and Comments. A Conformance Statement <u>must</u> be submitted to the CMA Monitoring Agency after any registered engine test is started.

DECLARATIONS: Four sections must be checked YES or NO under "DECLARATIONS." One section confirms conformance to the CMA Product Approval Code of Practice and the other three sections confirm conformance to ASTM practices and procedures.

CONCLUSIONS: "CONCLUSIONS" are generally based upon the respective Declarations of the Conformance Statement. In some cases, "CONCLUSIONS" will be declared NA, meaning the conclusions are not applicable.

COMMENTS: If a lab checks any YES or NO statements that contains an asterisk (\*), then supporting statements <u>must</u> be documented under "COMMENTS." However, laboratories may elect to write comments when not specifically required.

In some cases comments are required even if a declaration contains no asterisk.

#### EXAMPLES FOR USE OF CONFORMANCE STATEMENTS

The following examples explain the use of the conformance sheets and the <u>suggested</u> Declarations, Conclusions and Comments. Each example has a corresponding sample of a completed Conformance Statement form.

Example 1A represents a completed, operationally valid test meeting all conformance requirements, resulting in a conclusion that MTAC calculations should be included. When references to "normal" declarations are made in other examples, example 1A is the model to reference.

#### EXAMPLE SET # 1 VALID TESTS MEETING ALL REQUIREMENTS

CONDITIONS: Test was conducted in operationally valid manner, test ran the required number of test hours, and there were no special problems or anomalies. All CMA requirements were met.

#### EXAMPLE 1A

TEST TYPES: Sequence IID, IIIE, VE, VI or L38

The Conformance Statement:

DECLARATIONS: The first three declarations would be declared YES and the fourth declaration that a deviation occurred making the test a special case would be declared NO.

CONCLUSIONS: The first conclusion would be checked indicating the results should be included in Multiple Test Acceptance Criteria (MTAC) calculations.

COMMENTS: No supporting comments are required.

#### EXAMPLE 1B

TEST TYPE: 1G2

The Conformance Statement:

DECLARATIONS: Declarations are the same as example 1A.

CONCLUSIONS: All conclusions would be checked as NA, since MTAC calculations do not apply.

COMMENTS: No supporting comments are required.

EXAMPLE 1A...VALID TESTS MEETING ALL REQUIREMENTS (Does not include 1G2)

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:	
DECLARATIONS	
CMA Product Approval Code	in accordance with those aspects of the of Practice, as amended by CMA by the laboratory. Yes $X$ No
stands have been calibrat	ion of test power section and/or test ted in accordance with the applicable amendments through the ASTM Information No*
	n a valid manner in accordance with the cedure and amendments through the ASTM m. Yes $X$ No*
	one of the test parameters identified by ial case. Yes* No $X$ (This currently applies on Letter System.)
CHECK THE APPROPRIATE CON	NCLUSION
	of this test indicates that the results in Multiple Test Acceptance Criteria
( )* Operational review of should not be included	of this test indicates that the results ded in Multiple Test Acceptance Criteria
Note: Supporting comments are asterisk.	required for all responses identified with an
Comments:	
(Signature)	(Data)
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2

EXAMPLE 1B...VALID 1G2 TEST MEETING ALL REQUIREMENTS

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:	
DECLARATIONS	
CMA Product Approval Code	n accordance with those aspects of the of Practice, as amended by CMA y the laboratory. Yes $X$ No*
stands have been calibrate	on of test power section and/or test ed in accordance with the applicable mendments through the ASTM Information No*
The test was conducted in applicable ASTM test proc Information Letter System	a valid manner in accordance with the edure and amendments through the ASTM . Yes $X$ No*
A deviation occurred in or the ASTM as being a special only to specific deviations identified in the ASTM Information	ne of the test parameters identified by all case. Yes* No $X$ (This currently applied Letter System.)
CHECK THE APPROPRIATE CON-	CLUSION
(NA) Operational review of should be included in Calculations.	f this test indicates that the results n Multiple Test Acceptance Criteria
(NA) *Operational review of should not be include	f this test indicates that the results ed in Multiple Test Acceptance Criteria
Note: Supporting comments are a asterisk.	required for all responses identified with an
Comments:	
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2

#### EXAMPLE SET # 2 COMPLETED, OPERATIONALLY INVALID TEST

CONDITIONS: Test was declared operationally invalid by lab, but ran the required number of test hours.

TEST TYPES: IID, IIIE, VE, VI, L38 or 1G2

The Conformance Statement:

DECLARATIONS: The test was still conducted in accordance to the CMA CODE, resulting in the first declaration being declared YES. The third declaration regarding test validity per ASTM requirements would be NO. The remaining declarations would be normal, i.e. YES and NO for the second and fourth declarations.

CONCLUSIONS: Except for 1G2, the second conclusion indicating the results should not be used for MTAC calculations would be required. The 1G2 test requires NA (not applicable) for both conclusions.

COMMENTS: Supporting comments are required to explain the reason for invalidation.

