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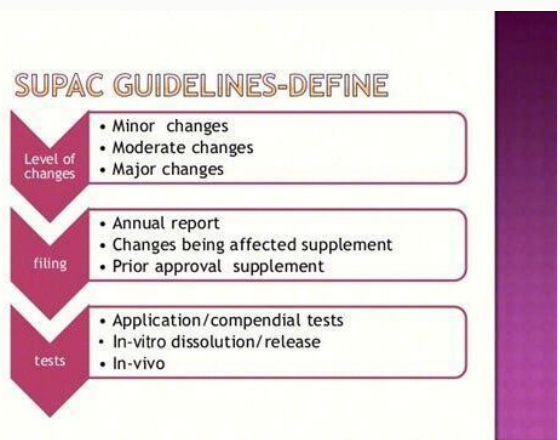
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## Supac guidelines fda ppt

SUPAC is scale-up and the post-approval changes like in the formulation of the drug, batch size, process, equipment, site of manufacturing. Scale-up is an integral part of any life cycle of a product and in the process, it required a "detail-oriented" and "perfectionistic" approach to be followed to ensure that the end outcome is identical to the original product formulation. Scale-up can be understood as the increase in production output as technology transfer takes place from lab-scale research to the giant production output. The initiation of approval of any generic drug begins with the application filing of ANDA (Abbreviated New Drug Application). But there is a twist as the manufacturer may change the formulation of the drug, batch size, process, equipment, site of manufacturing which directs to change in identity, strength, quality and potency of the product. What is SUPAC?SUPAC is scale-up and the post-approval changes (changes that are made after approval) like in the formulation of the drug, batch size, process, equipment, site of manufacturing. SUPAC documents or guidance are as below: FDA issues list of documents to help applicants with post-approval changes: Documents are divided into IR (immediate-release), MR (modified release), SS (non-sterile semisolid dosage form). In the following areas, changes are likely to take place: Components and composition of the drug product/Manufacturing site change/Scale-up of the drug product/Manufacturing equipment/Packaging/Mainly describes 3 levels of changes which include chemistry, manufacturing and controls tests, in vitro dissolution tests, and bioequivalence tests for each level. Level Definition: 1- Changes that are unlikely to have any detectable impact on formulation quality and performance 2- Changes that could have a significant impact on formulation quality and performance 3- Changes that are likely to have a significant impact on formulation quality and performance Current requirements for post-approval changes: Components/ Composition/ Site changes/ Change in batch size/ Manufacturing Specifications/ Packaging 1. Components/Composition: As the heading suggests any changes in components or composition of the formulation can be considered as major changes. Such significant changes must be inspected carefully before execution as it can affect the dissolution profile of the product.



There is a twist as the manufacturer may change the formulation of the drug, batch size, process, equipment, site of manufacturing which directly to change in identity, strength, quality and potency of the product. What is SUPAC? SUPAC is scale-up and the post-approval changes (changes that are made after approval) like in the formulation of the drug, batch size, process, equipment, site of manufacturing, SUPAC documents or guidance are as below: FDA issues list of documents to help applicants with post-approval changes: Documents are divided into IR (immediate-release), MR (modified release), SS (non-sterile semisolid dosage form). In the following areas, changes are likely to take place: Components and composition of the drug product, Manufacturing site, change, Scale-up of the drug product, Manufacturing equipment, Packaging. Mainly describes 3 levels of changes which include chemistry, manufacturing and controls tests, in vitro dissolution tests, and bioequivalence tests for each level. Level Definition: 1- Changes that are unlikely to have any detectable impact on formulation quality and performance; 2- Changes that could have a significant impact on formulation quality and performance; 3- Changes that are likely to have a significant impact on formulation quality and performance. Current requirements for post-approval changes: Components/ Composition/ Site changes: Change in batch size, Manufacturing Specifications, Packaging. 1. Components/ Composition: As the heading suggests any changes in components or composition of the formulation can be considered as major changes. Such significant changes must be inspected carefully before execution as it can affect the dissolution profile of the product. Such changes require a "Prior Approval Supplement". Any change in components or its composition changes comes under SUPAC guidance. The addition or deletion of an ingredient to be considered carefully can adversely affect the dissolution profile of the finished product and must be filed as a Prior Approval Supplement. Few exceptions include addition or reduction in excipient - colors (removed/ reduced). 2.

