

Vendor Change Notification

Vendor Training



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Program Overview

- The Problem:
 - ▶ There is no formal method to notify Micron family of companies and joint venture partners when a vendor has changed a part, method, procedure or other critical elements on Micron specific configured tools.
- Impact to business:
 - ▶ The Micron family has been at times surprised by vendor changes.
 - ▶ Increases installation time when tools arrive with different configurations.
 - ▶ Makes it difficult for Micron family of companies to stop or delay changes that could negatively affect product

Program Overview

- The solution: Vendor Change Notification (VCN)
 - ▶ A system that allows vendors to notify the Micron family of companies of planned changes to new tools builds
 - ▶ In turn, this will streamline communication between vendors and area engineering teams concerning upcoming changes to tools.

Project Overview

- When do vendors need to implement this process?
 - ▶ Immediately upon completion of this training
- Consequences for not implementing:
 - ▶ **Non-compliance with this process will result in low marks on the Vendor Change Management portion of the Vendor Scorecards, (one of the systems used when selecting tools for future use).**

Roles & Responsibilities

- Target Audiences for this Training are:
 - ▶ Key tool Vendors the Micron Family of Companies may make future purchase from.
- At the end of this training, Vendors will be able to:
 - ▶ Submit a change.
 - ▶ Understand Micron family of Companies expectations of a properly filled out template.
 - ▶ Know who to submit the proposed changes to.
 - ▶ Understand what communication will be made throughout this process.

Submit a Change

Submit a Change

- WHEN do changes need to be submitted?
 - ▶ It is highly preferred change be submitted 3-6 months BEFORE the changes take place in the Vendor manufacturing line.
 - If it is determined a change requires an internal (Micron) qualification, this process could take as long as 6 months
 - ▶ Wafer path, process control system, and facilities hookup affected changes are considered high risk and require qualification.
 - ▶ Micron Family of Companies reserves the right to reject any change.

Submit a Change

- To submit a proposed change, go to the Micron.com Web site, (instructions for this will follow this presentation) and fill out the VCN form.

Proposed Change Form

Proposed Change Template

Vendor Change Request Form

Title: *

Vendor Company: *

Origination Date: *

Originator Name: *

Originator E-Mail: *

Area: *

CFA
CMP
CVD
Dry Etch

Affected Models: *

Category: *

Risk Level: *

Level 1 Level 2 Level 3

[Change Level Class Descriptions](#)

Proposed Change Description:(Max Length 256): *

Proposed Change Reason: *

Proposed Change Reason Desc:(Max Length 256) *

Parts Change Involved?

Parts Change Comments:(Max Length 256)

Old Vendor Part #:

New Vendor Part #:

All Fields marked with *
are required

Proposed Change Template

Old Vendor Part #:

Interchangeable?

Effective Change Date: *

Cost Impact?

Safety Issue?

Need Additional Training?

Require Facilitation Changes?

Comments:(Max Length 256)

Submit >

New Vendor Part #:

Machines Affected:

Delivery Date Affected?

Cost Impact Comments:(Max Length 256)

Safety issue Comments:(Max Length 256)

Additional Training Comments:(Max Length 256)

Facilitation Changes Comments:(Max Length 256)

All Fields marked with * are required

How to Fill out Form

The screenshot shows a web form with the following fields and values:

- Title:** * (empty text box)
- Vendor Company:** * (empty text box)
- Origination Date:** * (empty text box with a "Date" button next to it)
- Originator Name:** * (text box containing "RANDLE")
- Originator E-Mail:** * (text box containing "rburton@micron.com")

Title: Short description of change. Suggest including any identifying tracking numbers for future review.

Vendor Company. Please be consistent when filling out this field, makes it easier to create reports.

Originating Date: This is the date when the form is being created.

Originator Name: Will be auto populated when you are in your account

Originator E-Mail: Will auto populated originator's email, can add others if needed.

How to Fill out Form

Area: *

CFA
CMP
CVD
Dry Etch

Affected Models: *

Category: *

Risk Level: *

Level 1 Level 2 Level 3

[Change Level Class Descriptions](#)

Proposed Change Description:(Max Length 256): *

Proposed Change Reason: *

Proposed Change Reason Desc:(Max Length 256) *

Area(s)*:Please specify all area(s) that could be affected (CVD, Dry Etch, Photo, etc.). Multiple area can be selected.

Affected Models*:All TOR models that may be affected that Micron/IMFX/TECH may purchase in the future.

Risk Level*:Please see Risk Level table for a detailed explanation.

Category*:Please specify the type of change.

Proposed Change Description: Please explain what the proposed change will involve.

