

I. About

This template allows engine manufacturers to submit production line testing data in a simple, consistent form. Information entered by the submitter, the template performs the required CumSum and sample size calculations and indicates the current status of the test.

It is intended that a copy of this template be created for each engine family for which you are required to report testing results. Please include the engine family name in the submission file name. 40 CFR Part 91.509 (e) requires that this information must be submitted on a quarterly basis. It is intended that one copy of a template be maintained for each engine family, per year. For instance, the file submitted for the second quarter will contain all test results previously submitted for the first quarter with the results from the second quarter added on. The template provides a field to indicate the quarter at the engine test level.

Please note that the instructions in this document are specific to the Marine SI template.

II. General

- The primary worksheet for entering production line testing data is the worksheet labeled 'Submission Template'. Only modify values in cells that are white. All other cells contain either labels or calculated values.
- The 'Notes' worksheet provides space for a manufacturer to provide any additional notes or relevant information regarding an engine family's production line testing information.
- The resulting calculations, including an indication of whether the test results yield a status of Pass, Fail or No Test, are displayed in the 'Calculations' worksheet.

III. Entering PLT Test Information

At the top of the 'Submission Template' worksheet, there are spaces to enter general information about the test you are reporting. Please provide as much information as possible. These fields include:

- Manufacturer contact information;
- Engine family identifier;
- Projected annual production volume; and
- Indication if this engine family is a carry over engine family.

If you have indicated in the template that the engine family is a carry-over engine family, for the first engine test results of the final engine test from the previous year's equivalent engine family. Your required sample size is based on this. If you have indicated that the engine family is a carry-over engine family, the first row in the calculations worksheet will appear in pink.

IV. Entering PLT Engine Test Results

Each PLT test is comprised of multiple tests of individual engines within the engine family being tested. Begin entering data in the first row (beginning in cell D23 of the 'Submission Template' worksheet). Be sure to enter specific information about the order in which they occurred, as the template's CumSum calculations depend on the correct order. In an

the order in which they occurred, as the template's CumSum calculations depend on the correct order. Do not skip rows as you enter your results.

The following data fields are available for each engine test. Fields that are required by federal regulations and CumSum calculations are indicated. The official reporting requirements can be found in 40 CFR Part 91.509.

- Test Number (required); this should be numeric and sequential
- Test Date (required)
- Test Time
- Test Quarter
- Engine ID (required)
- Build Date (required)
- Service Hours Accumulation (required)
- Service Hours Location (required)
- Include in CumSum? Indicator (required)
- HC+NOx Initial Result (required)
- HC+NOx Final Result (required)
- HC+NOx Emission Limit or FEL (required)
- Unit of measure (g/bhp-hr or g/kW-hr)
- Deterioration Factor
- Test Location
- Test Contact
- Invalid Test Indicator (required -- must be yes if test is declared invalid)
- Invalid Reason
- Failure Reason
- Remedy
- Repairs
- Test Comments

V. The Calculations Worksheet

The 'Calculations' worksheet checks the data that you enter and attempts to determine the current status of your test. Your test will appear to be in exactly one of three possible statuses -- FAIL, PASS, or OPEN.

● **FAIL:** Your PLT Test will be in a failing status if, for one or more pollutants, you had consecutive engine tests where the calculated CumSum statistic exceeds the calculated Action Limit value. Once a test has reached a fail status, tests will not change it.

● **PASS:** Your PLT Test will be a passing status if, for all required pollutants, the actual number of included engine tests is greater than or equal to the required test sample size (N), and for all required pollutants, the mean result is less than or equal to the provided emission limit or FEL.

● **OPEN:** Your PLT Test will remain in an open status if it has not yet reached a fail or pass status.

VI. Troubleshooting

If you are experiencing odd or unexpected results in the 'Calculations' worksheet, please check the following:

- Have you entered all engine tests sequentially without skipping rows?
- For each engine test, have you entered the Final Result and Emission Limit, and have you indicated if the test should be included in the CumSum?
- Have you inadvertently marked an included test as Invalid?
- If the required sample size does not appear to be calculating correctly, verify that you have not entered a large number of tests that are marked as Invalid.

• If the required sample size does not appear to be calculating correctly, verify that you have not entered a 0 for Annual Production Volume.

EPA Form No. 5900-91

The public reporting and recordkeeping burden for this collection of information is estimated to average 12 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Avenue, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

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Submission Template

Production Line Testing

Manufacturer Data Submission Template **(Marine SI)**

PLT Test Information

Manufacturer:
PLT Test Contact:
Email Address:
Phone #:

Comments:

PLT Engine Test Results

Test Number	Test Date	Test Time	Test Qtr	Engine ID
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Submission Template

Engine Family:

Projected Annual Production Volume:

Is this a carry-over engine family?

Build Date	Service Hours Accumulation	Service Hours Location	Include in CumSum?	HC+NOx Initial Result	HC+NOx Final Result	HC+NOx Emission Limit/FEL
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Submission Template

no

Unit	HC+NOx Det. Factor	Test Location	Test Contact	Test Invalid?	Invalid Reason	Failure Reason
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Submission Template

Remedy Repairs Test Commen

Production Line Testing

Calculated Results Data

Current PLT Test Status:

Engine Family:

0

HC+NOx (passing status?)

#N/A

Current PLT Test Status:

#N/A

#N/A

Notes:

* Number of included HC+Nox tests (n) is less than the required number (N).

HC+NOx - Calculations

Actual Sample Size (n)	Required Sample Size (N)	Mean Result	Standard Deviation	Prior CumSum	CumSum	Action Limit	Sample Requirement Met?	HC+NOx Fail?
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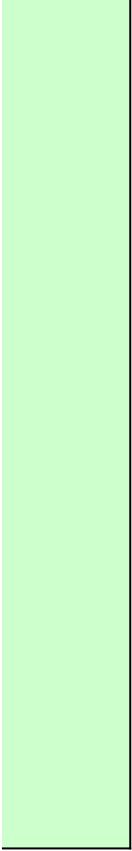


HC+NOx (N-met?):

Maximum Required Tests:

HC+NOx Pass?

Warnings



Production Line Testing

Manufacturer Notes (*Marine SI*)

Please provide any additional notes here