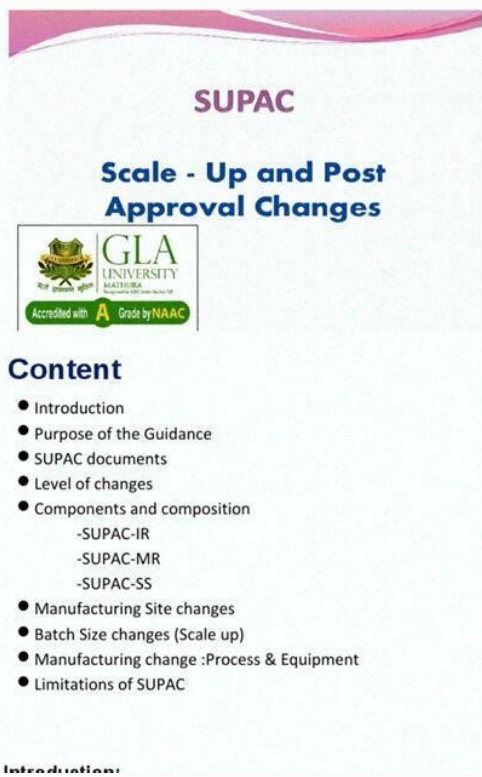
LEVEL	CLASSIFICATION	TEST DOCUMENTATION	FILED DOCUMENTATION
	Higher than SUPAC-IR Level 1 and Level 2 excipient ranges.	-stability application/compendial requirements  -Case B dissolution profile (three-point dissolution profile in the application)  -compendial medium at 15, 30, 45, 60, and 120 minutes or until an asymptote is reached for the proposed and currently accepted formulation 1  -Biostudy or IVIVC	-Prior approval supplement  -Annual report

components/CompositionAs the heading suggests any changes in components or composition of the formulation can be considered as major changes. Such significant changes must be inspected carefully before execution as it can affect the dissolution profile of the product. Such changes require a "Prior Approval Supplement". Any change in components or its composition changes comes under SUPAC guidance. The addition or deletion of an ingredient to be considered carefully can adversely affect the dissolution profile of the finished product and must be filed as a Prior Approval Supplement. Few exceptions include addition or reduction in excipient - colors (removed/ reduced). 2. Site ChangeAs the heading suggests any changes in the site of manufacture can be considered as major changes. The sponsor who is responsible for ANDA filing - includes in its application the site of manufacture, where the drug product will be manufactured, tested, packaged, and/or labeled. pojacisku Any change in any of these sites can adversely affect the formulation's identity, strength, quality, purity, or potency of the finished product. Such significant changes must be inspected carefully before execution and also should be in compliance with cGMP guidelines as any site change comes under SUPAC-IR. An individual change which includes packaging operation site change, utilizing container (s)/ closure (s) in the approved application, such changes to be addressed as "Change Being Effectuated Supplement". 3.

## What are SUPAC documents

A series of documents issued by US FDA (CDER) to help applicants with post-approval changes

- Documents are categorized into IR, MR and SS (FPPs)
- Various types of changes are described:
  - ▶ Components and composition
  - ▶ Manufacturing (equipment, process)
  - ▶ Batch size
  - ▶ Manufacturing site changes



