|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 1 | Mfg. Formula / Components and composition | * Batch mfg. Record
* Training
* Stability Studies/Shelf life
* Label claim of printed PM
* Regulatory approval
* Product permission
* Process validation
* Partial analytical method validation (e.g. In case of change in colour of tab, placebo interference should be checked)
* FP specification & ATP.
* In process specification & ATP
* Stability protocol
* Bill of Raw Material
* Revision of FO/MI
* Cleaning validation
* Customer approval
* Change of MBR,PBR,PI,MI
 | * In process & FP analytical trend
* Supportive data received from SPARC / FDD
* Scientific rationale
 |
| 2 | Manufacturing Site | * Batch mfg. record
* Analytical documents
* Training
* Process validation
 | * Same working principle of machines/equipment
* Equipment Qualification
* Scientific rational.
* Equipment equivalence
 |
| 3 | Batch size | * Batch mfg. record
* Training
* Process validation
* Bill of Raw Material
* Regulatory approval
* Revision of MF and MI or PI or MPR
* Equipment design and qualification status
 | * In process & FP analytical trend.
 |
| 4 | Critical manufacturing equipment/ | * Batch mfg. Record
* Training
* Equipment equivalence (operating principle, design, operating parameters, mfg. capacity), impact on product
 | * Calibration of the equipment.
* Equipment Qualification
* Equipment equivalence
 |
| 5 | Cleaning Procedure | * Cleaning validation
 | * Cleaning validation/

Verification protocol |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 6 | Mfg. procedure | * Batch mfg. record.
* Training
* Stability Studies/Shelf life.
 | * In process & FP analytical Trend
* Supportive data received

from SPARC/FDD |
| 7 | Instrument / machine | * Standard Operating Procedure (SOP).
* Training to the chemist/analyst.

Master BMR/ Analytical documents | * Supportive data to prove no impact on core quality.
 |
| 8 | FP Specification | * FP STP
* Stability protocol
* Training to the analyst
* Method validation
* FP Template/ LIMS
* Batch mfg. record
 | * Any supportive document received from FDD
* FP analytical trend / historical data
* Change in pharmacopoeial limit / method.
* Comparative data study
 |
| 9 | Test method | * ATP (Analytical test procedure)
* Training to Analyst
* Impact on available lots/batches
* Analytical method validation
* Analytical Tech Transfer
 | * Supportive data from FDD
* Any pharmacopoeial

reference* Comparative study data
 |
| 10 | Stability protocol | * Stability specification
* Stability analytical test procedure
* Training to analyst
 | * Any supportive document received from FDD.
* Change in Pharmacopoeial

limit / method. |
| 11 | RM specification. | * RM standard test procedure.
* Raw material inventory system.
* RM directory/sample justification sheet.
* BMR and BOM
* Label claim of printed packing material, if applicable.
* Training to the analyst.
* Method validation
* RM Template/ PLIMS
 | * RM analytical trend.
* Any supportive document received from FDD
* Change in pharmacopoeial

limit* Comparative data study
* RM analytical trend/

historical data. |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 12 | In the process specification/ control specification | * In process analytical test procedure.
* Batch mfg. record.
* Training to the analyst.
* Process Validation
* Cleaning Validation
* Stability studies
* Regulatory approval
* Revision of specification
* Customer approval
* Impact on controlling/monitoring instrument
 | * In process analytical trend
* Any supportive document received from FDD
* Comparative study data
 |
| 13 | Secondary(printed/ un-printed) packaging material. | * Batch packing record.
* Packing material specification and ATP
* Pack profile
* Training to the analyst
* Packaging material inventory system.
 | * Copy of revised artwork of printed pkg. material.
* Justification for the change.
 |
| 14 | Shelf Life | * Master BMR
* Stability study/ Stability protocol
* Change in specification
* Customer Approval
* Regulatory approval or effect Specification (material sampling & handling sheet)
 | * Supportive data from FDD
* Supportive stability study
 |
| 15 | RM Source / Supplier | * Stability Study ( if active )
* Stability protocol Vendor approval Regulatory effect
* API Specification and ATPs
* Inclusion of vendor in approved vendor list
* Process Validation
* Vendor Qualification
* Method Transfer , if required
 | * Comparative study between different RM lot Comparative study of finished product manufactured from these RM
 |
| 16 | Any standard formats / System. | * Standard Operating Procedure

(SOP). Training to the analyst. | * Any audit comment.
* Reference of any incidence report Supportive trend / literature.
 |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 17 | Change in item code of API/ Excipient /Intermediate/Raw material | * All products BMR/BOM in which material is used.
* ERP
* Spec/ATP/Stability protocol
* Package insert/label/foil
* Process validation protocol
* Vendor Qualification
* Identification of affected stock for HOLD
* Identification of affected stock for Rejection
* Regulatory approval
* Revision of finished product specification
* Revision of raw material specification
* Revision of FO/MI packing material
 | * Supportive data to prove no impact on FP quality.
 |
| 18 | Inclusion ofnew pack size | * Revision of stability protocol.
* Stability study.
* Process validation.
* NDC code inclusion in PI or

revision of PI.* Packing order.
* Revision or of pack style.
* Processing of Artwork
* PO/PI Preparation
 | * Marketing requirement
 |
| 19 | Change in Tablet Description:Addition /deletion of break line / quarter line Change in embossing / debossingChange in shape of break line (fish shape /straight line) | * Trail to break the tablets.