EXAMPLE 2...COMPLETED, OPERATIONALLY INVALID TEST (refer to written description for 1G2)

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:	
DECLARATIONS	
CMA Product Approval Code of	ccordance with those aspects of the Practice, as amended by CMA he laboratory. Yes $X$ No*
stands have been calibrated :	of test power section and/or test in accordance with the applicable dments through the ASTM Information No*
The test was conducted in a rapplicable ASTM test procedure Information Letter System.	valid manner in accordance with the re and amendments through the ASTM Yes No $X$ *
	of the test parameters identified by case. Yes* No $X$ (This currently Letter System.)
CHECK THE APPROPRIATE CONCLU	SION
	his test indicates that the results ultiple Test Acceptance Criteria
(X)* Operational review of the should not be included :	his test indicates that the results in Multiple Test Acceptance Criteria
Note: Supporting comments are requasterisk.	sired for all responses identified with an
Comments: LAB MUST PROVI	DE SUPPORTING COMMENTS
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2

#### EXAMPLE SET # 3 TERMINATED PRIOR TO COMPLETION

CONDITIONS: The test is terminated prior to completion.

#### EXAMPLE 3A

ADDITIONAL CONDITIONS: The termination was based upon SPONSOR REQUEST. (Note: 1G2 termination was not based upon results from an intermediate inspection. 1G2 intermediate inspection illustrated in example 3B)

TEST TYPES: IID, IIIE, VE, VI, L38 or 1G2

#### The Conformance Statement:

DECLARATIONS: Since the test was terminated early, the third declaration regarding test validity would be declared NO. All remaining declarations would follow the normal pattern of YES for declaration one on following CMA CODE, YES for declaration two on proper selection of test power sections per ASTM test procedure and NO for declaration four asking if this was a special case.

CONCLUSIONS: The second conclusion would be checked indicating the test would not be used for MTAC. The 1G2 test requires NA for both conclusions.

COMMENTS: The comment section would indicate that the test was operated in a valid manner and the sponsor requested termination.

#### EXAMPLE 3B

ADDITIONAL CONDITIONS: The termination was based upon SPONSOR REQUEST.

TEST TYPE: 1G2

The Conformance Statement:

DECLARATIONS: Since the 1G2 test procedure permits test termination after inspections, the third declaration on ASTM test validity would be YES. All declarations would be normal and would be the same as 1A.

CONCLUSIONS: Since this is a 1G2, all conclusions would be marked NA.

COMMENTS: The comment section would indicate the test was conducted in a valid manner and the sponsor requested termination after inspection. The hours must be noted.

#### EXAMPLE SET # 3C TERMINATED PRIOR TO COMPLETION

CONDITIONS: Test was terminated prior to completion based on LAB decision or determination, and/or engine was unable to maintain operation within required test specifications. (Note: This does not apply to ASTM "special cases", i.e. certain IIIE blowby conditions or IID crankcase pressure)

#### EXAMPLE 3C

TEST TYPES: IID, IIIE, VE, VI, L38 or 1G2

The Conformance Statement:

DECLARATIONS: The same Declarations are made as in example 3A where the third declaration of ASTM validity is NO and all other declarations follow the normal pattern. At this time, the ASTM does not distinguish between a test that was conducted in an operationally valid manner but could not meet specifications due to poor oil performance. This requires the third declaration on the conformance to be NO.

CONCLUSIONS: The second conclusion would be checked indicating the test would not be used for MTAC calculations.

COMMENTS: The comments would state the specific reason for declaring the test invalid and note the test hours and reason for terminating prior to completion.

EXAMPLE 3A...TERMINATED PRIOR TO COMPLETION DUE TO SPONSOR REQUEST (Does not include 1G2)

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:
DECLARATIONS
This test was conducted in accordance with those aspects of the CMA Product Approval Code of Practice, as amended by CMA Bulletins, controllable by the laboratory. Yes $X$ No*
The appropriate combination of test power section and/or test stands have been calibrated in accordance with the applicable ASTM test procedure and amendments through the ASTM Information Letter System. Yes $\underline{X}$ No $\underline{\hspace{0.5cm}}$ *
The test was conducted in a valid manner in accordance with the applicable ASTM test procedure and amendments through the ASTM Information Letter System. Yes No $X$ *
A deviation occurred in one of the test parameters identified by the ASTM as being a special case. Yes* No $X$ (This currently applies only to specific deviations identified in the ASTM Information Letter System.)
CHECK THE APPROPRIATE CONCLUSION
<ul> <li>Operational review of this test indicates that the results should be included in Multiple Test Acceptance Criteria Calculations.</li> </ul>
(X)* Operational review of this test indicates that the results should not be included in Multiple Test Acceptance Criteria
Note: Supporting comments are required for all responses identified with an asterisk.
Comments: Terminated at sponsor request
(Signature) (Date)
(Typed Name) (Title) CMA Code of Practice Page G2

