**St Peter’s Institute of Pharmaceutical Sciences**

**Course : Bachelor of Pharmacy**

**Subject : Pharmaceutical Regulatory Science**

**Subject Code:** **BP804ET**

 **DRUG MASTER FILE**

Drug Master File (DMF) is submitted to the Food and Drug Administration (FDA) which can be used to provide confidential information about the resources, processes, or articles used in the manufacture, packaging, and storage of one or more human drugs. DMF submission does not require FDA law or regulation. DMF is submitted only at the discretion of the manager. The information contained in the DMF may be used to support the Investigational New Drug Application (IND), New Drug Application (NDA), Abbreviated New Drug Application (ANDA), other DMF, Export Application, or amendments and additions to any which of these.

DMF is not an IND, NDA, ANDA, or Export Application. DMF technical content is updated only in connection with reviews of IND, NDA, ANDA, or export request.

This guideline does not set out the requirements (21 CFR 10.90 (b)). However, it does provide guidance on acceptable ways to meet regulatory requirements. Various methods can be followed, but the applicant is encouraged to discuss major variances in advance with FDA reviewers to avoid wasting time and effort in preparing for future submissions by the FDA that would not be acceptable.

Drug Sector Files are provided for 21 CFR 314.420. This guideline is intended to provide DMF management with acceptable procedures by the agency for the DMF preparation. The guideline discusses the types of DMFs, the information required for each type, the DMF referral format, the administrative procedures governing DMF reviews, and the responsibilities of the DMF holder.

DMFs are usually designed to allow a third party other than the DMF holder as reference material without exposing the contents of the file. When the applicant refers to his / her own material, the applicant should refer to the information contained in his / her IND, NDA, or ANDA directly rather than establishing a new DMF.

**1. Types of Drug Master Files**

a. Type I: Manufacturing Site, Facilities, Operating Procedures, and Personnel
b. Type II: Drug Substance, Drug Substance Intermediate, and Material Used in their preparation, or Drug Product
c. Type III: Packaging Material
d. Type IV: Excipient, Colorant, Flavor, Essence, or Material Used in Their Preparation
e. Type V: FDA Accepted Reference Information

**Type I: Manufacturing Site, Facilities, Operating Procedures, and Personnel**

It is recommended for a person outside the United States to assist the FDA in conducting a site inspection of their production facilities. The DMF must define the production site, equipment capacity, and operational capacity. Type DMF is generally not required to define domestic facilities, except in special circumstances, such as when a person is unregistered and not regularly inspected.

The site description should include the acreage, the actual site address, and a map showing its location in relation to the nearest city. Aerial imagery and site drawing can help. The drawing of main production and processing facilities helps to understand the structure of the operation. Larger equipment should be defined in terms of capacity, application and location. Performance with the model would not be required unless the equipment is new or different.

The drawing of the organisation's major assets, with production, quality control, and quality assurance positions, in both production facilities and at corporate headquarters, is also helpful.

**Type II*:* Drug Substance, Drug Substance Intermediate, and Material Used in Their Preparation, or Drug Product**

Type II DMF should, in general, be limited to a single intermediate drug, drug, drug product, or type of substance used in their preparation. Summarize all the important steps in manufacturing process and controls of the intermediate drug or substance.

Production procedures and controls for completed draft forms should be submitted to IND, NDA, ANDA, or Export Application. If this information cannot be submitted to IND, NDA, ANDA, or Export Application, it must be submitted to DMF.

**Type III: Packaging Material**

Each packaging material must be identified by its intended use, components, composition, and controls. Names of suppliers or manufacturers of packaging materials and acceptance details must also be provided. Information supporting the approval of the packaging material for its intended use should also be provided as set out in the "Guidelines for Submitting Documentation of Packaging for Human Drugs and Biologics." Toxic information on these items will be included under this type of DMF, otherwise available by reference to another document.

**Type IV Excipient, Colorant, Flavor, Essence, or Material Used in Their Preparation**

Each excipient should be identified and evaluated by its process of manufacture, specifications and test methods. Toxic information on these items will be included under this type of DMF, otherwise available by reference to another document.

Common, legal compendia rules and FDA for color supplements (21 CFR Sections 70 to 82), direct dietary supplements (21 CFR Sections 170 to 173), indirect dietary supplements (21 CFR Sections 174 to 178 ), and food items (21 CFR Sections 181 to 186) can be used as sources of testing, specification and safety. Suggested guidelines for Type II DMF can help in preparing for Type IV DMF. DMF should include any other supporting information and data not available by reference to another text.

**Type V: FDA Accepted Reference Information**

The FDA does not endorse the use of Type V DMF's for miscellaneous information, duplicate information, or data to be included in any of DMF's types. If any owner wishes to submit data and supporting data to DMF uncovered by types I to IV, the owner must first submit a letter of intent to the Drug Master File Staff. The FDA will then contact the owner to discuss the proposed submission.

**References**

1. ["Guideline for Drug Master Files"](https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm122886.htm). US Food and Drug Administration. 2009-09-19.
2. <https://www.fda.gov/drugs/guidances-drugs/drug-master-files-guidelines>