One batch Dissolution /CU of half tablet – One time study, Friability, Package insert, Stability protocol.BMR, Process validation protocol. (exhibit/stability)Reporting category as per SUPAC and MAPP.Information to FDA. | * FDD recommendation
 |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 20 | Inclusion ordeletion ofpack size orcount per bottle. | * Package insert (NDC code).
* Packing order.
* Pack style.
 | * Marketing requirement.
 |
| 21 | Existing Product/Equipment/Discontinuation | * Cleaning validation for worst case identification/MACO calculations
* Rejection of raw material/packing material stock or transfer to other location
* Decision for continuation of

stability study* Updation of Product planning
* To cancel the order of raw

materials/packing materials* Update of cleaning validation matrix
* Retrieval of Operational copies of FO/MI, PO/PI
* Retrieval of Operational copies of SOP
* Update calibration calendar, PM calendar, RQ Calendar, Inventory List
 | * Product discontinuation instruction details
 |
| 22 | Site Transfer | * Availability of identical equipment
* VMP/Facility Qualification/Equipment/Critical Utility Qualification
* Whether batch size has been changed
* Process validation
* Cleaning Validation
* Analytical method transfer/Mfg. Tech Transfer
* Stability Study
* MF/MBR revision
* Availability of manufacturing license
* Approval by regulatory
* Resource adequacy in terms of manpower and infrastructure
 | * Product information
 |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
| 23 | New Product | * Vendor Qualification
* Availability of regulatory approval
* Stability study
* Inclusion of vendor in approved vendor list
* Approval of MF and MI (Manufacturing Instructions)
* Approval PO (Packaging Order) and ( PI (Packaging Instruction)
* Process validation
* Availability of scale-up report
* Availability of test batch/exhibit batch monitoring report
* Cleaning Validation
* Resource adequacy in terns of human resources and infrastructure requirements
* Impact on contamination/containment issues
* Analytical test method development verification/validation
 | * Product details
 |
| 24 | New equipment | * Identical equipment
* Design qualification
* Installation qualification
* Utilities requirements
* Operational qualification
* Performance qualification
* Operation and cleaning SOP
* Cleaning validation
* Process validation
* Revision of MI/PI
* Preventive Maintenance SOP
* Calibration of SOP
* Stability Studies
* Equipment equivalence
* Regulatory approval
* Update in equipment inventory /RQ (Re-qualification) Calendar
* Update in calibration calendar
* Update in preventive maintenance calendar
 | * Equipment qualification
 |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
|  |  | * Equipment Log
* Sterilization SOP
* Update Equipment Layout
* Update Validation matrix (VMP)
* Microbiology (E. g. Media fill, EM)
* Special Training
* Specialized resources
* Revision to as built engineering diagrams
 |  |
| 25 | Change in Equipment | * Utilities requirements
* Cleaning validation
* Process validation
* Revision of MI/PI
* Stability Studies
* Equipment equivalence
* Regulatory approval
* Update in equipment inventory /RQ (Re-qualification) Calendar
* Update in calibration calendar
* Update in preventive maintenance calendar
* Equipment Log/ History record
* Supplementary qualification or IQ/OQ/PQ
 | * Change in facility.
 |
| 26 | Change in Layout/Facility | * Is there a change in layout
* Environment control as per specialization (HVAC)
* Area qualification/ Re-qualification
* Contamination/cross contamination
* Special training
* Impact on available resources
* Approval of regulatory agency
* Revision to as built engineering diagrams
 | * Changes in Site master file
 |
| 27 | Change in utility equipment | * Supplementary qualification or IQ/OQ /PQ
* Revision of SOP
* Revision of MI/PI
* Revision of PM SOP
* Update in equipment inventory/RQ calendar
 | * Change in utility equipment
 |
| **Sr. No.** | **Change in****(Item)** | **Impact On****(Due to change in item)** | **Supportive Data / Justification Required** |
|  |  | * Update in calibration calendar
* Update in preventive maintenance calendar
* Revision to as-built engineering diagrams
 |  |
| 28 | Change in art work/Packaging material/Labelling change | * Revision of PO/PI
* Revision of art work
* Revision of packaging specification
* Regulatory approval
* Identification of affected stock for HOLD and Blocking of existing code for further ordering
* Destruction of negative/plates at vendor end
* Marketing approval
* Identification of affected stocks for Rejection
 | * Art work
 |
| 29 | Change in Vendor | * API specs and STPs
* Method transfer, if required
* Vendor Qualification
* Inclusion of vendor in approved vendor list
* Stability study
* Regulatory approval available
* Process validation
* Revision of FO/MI, or PO/PI
 | * Vendor qualification
 |
| 30 | Change in Document (Specification/STP/ SOP/Protocol | * Document revision
* Regulatory approval
* Training
 | * System implementation
 |
| 31 | Regulatory agency | * Any requirement of regulatory agency
 | * Regulatory requirement
 |
| 32 | Personal and General Issues | * Customer requirement
* Marketing requirement
 | * Requirement
 |
| 33 | GxP Computer system | * Change in GxP category 3, 4, 5 computer systems, Revision of SOP
* Change in infrastructure components
* Supplementary qualification or IQ/OQ/PQ
 | * Computer system qualification
 |