EXAMPLE 3B...1G2 TERMINATED PRIOR TO COMPLETION DUE TO SPONSOR REQUEST

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:	
<u>DECLARATIONS</u>	
CMA Product Approval Code	accordance with those aspects of the of Practice, as amended by CMA the laboratory. Yes $X$ No*
stands have been calibrated	n of test power section and/or test d in accordance with the applicable endments through the ASTM Information No*
The test was conducted in a applicable ASTM test process Information Letter System.	a valid manner in accordance with the dure and amendments through the ASTM Yes $X$ No $X$
	e of the test parameters identified by l case. Yes* No $X$ (This currently number Letter System.)
CHECK THE APPROPRIATE CONC	LUSION
(NA) Operational review of should be included in Calculations.	this test indicates that the results Multiple Test Acceptance Criteria
(NA)*Operational review of should not be included	this test indicates that the results d in Multiple Test Acceptance Criteria
Note: Supporting comments are reasterisk.	equired for all responses identified with an
Comments: <u>Terminated</u>	at XX hours per sponsor request
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2

EXAMPLE 3C...TERMINATED PRIOR TO COMPLETION (LAB DETERMINATION)

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:	
DECLARATIONS	
CMA Product Approval Code	in accordance with those aspects of the of Practice, as amended by CMA by the laboratory. Yes $X$ No*
stands have been calibrat	ion of test power section and/or test ted in accordance with the applicable amendments through the ASTM Information No*
applicable ASTM test prod	n a valid manner in accordance with the cedure and amendments through the ASTM n. Yes No $X$ *
	one of the test parameters identified by ial case. Yes* No $X$ (The currently Germanian Letter System.)
CHECK THE APPROPRIATE COM	NCLUSION
( ) Operational review of should be included in Calculations.	of this test indicates that the results in Multiple Test Acceptance Criteria
	of this test indicates that the results ded in Multiple Test Acceptance Criteria
Note: Supporting comments are asterisk.	required for all responses identified with an
Comments: <u>Terminated at</u> oil temperature within s	maintain unable to maintain specifications
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2

#### EXAMPLE SET 4 INCORRECT OIL

CONDITIONS: The TEST LAB placed the wrong oil in the test engine, i.e. formulation code of oil placed in engine was not the same as formulation code registered with the CMA Monitoring Agency.

TEST TYPES: IID, IIIE, VE, VI, L38 or 1G2

The Conformance Statement:

DECLARATIONS: The first declaration that the test was conducted in accordance to the CMA CODE should be marked NO. All other declarations should follow the normal pattern, including YES for declaration three on ASTM validity. The test validity status for using an improperly labeled oil is not clearly defined within the ASTM test procedures.

CONCLUSIONS: The second conclusion should be checked indicating the test should not be used for MTAC calculations. The 1G2 test requires an NA in both conclusions.

COMMENTS: The laboratory should clearly state the wrong oil was put in the engine.

EXAMPLE 4...INCORRECT OIL - LAB PUT WRONG OIL IN ENGINE (Refer to written description for 1G2)

Test Laboratory: Test Sponsor: Formulation/Stand No.: Test Number:
DECLARATIONS
This test was conducted in accordance with those aspects of the CMA Product Approval Code of Practice, as amended by CMA Bulletins, controllable by the laboratory. Yes No $X$ *
The appropriate combination of test power section and/or test stands have been calibrated in accordance with the applicable ASTM test procedure and amendments through the ASTM Information Letter System. Yes $X$ No*
The test was conducted in a valid manner in accordance with the applicable ASTM test procedure and amendments through the ASTM Information Letter System. Yes $\underline{X}$ No $\underline{\hspace{0.5cm}}^*$
A deviation occurred in one of the test parameters identified by the ASTM as being a special case. Yes* No $X$ (This currently applies only to specific deviations identified in the ASTM information Letter System.)
CHECK THE APPROPRIATE CONCLUSION
<ul> <li>Operational review of this test indicates that the results should be included in Multiple Test Acceptance Criteria Calculations.</li> </ul>
(X)* Operational review of this test indicates that the results should not be included in Multiple Test Acceptance Criteria
Note: Supporting comments are required for all responses identified with an asterisk.
Comments: Lab used wrong oil
(Signature) (Date)
(Typed Name) (Title) CMA Code of Practice Page G2

Test Laboratory:	
Test Sponsor:	
Formulation/Stand No.:	
Test Number:	
DECLARATIONS	
CMA Product Approval Cod	in accordance with those aspects of the e of Practice, as amended by CMA by the laboratory. Yes No*
stands have been calibra	ion of test power section and/or test ted in accordance with the applicable amendments through the ASTM Information No*
applicable ASTM test pro	n a valid manner in accordance with the cedure and amendments through the ASTM m. Yes No*
A deviation occurred in the ASTM as being a spec only to specific deviations identified in the ASTM information	one of the test parameters identified by ial case. Yes* No (This currently applies ion Letter System.)
CHECK THE APPROPRIATE CO	NCLUSION
<ul><li>( ) Operational review should be included Calculations.</li></ul>	of this test indicates that the results in Multiple Test Acceptance Criteria
	of this test indicates that the results ded in Multiple Test Acceptance Criteria
Note: Supporting comments are asterisk.	required for all responses identified with an
Comments:	
(Signature)	(Date)
(Typed Name)	(Title) CMA Code of Practice Page G2