that is SUPAC/7SUPAC is scale-up and the post approval changes (changes that are made after approval) like in the formulation of the drug, batch size, process, equipment, site of manufacturing. SUPAC documents or guidance are as below: FDA issues list of documents to help applicants with post-approved changes. Documents are divided into IR (Immediate Release), MR (modified release), SS (non-sterile semisolid dosage form). In the following areas, changes are likely to take place: Components and composition of the drug product/Manufacturing site changes/Scale-up of the drug product/Manufacturing equipment/Packaging/Manufacturing process. Changes include chemistry, manufacturing and controls tests, in vitro dissolution tests, and bioequivalence tests for each level. Definition 1- Changes that are unlikely to have any detectable impact on formulation quality and performance. 2- Changes that could have a significant impact on formulation quality and performance. 3- Changes that are likely to have a significant impact on formulation quality and performance. Current requirements for post-approved changes: Components/ Composition/ Site changes/ Change in batch size/ Manufacturing Specifications/ Packaging/ 1. Components/ Composition/ As the heading suggests any change in components or composition of the formulation can be considered as major changes. Such significant changes must be inspected carefully before execution as it can affect the dissolution profile of the product. Such changes require a "Prior Approval Supplement". Any change in components or its composition changes comes under SUPAC guidance. The addition or deletion of an ingredient to be considered carefully can adversely affect the dissolution profile of the finished product and must be filed as a Prior Approval Supplement. Few exceptions include addition or reduction in excipient - colors (removed/ reduced). 2. Site of manufacture/ Any change in the site of manufacture can be considered as a significant change. The site of manufacture where the drug product is manufactured, tested, packaged, and labeled, komadugga. Any change in any of these sites can adversely affect the formulation. Identity, strength, quality, purity, or potency of the finished product. Such significant changes must be inspected carefully before execution and also should be in compliance with GMP guidelines. A change comes under SUPAC-IR, including a change which includes packaging, operating site change, utilizing container (s) closure (s) in the approved application, such changes to be addressed as "Change Being Effected Supplement". 3. Change in Batch Size/ As the heading suggests change in batch size from lab-scale formula to giant-scale production batches tends to change the operating parameters which include such as mixing time and its speed etc., needs to be adjusted as per the size of the equipment. Proper inspection and validation are required of the batches before the submission of the application. Level 1 change can be defined as any change in the production batch. Any change which falls outside the validation ranges, the change can be considered under SUPAC-IR and as a level 2 change. 4. Manufacturing/ This includes any change made in equipment and the process used in manufacturing a drug product. a) Equipment Change/ As the heading suggests any change in manufacturing equipment other than that used in the approved application requires appropriate validation and proper inspection before implementation so that the new equipment is similar to the original equipment. Equipment within the same class and subclass like change in the manufacturer of equipment are acceptable under the condition to have the same design and operating principle under SUPAC-IR. Example: V-cone blender manufactured by different manufacturers can be responsible for any changes are acceptable. Any sort of change from one class of equipment to another would be considered a change in design and operating principle and would be considered different under SUPAC-IR. Eg: V-cone blender to ribbon blender. Any significant change in manufacturing equipment than that used in the initial approved application needs proper inspection and appropriate validation studies to demonstrate that the new equipment is similar to the original equipment. Equipment that falls under the same class and subclass would be considered to have the same design and operating principle under SUPAC-IR. Example: Change in diff mfr of V-cone blender-acceptable. Change from one class of equipment to another could bring up a change in design and operating principle and would be considered different under SUPAC-IR. b) Process Change/ As the heading suggests change in the manufacturing process or technology can have adverse effects on the identity, strength, quality, purity, or potency of a drug product. The safety and effectiveness of the drug product must be maintained. The process of manufacturing, testing, packaging, and labeling, komadugga. Any change in any of these sites can adversely affect the formulation. Identity, strength, quality, purity, or potency of the finished product. Such significant changes must be inspected carefully before execution and also should be in compliance with GMP guidelines. A change comes under SUPAC-IR, including a change which includes packaging, operating site change, utilizing container (s) closure (s) in the approved application, such changes to be addressed as "Change Being Effected Supplement". 5. Change in Batch Size/ As the heading suggests change in batch size from lab-scale formula to giant-scale production batches tends to change the operating parameters which include such as mixing time and its speed etc., needs to be adjusted as per the size of the equipment. Proper inspection and validation are required of the batches before the submission of the application. Level 1 change can be defined as any change in the production batch. Any change which falls outside the validation ranges, the change can be considered under SUPAC-IR and as a level 2 change. 6. Packaging/ Packaging plays an important role as it can affect the shelf life of the finished product. Therefore, under the new guidance for industry, and the stability guidance, the requirements for packaging changes have been relaxed significantly. Get subject wise printable pdf documents. View Here. Visitors are also reading: