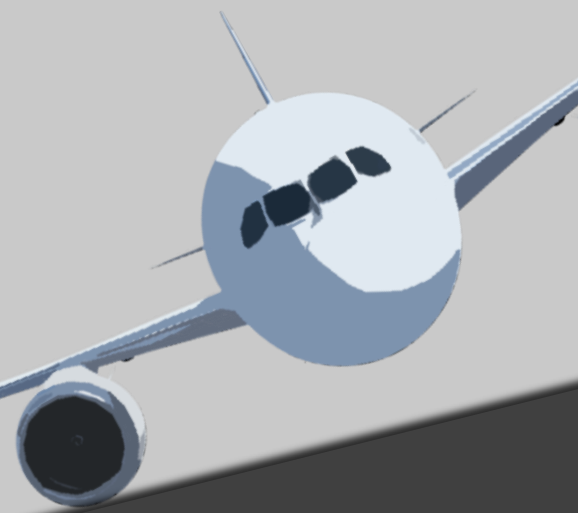




aero composites

SQR

supplier **quality**
requirement



003

Supplier
Rating System

Effective Date

29-Jul-2024

WARNING

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The document is also available on our website at the following link:

<https://www.ctrm.com.my/ctrm-vendor.php>

REVISION HISTORY

Revision	Date	Description of Changes
NC	01-Jan-2020	Initial Release
A	01-Apr-2021	Revise on PPM target.
B	01-Feb-2022	Revise on PPM target. Add CAT Report
C	30-Jan-2023	Revise on PPM target. Revise On-Time Delivery Window
D	29-July-2024	Update SQR template 4.1 -Revise PPM range 7.0 - Add Supplier Recognition Award categories 4.2, 4.3, 5.0 - General paraphrase

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1.0 Introduction

This document defines CTRM AC minimum expectations and delivers a formal process by which CTRM AC will measure and communicate performance to suppliers through disciplined methods. The Supplier Rating System defines the standard processes and measurements, which will be monitored and are critical components of CTRM AC's supplier development initiatives. By establishing a process for monitoring, measuring and communicating supplier performance, CTRM AC can identify areas for improvement while also recognizing outstanding performance.

2.0 Purpose

The purpose of this manual is to clearly define CTRM AC expectations for supplier performance.

3.0 Scope

All active and approved suppliers providing direct materials, parts or services that directly influence the quality of CTRM AC manufactured parts.

4.0 Supplier Rating System

- a. CTRM AC monitors supplier's performance on a monthly basis.
- b. The rating system will enable CTRM AC to manage oversight activities, including but not limited to the following:
 - Audit frequency
 - Corrective action plans
 - Continuous improvement initiatives
 - Commitment to Supplier Improvement Plan (SIP)
 - Place new business / work package
 - Identify suppliers that need CTRM AC assistance.
 - Identify suppliers that deserve recognition
- c. Suppliers will be rated on the following:
 - **Quality Performance**
Quality Performance will be tracked using PPM (Parts per Million) measurement.
 - **Delivery Performance:**
On-time delivery (OTD) is measured against late deliveries. Suppliers are required to provide 100% on-time delivery.
- d. The supplier performance Rating Card will show: (See Attachment E)
 - Data and Graph of Supplier Quality (PPM).
 - Data and Graph of Supplier Delivery (% OTD)
 - An Overall Supplier Performance Rating

4.1 Quality Performance (PPM)

Conformity for item of supplier shipped quantity at CTRM AC.

CTR M AC calculates a current month and rolling 6-month PPM figure using the following calculation:

$$PPM = \frac{\text{Number of parts rejected}}{\text{Total number of parts received}} \times 1,000,000$$

A supplier reject can be generated from one of the following sources:

- CTR M AC Incoming Quality Control or CTR M AC production
- CTR M AC's Customer Return or Complaint

NOTE: Only those rejects that are documented via a written non-conformance report (GDR, SCAR) are included in this calculation.

For pre-preg which does not comply with the specification, if more than 10% of the roll is affected, will be considered as 1 roll defect and counted in supplier's PPM.

The following table describes the range for PPM Performance levels:

Level	Range
GREEN	≤ 1,800
AMBER	1,801 – 7,000
RED	> 7,000

4.2 Delivery Performance

The calculation applies to each individual Purchase Order (PO) Number and PO due date. This is reported as a percentage of the total number of PO's received within the On-Time Delivery window.

