



Subject: Quality Failure Notice Response

PURPOSE:

The Quality Failure Notice (QFN) is a request for corrective action by MACI to the supplier. The format is designed to help suppliers find and countermeasure all possible causes.

SCOPE:

A Quality Failure Notice (QFN) is issued by MACI for product that is out of specification. It is the suppliers' responsibility to complete the QFN Response to MACI by the due date or contact the Quality Assurance Engineer if an extension is needed.

CONTENT:

The QFN Response is to be completed as follows:

- ① Company: Company name
- ② QFN No.: MACI reference number – should be copied to all pages
- ③ Contact: Quality Assurance contact at supplier
- ④ Date written: Date QFN is issued
- ⑤ Reply required By: Due Date for final QFN submission to MACI

Note: If supplier is unable to complete QFN by due date Supplier must contact the Quality Engineer at MACI for an extension.

- ⑥ Part name: Name of defective part
- ⑦ Part Number: MACI part number
- ⑧ Date Failure Occurred: Date defect was discovered
- ⑨ Location Failure Occurred: Location failure occurred at
- ⑩ Mfg. Date or Lot Number: Supplier traceability information
- ⑪ Quantity NG: Quantity defective.
- ⑫ Repeat occurrence: Reoccurrence status of defect.



Subject: Quality Failure Notice Response

- ⑬ Failure Rank:
- High = Line stop situation at MACI or potential Claim from MACI's customer or the field (end user of the product).
 - Medium = Low freq. Defect that will be detected in MACI process or non-functional defect.
 - Low = Information only, no reply required.
- ⑭ Description of Concern: Details of problem with supporting data.
- ⑮ MACI Approved: Approval by MACI after QFN is closed.
- ⑯ MACI Issued: MACI QA associate issuing QFN.
- ⑰ Supplier Sign-off: Supplier person responsible for QFN.
- ⑱ Cause and Effect Diagram: List possible causes with regard to Man, Method, Measurement, Machine, Material and Environment.
- ⑲ Possible Causes: List items from Cause and Effect Diagram.
- ⑳ Explanation: List details that support whether the cause contributes to the problem.
- ㉑ Judge: Indicate whether the possible cause is a contributing factor to the problem. Use the following key:
- X = Strong Contributing Factor
 - △ = Possible or Weak Contributing Factor
 - = No Correlation with Problem
- ㉒ Process Flow: List out process flow of problem area.
- ㉓ 5 Why Analysis: List the defect, then list reasons why the defect occurred and why the defect was not detected at the supplier.
- ㉔ Root Cause: Summary of the root cause from the above tools.
- ㉕ Interim Countermeasures: List temporary countermeasures taken. This should include containment actions (sorting) and their results.



Subject: Quality Failure Notice Response

- ②⑥ Permanent Countermeasures: List permanent countermeasures taken. Occurrence and detection should both be addressed. Rank each countermeasure taken with the following key. Include the date the countermeasure is implemented.
- = Mechanical or Errorproof
△ = Process parameter change
X = Training Only
- ②⑦ Documentation Update: List all documents that are updated due to countermeasures implemented.
- ②⑧ Verification of Effectiveness: List method(s) used to confirm countermeasure is effective. Examples of verification may include process auditing, product auditing (sorting), control charts, etc. Include results on QFN.
- ②⑨ Standardization: List activities taken to standardize countermeasures taken. These should include crossline actions to similar products/processes.

The supplier's reply to a QFN is expected by the due date assigned by MACI. If analysis and/or countermeasures are not determined by the due date and the supplier requires more time to complete the QFN an extension may be granted if a progress report is submitted to MACI QA department. This progress report should contain details including:

- Analysis completed
- Containment actions taken and sorting results
- Countermeasures completed
- Countermeasures being investigated (include timeline)

Any problems with analysis, countermeasure implementation, or completing the QFN should be communicated with the MACI QA department.