How to Fill out Form

Proposed Change Reason: *	Proposed Change Reason Desc:(Max Length 256) *
<input type="text"/>	<input type="text"/>
Parts Change Involved?	Parts Change Comments:(Max Length 256)
<input type="text" value="No"/>	<input type="text"/>
Old Vendor Part #:	New Vendor Part #:

Proposed Change Reason*: Please specify what is motivating the proposed change.

Proposed Change Reason Description*: Please describe what is motivating the proposed change.

Part Change?: Please indicate (yes or no) if there is a part change.

Part Change Comment: If there is a part change, is it compatible with current parts in current toolsets.

How to Fill Out Form

Old Vendor Part #:	New Vendor Part #:
<input type="text"/>	<input type="text"/>
Interchangeable?	Machines Affected:
<input type="text" value="No"/>	<input type="text"/>
Effective Change Date: *	Delivery Date Affected?
<input type="text"/> <input type="button" value="Date"/>	<input type="text" value="No"/>

Old Part Number: If Part Change is indicated in the Category field above, then this is a **REQUIRED** field.

New Part Number: If Part Change is indicated in the Category field above, then this is a **REQUIRED** field.

Effective Change Date*: The date that the proposed change is actually made in the submitting Vendor's manufacturing process.

Delivery Date Affected: In the event of a delay of an expected shipment to Micron/IMFX/TECH, that delay needs to be communicated by the Vendor.

How to Fill out Form

Cost Impact?	Cost Impact Comments:(Max Length 256)
<input type="text" value="No"/>	<input type="text"/>
Safety Issue?	Safety issue Comments:(Max Length 256)
<input type="text" value="No"/>	<input type="text"/>

Cost Impact?: Will the proposed change have a cost impact?

Cost Impact Comments: If the proposed change does have a cost impact, please describe that impact.

Safety Issue?: Could the proposed change be a potential safety issue?

Safety Issue Comments: If the proposed change could be a safety issue, please describe that issue.

How to Fill out Form

Need Additional Training?

No

Additional Training Comments:(Max Length 256)

Require Facilitation Changes?

No

Facilitation Changes Comments:(Max Length 256)

Comments:(Max Length 256)

Need Additional Training?: If the proposed change affects safety, this needs to be documented in detail. If the proposed change also affects the safety of current toolsets, this also needs to be described in detail.

Additional Training Comments: If additional training is required, how will the Vendor address that need?

Require Facilitation Change?: Does the proposed change require a change in facility?

Facilitation Change Comments: If the proposed change requires a change in facility, please describe that change.

Attachments: Please send all data that supports the proposed change to the person on the upcoming contact list

Contacts

Contacts

Submission: Once the template is completed, please send questions to the appropriate area contact.

- KEG Manager: Clarence Higdon (chigdon@micron.com)
- KEG Manager: Kurt Bossart (kbossart@micron.com)
- KEG Manager : Randle Burton (rburton@micron.com)
- Corp Procurement SQE: Dale Stump ([sstump@micron.com](mailto:ssump@micron.com))
- Corp Procurement GSAM: Kelly Killpack (ckillpack@micron.com)

Communication Path

Communication Path

Communication path: Once the template is submitted to Micron/IMFX/TECH, Vendors can expect communications in response to the following:

Upon receipt: Vendor will be notified that the template has been received and has entered the review process.

Rejection of proposed change: Explanation of why the proposed change was rejected will be included. If Vendors would like to re-submit, then a new template will need to be created.

More data required: If more data is required, KEG Management will contact the Vendor.

Proposed change needs to be qualified: If the proposed change needs to be qualified internally, an e-mail indicating this will be sent to the submitting Vendor. This process could take anywhere from 3 months to 1 year.

Acceptance of proposed change: Upon acceptance of the proposed change, submitting Vendor will be notified.

Question?

Risk Level Definitions

Risk Level	Examples of Changes	Description and Possible Effect	Routing
Risk Level 1	Process module changes; materials within the PM; operating software; RF delivery; power delivery to PM; facilities hook-up/layout; dose controller (Implant)	Anything that the wafer is exposed to, including touching the wafer, which may have the potential to change the electrical results (yield/parametrics)	Internal Review board
Risk Level 2	Other software; liquid or gas delivery components; process module pumps; changes to support equipment; wafer handling systems and components; safety and environmental issues; insitu monitoring; electrical grounding/shielding; computer, communications, firmware; material cleaning; loadlocks and staging modules; changes in manufacturing process (main tool build or subassembly components)	Possible effects on productivity (throughput, uptime, etc.) or any ongoing cost. Also any external environmental/abatement changes.	Internal Review board
Risk Level 3	Nuts/bolts/brackets; aesthetics and system finish; subassembly layout changes that do not cause facility changes; material changes outside the process module; rigging and tooling requirements (for installation)	Changes that have no electrical or cost effects.	Notification