The due date tracked for monthly OTD performance, so it is important for the supplier and CTR M AC buyer to agree on this date on the PO. This date is the date when CTR M AC expects the supplier ship out parts from their facility.

The On-Time Delivery Window: On-Time delivery window of 7 days early up to 7 days late (+/- 7 days.).

CTR M AC calculates a current month and rolling 6-month OTD figure using the following calculation:

$$OTD\% = \frac{\text{Number of schedule line completely received in the 'On time window' during a period}}{\text{Total number of planned schedule lines during the same period}} \times 100$$

The following criteria will reflect as appropriate the OTD Calculation:

No.	Item	Description
1	Missed delivery windows (Late / Early deliveries) +/- 7 days	Exceed /earlier agreed timeframe
2	Incorrect shipping quantity (Over / Short)	Supplier supply over /short quantity from the order placed.
3	Incorrect / missing documentation	Incomplete documentation & impact to delivery activities (such as invoice, CofC, pick list etc.)

The following table describes the range for OTD Performance levels:

Level	Range
GREEN	100.0%
AMBER	90.0% - 99.9%
RED	< 90.0%

Service Discrepancy Report (SDR) form will be issued by CTRM AC Procurement for suppliers with monthly delivery performance below 100.0% to request supplier’s root cause and corrective action in order to prevent recurrence of similar issues.

NOTES:

Supplier may deviate from the delivery schedule under the following circumstances:

- a. Supplier makes a delivery adjustment request.

Supplier can request to change a previously fixed delivery quantity / date, as long as:

- The request is made in good time normal expectation within 48 hours of PO being issued.
- CTRM AC production is not disrupted in any way.

- b. CTRM AC makes a delivery adjustment request.

- If CTRM AC requests to change a previously fixed delivery quantity or date, and the supplier cannot fully meet the requirement, then that delivery schedule shall be adjusted and agreed upon to facilitate On-Time Delivery.

- c. Other circumstances which may cause a delivery deviation.

If the supplier cannot deliver because of an issue that is AGREED to be CTRM AC responsibility then that delivery is NOT included in the calculation. e.g. PO submitted to supplier not in supplier lead time.

4.3 6 Months Performance & Overall Performance

The 6 month performance is determined by the lowest criteria calculated (each evaluated using 6 month total). For example, where OTD is GREEN, but Quality is AMBER, respective month’s performance will be defined as AMBER, and vice versa.

Overall Performance for True Red Supplier is defined by 7 consecutive months where each evaluated using 6 month totals.

Performance	Quality (PPM)	On Time Delivery	Overall Supplier Rating
GREEN	≤ 1,800	100.0%	Well Performing
AMBER	1,801 – 7,000	90.0% - 99.9%	Needs Improvement
RED	> 7,000	< 90.0%	Underperform

5.0 Periodic review of supplier performance's result

Based on the results of periodic review of supplier performance (On Time Delivery and quality issues), CTRM AC shall launch relevant action to underperforming supplier depending on risk level, but not limited to:

- Performing product audit / system audit in any time
- Onsite quality fix / onsite meeting
- Launch and monitor supplier improvement action
- Set up scheduled conference call with supplier, CTRM AC and customer
- CTRM AC escalation process according to guideline in Attachment B and C is applied
- Initiate Supplier Improvement Plan (SIP) as per guideline in attachment A, B & D
- Escalate to CTRM AC's customer for customer's selected supplier
- Perform capacity and capability assessment during business review
- Build up buffer stock at supplier plant
- Supplier to provide recovery plan in accordance with priority list provided by CTRM AC
- Dual source / [Transfer of Work \(ToW\)](#)

6.0 Cost of Poor Quality and Delivery

CTRM AC may share associated costs due to the supplier's failure to meet CTRM AC's quality requirements. Below is a list of typical events or examples that may be considered as associated costs, but not limited to:

- Rework
- Line / Production disruption
- Cost of increased inspection
- Costs associated with CTRM AC's customer returns
- Late Delivery

- Expedited freight costs incurred as a result of supplier past due parts, avoidance of past due parts, or discrepant material
- Additional Manpower
- Downtime
- Overtime costs required to meet customer requirements as a result of supplier fault past due parts or discrepant material
- Outside processing required
- Rework at customer premises, travel, manpower
- Reimbursement of all charges from customer
- Air Freight