Subject: Quality Failure Notice Response



Michigan Automotive Compressor, Inc.
Quality Failure Notice Response

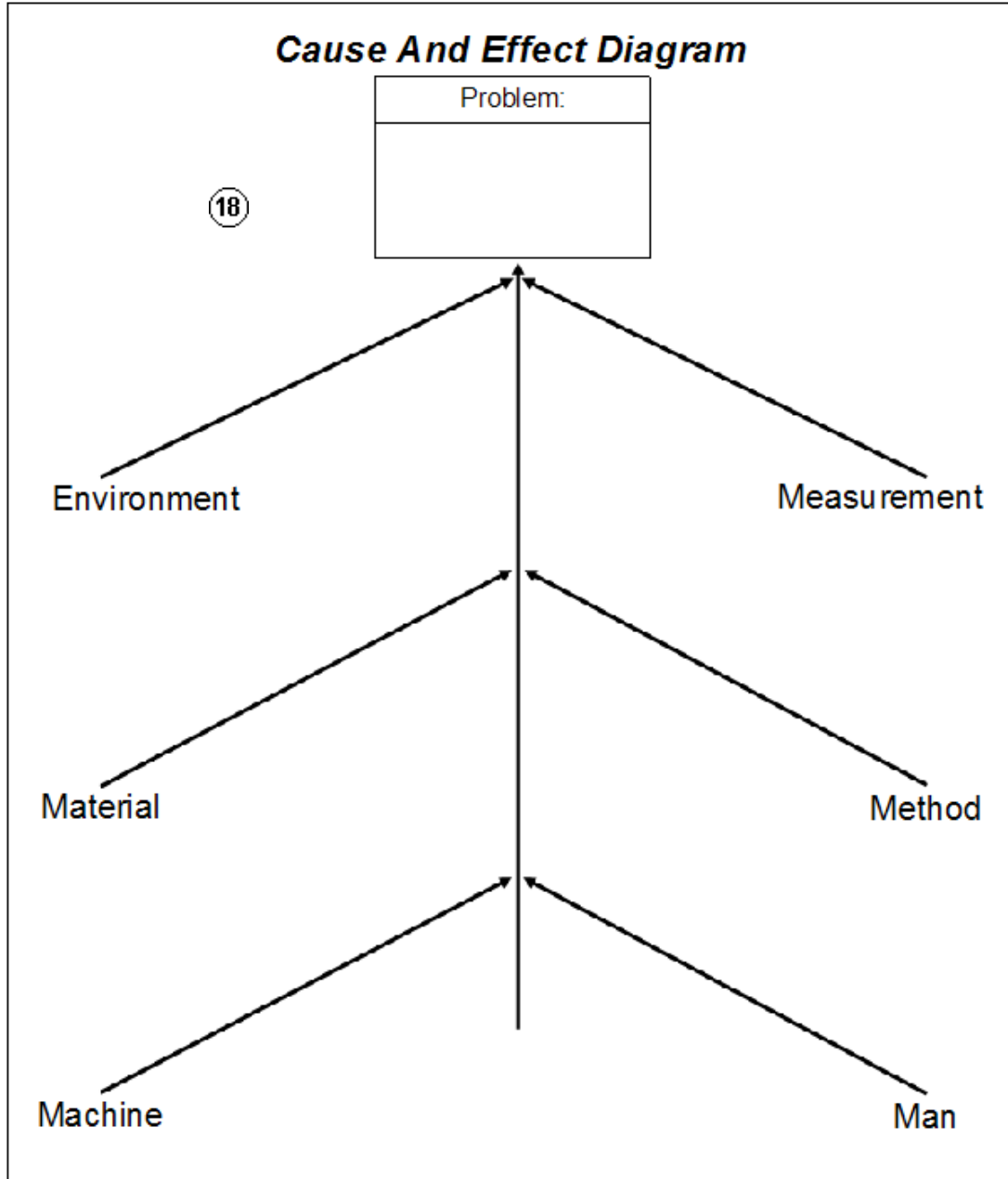
Contact Information		QFN No.: (2)
Company: (1)		Reply Required By: (5)
Contact: (3)	Date Written: (4)	
Problem Description		
Part Name: (6)		Part Number: (7)
Date Failure Occurred: (8)		Location of Failure: (9)
Mfg Date or Lot No.: (10)		Quantity NG: (11)
Repeat Occurrence: Yes / No (12)		
Failure Rank: (Circle one)	High (Line stop or MAXI Customer claim) Medium (Low freq. detected at MACI/non-functional) Low (F.Y.I. No reply required)	
Description of Concern:		
(14)		
MACI Approved	MACI Issued	Supplier Sign-off
(15)	(16)	(17)
Please reply using QFN form pp. 2-5		
Please email reply to QA Engineer		



Subject: Quality Failure Notice Response



Cause And Effect Diagram





Subject: Quality Failure Notice Response



Problem Definition		Judge Key: X = Strong Contributing factor Δ = Possible contributing factor O = No correlation	
	Possible Causes	Explanation	Judge
Machine	①9	②0	②1
Material			
Environment			
Man			
Method			
Measurement			



Subject: Quality Failure Notice Response



Process Flow	5 Why Analysis	
<p>②</p>	<p>Defect</p> <p>③</p>	
	Occurrence	Non-detection
	Why?	Why?
	Why? ↓	Why? ↓
	Why? ↓	Why? ↓
Why? ↓	Why? ↓	
<p>Root cause: (from Cause & Effect Diagram / Problem Definition / 5 Why Analysis)</p>		
<p>④</p>		



Subject: Quality Failure Notice Response



Interim Countermeasures

Action Items	Results	Date
②⑤		

C/M Type Key: **O** = Mechanical/Error Proof
Δ = Process Parameter Change
X = Training Only

Permanent Countermeasures

	Action Items	C/M Type	Date
Occurrence	②⑥		
Detection			

Documentation Update (FMEA, Control Plan, Work Instructions, etc.)

Item	Date
②⑦	

Verification of Effectiveness

Method	Results	Date
②⑧		

Standardization (cross-line activity, etc.)

②⑨

Attach Additional Pages If Necessary