

### **APPENDIX 33**

**(Please refer to ANF 4A (Guidelines to applicants & Appendix 11A)**

#### **INFORMATION TO BE SUBMITTED FOR FIXATION OF STANDARD INPUT OUTPUT NORMS**

##### **(I) CHEMICALS PRODUCTS, DRUGS AND PHARMACEUTICALS**

- a) Step-wise Manufacturing Process.
- b) Complete Chemical reactions with molecular and structural formula and molecular weights along with stage-wise % yields on molar basis.
- c) Material balance (Stoichiometric Balance Details) for the entire manufacturing process.
- d) Requirement and recovery of solvents used in the entire manufacturing process at each step.
- e) Authentic technical literature/catalogue in support of percentage yield claimed in the entire manufacturing process.
- f) Details of by-product/co-products formed in the above process with their quantities and values
- g) Details of solvents charged, recovered and consumed in each step of the manufacturing process in terms of quantity.
- h) Collaborator's guaranteed norms, if any.
- i) Percentage purity of finished product and raw materials and percentage of any diluent/moisture etc. in the export product.
- j) End use of the chemical intermediates being exported. In case of the drug intermediate, the name of the bulk drug where the same is to be used should be indicated.
- k) Copy of the valid drug manufacturing licence, wherever applicable.
- l) Standard technical literature pertaining to the process as well as yields in case of new drug molecules being exported. This technical material can be by way of standard references – Chemical Abstracts, Journal of Organic Chemistry and the like or copy of the relevant patent.
- m) Pharmaceutical references whether the export product is of USP, BP etc.

##### **(II) ENGINEERING PRODUCTS**

- a) Model number, technical specification and specific quantity-both in terms of number (if any) and/or weight, of each export product
- b) Details technical Note on manufacturing process. c) Drawings/catalogues of each export product.
- d) Weight of each product (if the inputs include raw material).

## **IMPORT ITEMS**

### **A. COMPONENTS**

- i) Technical characteristics/part numbers, if any.
- ii) Assembly drawings/diagrams of the resultant product showing placement of components.
- iii) Usage of the components.
- iv) Weight of the components
- v) Bifurcated quantities of components to be accounted for in the resultant product and the requirement of components as spares.

### **B. RAW MATERIALS/ CONSUMABLES**

- i) Grade /composition/ range/ thickness etc.
- ii) Detailed calculation for the quantity of each raw material, supporting drawings and net weight of each item to be fabricated/manufactured from the said raw material.
- iii) Stage wise details on the net content in the resultant product with complete justification thereof.

## **(III) TEXTILE PRODUCTS**

- a) Detailed drawings of the Items of manufacture i.e. export product;
- b) Justification for wastages claimed in regard to the items to be imported:
- c) Justification for import of particular grade/specification/ dimension etc., of the raw material applied

## **(IV) PLASTIC/ RUBBER PRODUCTS**

- a) Detailed manufacturing process alongwith technical justification for wastages claimed at each stage of manufacturing process.
- b) Technical descriptions/specifications including size, thickness and weight range of plastic/rubber etc. of the products to be exported along with small samples of export product.
- c) Chemical name of Processing Aid, Blowing Agent & pigment proposed to be imported.
- d) Whether the scrap generated in the process is being reused or not. If not the technical justification for its non-use may be furnished. If the scrap is being sold, the sale value/commercial value may be indicated.
- e) Percentage of rubber compound in the export product.
- f) Percentage composition of rubber compound in terms of different constituents.
- g) Percentage composition by weight of constituents in formulated/ blended products.

**(V) PESTICIDES**

- a) Manufacturing process for pesticides for both technical grade as well as formulation, as the case may be.
- b) Detailed chemical reactions and material balance along with molecular weight of the reactants, % yield and wastages at different stages of manufacturing process supported by authentic/printed technical literature.
- c) Details of by-products, if any, formed during the reaction alongwith its recovery in terms of quantity and value.
- d) Percentage purity of finished product and raw materials and percentage of any diluent/moisture etc. in the export product.
- e) Registration Certificate issued from Central Insecticides Board for the manufacture of pesticides (technical grade) and also pesticides formulations.

**(VI) PAINTS/ SURFACE COATINGS/ PRINTING INKS**

- a) Percentage solid resin content in the export product.
- b) Percentage pigment content in the export product.
- c) Percentage volatile content in the export product.

**(VII) DYES & DYE INTERMEDIATES**

- a) Manufacturing process, material balance and flow chart.
- b) Balanced chemical reaction showing all the reactants, product and by-products(s) with their molecular formulas and molecular weights.
- c) Stage-wise % yield in respect of each reactant along with justification.
- d) Authentic/ printed technical literature in support of yield or quantity of items applied for import.
- e) Details of solvents charged during the process, quantity recovered and loss in process and recovery.
- f) Details of by products formed during the process and their recovery in terms of quantity and value.
- g) Details of standardization and % dye content of export item.
- h) Colour Index No. and Hue No. of Dyes

**(VIII) PAPER AND PAPER PRODUCTS**

- a) GSM of item of export/ import
- b) Coating composition in case of coated paper and percentage coating weight in the export product.