7.0 Supplier Recognition Program (SRP)

- a. The Supplier Recognition Program (SRP) is recommended to be an annual or once every 2 years program to recognize supplier performance as measured in CTRM AC Supplier Performance Rating System. [Candidates for SRP recipients shall be notified through email and CTRM website prior SRP event commence.](#)
- b. The Supplier Recognition Program honors suppliers that have made significant contributions to advancing or supporting key CTRM AC's initiatives, CTRM AC's products, CTRM AC's processes and CTRM AC's customer satisfaction.
- c. The selection committee for the Supplier Recognition Program includes CTRM AC Management from Supply Chain and Supplier Management Division.
- d. CTRM AC will issue and award certificate to the deserved suppliers.

CTRM AC Supplier Recognition Program will be awarded for below categories

- **Supplier Excellence Award**

Given to suppliers who meet on-time delivery requirements, conform to quality requirements, and prove continual improvement through significant, documented value-add projects

- **Supplier Outstanding Quality Performance Award**

Given to suppliers who able to maintain Green status and 0 PPM for the last 12 months or more.

- **Supplier Outstanding Delivery Performance Award**

Given to suppliers who able to maintain Green status and 100% On Time Delivery for the last 12 months or more.

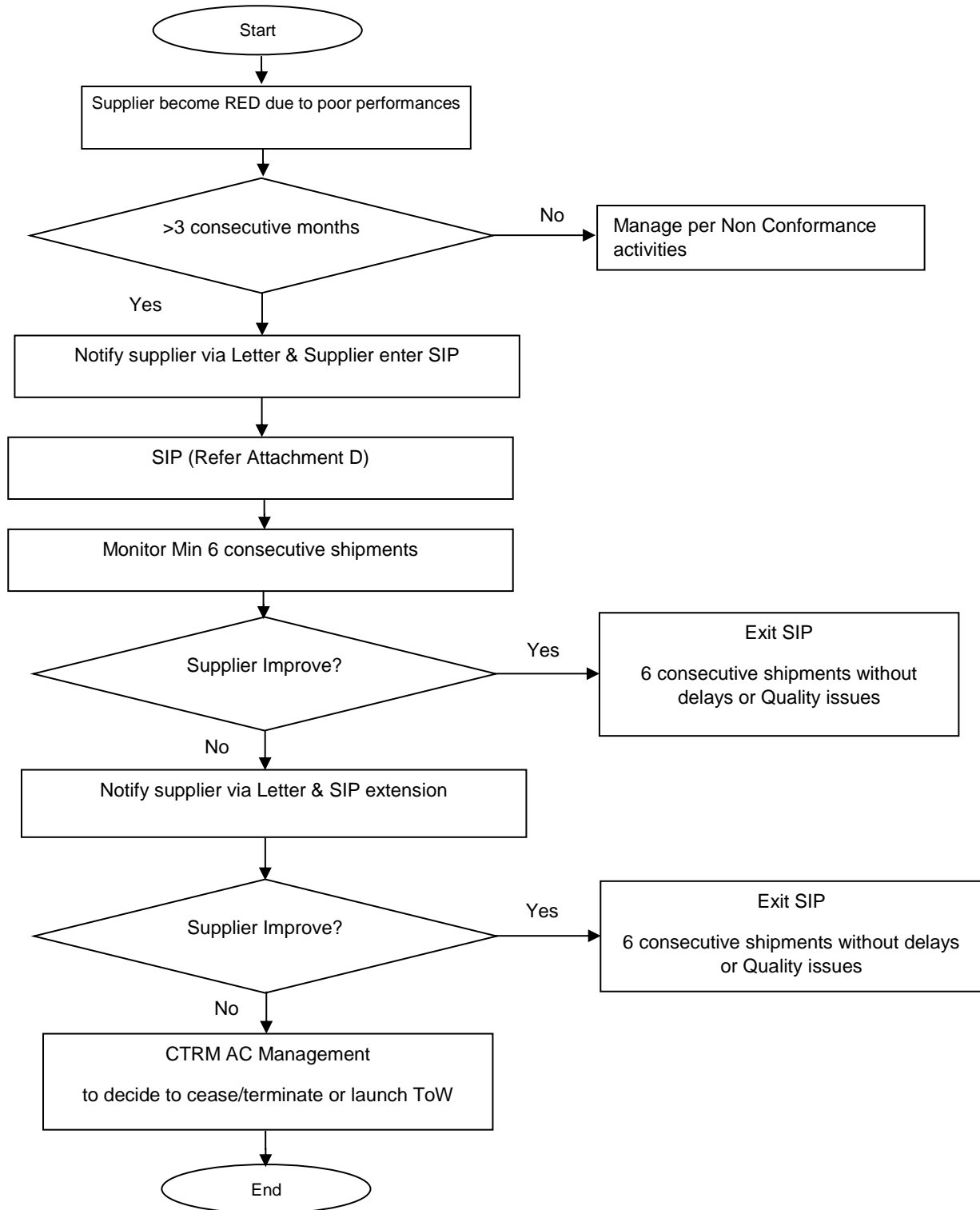
- e. Depending on overall supplier performance for respective years, award categories may expand to several other categories including, but not limited to:
- Supplier Outstanding Quality Performance Award (Raw Material)
 - Supplier Outstanding Quality Performance Award (Fabricated Parts)
 - Supplier Outstanding Delivery Performance Award (Raw Material)
 - Supplier Outstanding Delivery Performance Award (Fabricated Parts)
 - Best Collaborator, and,
 - Other award categories deemed appropriate.
- f. In absence of qualified suppliers as per criteria, this program shall be deferred to the following year.

8.0 Supplier Performance Using CAT (Catastrophic) Format

- a. CTRM AC has established and improvised CAT Report from one of our main customers to complement CTRM AC environment as an assistance tool in determining how far supplier delays will impact the production line. This report also consists inventory status of health for metallic and BoF parts.
- b. This report was reviewed in timely manner with all stakeholders including supplier if necessary to finalize inventory impact by CAT level and determine way forward.
- c. Example of actions decided during this review includes, but not limited to; audits, assessments, dual sourcing and transfer of work (ToW). Each actions are put together depending on the specific issues.

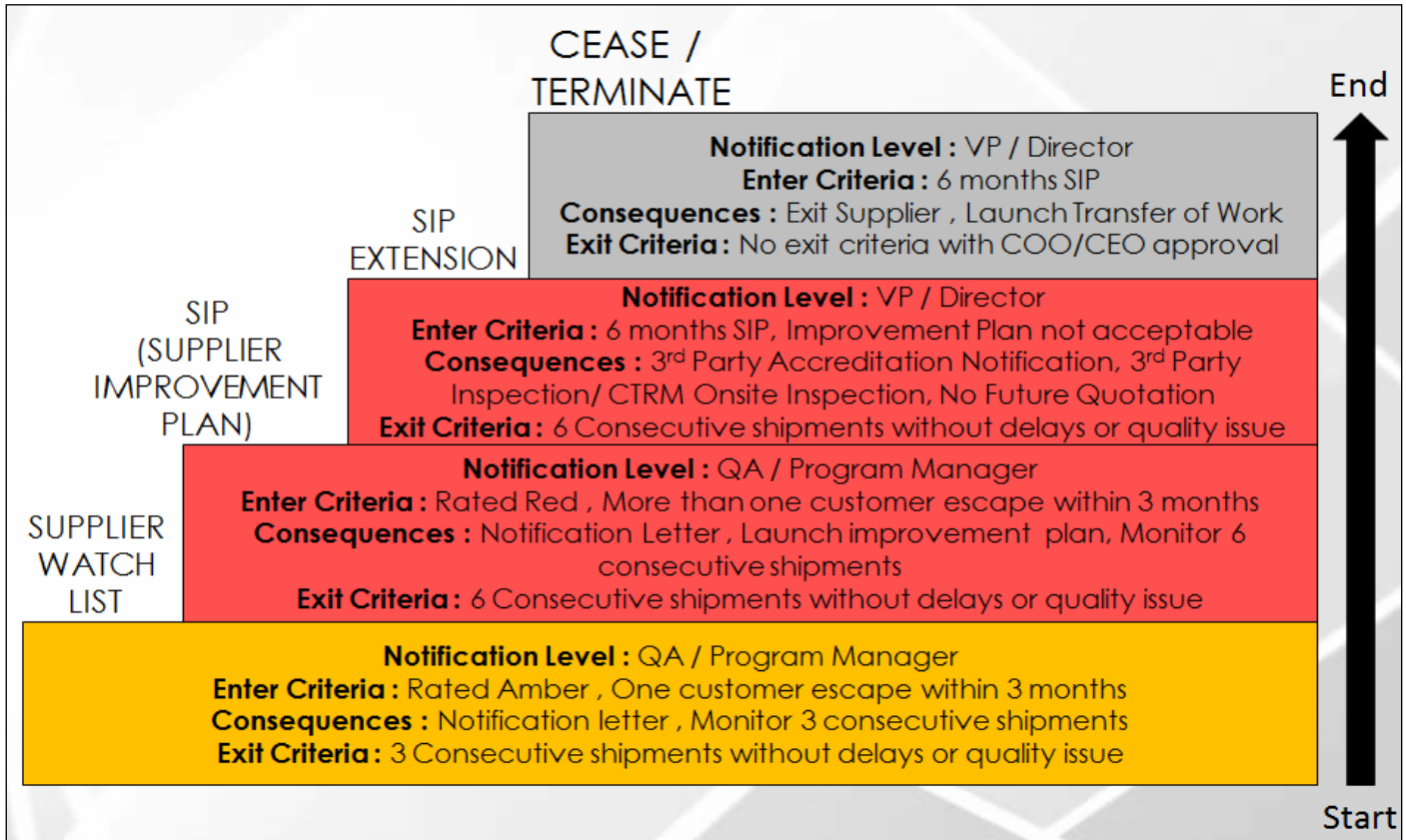
Category	Condition
CAT 5	<ul style="list-style-type: none"> • Past due PO ETD
CAT 4	<ul style="list-style-type: none"> • Quantity on hand < min stock
CAT 3	<ul style="list-style-type: none"> • Min requirement production for one week
CAT 2	<ul style="list-style-type: none"> • Air freight impact • Zero inventory (production & warehouse)
CAT 1	<ul style="list-style-type: none"> • Stop Customer Line

Attachment A: Process Flow for RED Suppliers as below. For guideline only.



Attachment B: Escalation Process. For guideline only.

Supplier performance shall be regularly reviewed. This includes communication with suppliers regarding their level of performance and inquires improvement actions when performance is considered unsatisfactory. This shall be followed-up to ensure that information is used for improvement activities.



Attachment C: Notification on escalation of RED letters Supplier table.

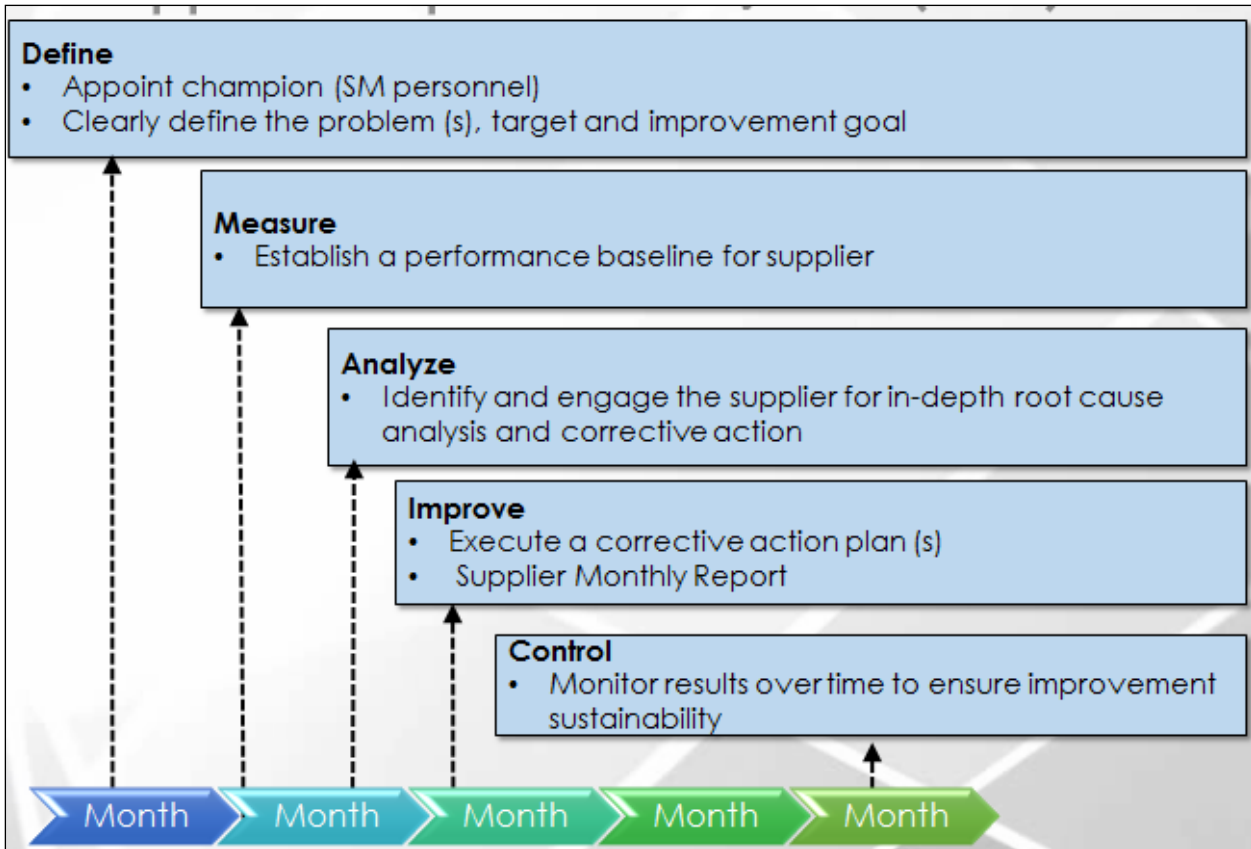
CTRMAERO AC has established proactive escalation process and can be used / recommended to define the process and actions for issuing and conducting reviews to suppliers who does not meet quality and delivery requirement.

For each of these levels, related letters are submitted describing the deviation and required next steps. Each letter has to be acknowledged, confirmed and appropriate actions have to be submitted.

Letter	*Condition	CTRMAERO AC		SUPPLIER / CUSTOMER	
		From	CC	To	CC
1st Letter	<ul style="list-style-type: none"> Poor Performance based on Supplier Rating Card (Red for 3 consecutive months), Product Conformity Audit, and Non – Conformance activity. CTRMAERO AC production / process interruption due to quality issue or parts shortage. Supplier not under initial stage control 	HoD	HoDiv	Program / Quality Manager	CEO
2nd Letter	<ul style="list-style-type: none"> Risk to CTRMAERO AC and CTRMAERO AC customers. (quality & delivery) Supplier's failure to demonstrate improvement in performance to acceptable levels with agreed timeline 	HoDiv	CEO COO	CEO	Customer (CTRMAERO Account's Customer)
3rd Letter	<ul style="list-style-type: none"> Risk to CTRMAERO AC, CTRMAERO AC's customers, and OEM.(quality & delivery) Continual / on-going performance issues of quality, delivery and commercial. Resolution of the issue is not completed within the timescales agreed Performance deteriorates, without any commitment to recover 	COO	CEO	CEO	Customer's Quality / Supply Chain
4th Letter	<ul style="list-style-type: none"> Continual / on-going performance issues of quality, delivery and commercial. Impact to CTRMAERO AC, CTRMAERO AC customers, OEM & Airworthiness Supplier's service termination for CTRMAERO AC Program if necessary. 	CEO	-	Customer	IAQG – OASIS (International Aerospace Quality Group – Online Aerospace Supplier Information System)

** Recommendation only based on concern / Appropriate SQA HoD / HoDiv approval prior implementation*

Attachment D: Generic Supplier Improvement Plan (SIP) as figure below.



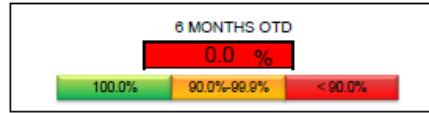
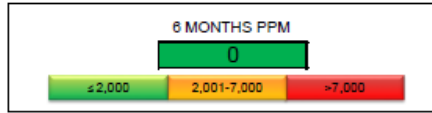
Attachment E: CTRM AC's Supplier Rating Card



SUPPLIER RATING CARD

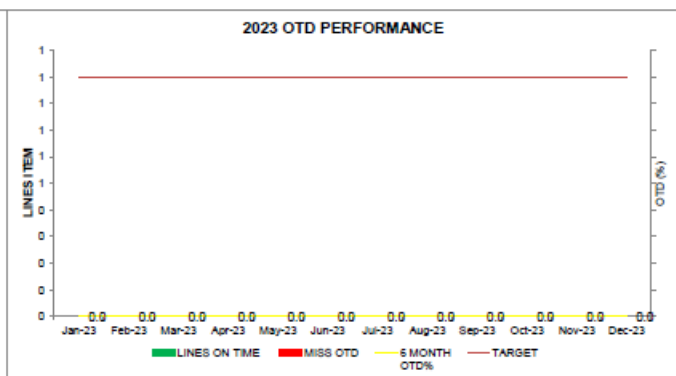
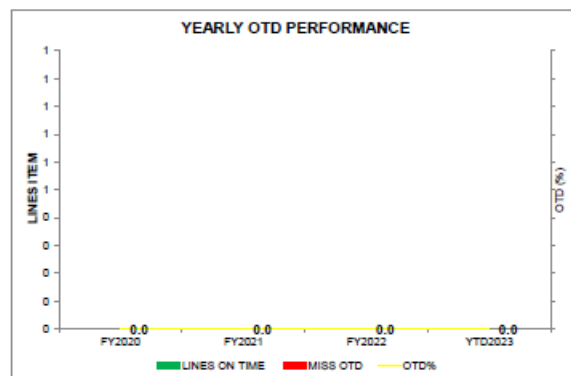
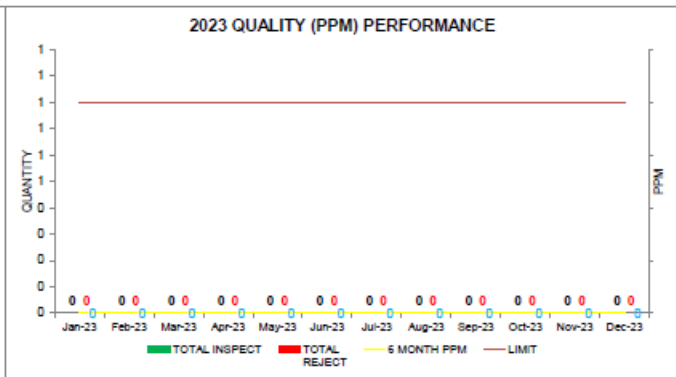
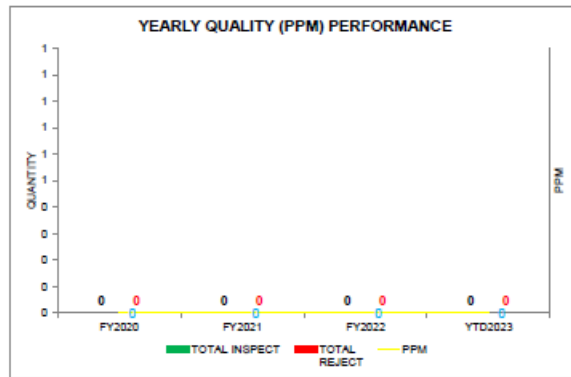
Jan-23

Supplier Code: Mandatory Field Supplier Name:



OVERALL PERFORMANCE

MONTH	TOTAL INSPECT	TOTAL REJECT	PPM	GDR NO	LINES ON TIME	LINES DUE	OTD%	6 MONTH PPM	6 MONTH OTD%	6 MONTH PERFORMANCE
Jan-23	0	0	0	0	0	0	0	0	0.0	0
Feb-23	0	0	0	0	0	0	0	0	0.0	0
Mar-23	0	0	0	0	0	0	0	0	0.0	0
Apr-23	0	0	0	0	0	0	0	0	0.0	0
May-23	0	0	0	0	0	0	0	0	0.0	0
Jun-23	0	0	0	0	0	0	0	0	0.0	0
Jul-23	0	0	0	0	0	0	0	0	0.0	0
Aug-23	0	0	0	0	0	0	0	0	0.0	0
Sep-23	0	0	0	0	0	0	0	0	0.0	0
Oct-23	0	0	0	0	0	0	0	0	0.0	0
Nov-23	0	0	0	0	0	0	0	0	0.0	0
Dec-23	0	0	0	0	0	0	0	0	0.0	0



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