

including how such a requirement would ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. Conversely, if comments assert that written procedures are not necessary, comments should include an explanation of why the requirement is not necessary including how, in the absence of the requirement, one can prevent adulteration and ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. Further, we seek comment on whether any of the proposed requirements in this section are not necessary to prevent adulteration and to ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. If comments assert that certain provisions are not necessary, comments should include an explanation of why the requirement is not necessary including how, in the absence of the requirement, one can prevent adulteration and ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. If comments agree that the proposed requirements are necessary for reasons other than those we have provided, the comments should so state and provide an explanation.

For computerized equipment, you should note that we already have issued guidance documents that may give you some helpful information. The guidance documents are: "FDA Guide to Inspections of Computerized Systems in the Food Processing Industry" (Ref. 59), and a "Guide to Inspections of Computerized Systems in Drug Processing" (Ref. 62). Although we did not draft these guidance documents for dietary ingredient and dietary supplement firms, they still provide important advice on establishing and using computerized systems in dietary supplement manufacturing operations. Given the broad range in sophistication, complexity, and computerization in manufacturing equipment, we invite comments on whether we should regulate computerized systems separately from other automatic equipment.

Although we are not proposing verification requirements in this proposed rule, we are seeking comment on whether such verification should be included in a final rule. Verification would be intended to ensure that the processes using automatic, mechanical, and electronic equipment consistently produce an outcome that meets a predetermined specification and any predetermined quality characteristics. Verification would be intended to show

you whether your automatic, mechanical, or electronic processes will consistently operate as they should.

We believe, in general, that scientific knowledge and industry experience have defined the basic elements of a sound verification system to include; determining whether the capacity of the hardware matches its assigned function; identifying and considering operational limits in establishing production procedures; determining whether the software matches the assigned operational function; testing simulated production conditions including "worst case" conditions; repeating tests enough times to assure a reasonable measure of consistent reproducible results; documenting the verification program; and initiating reverification when significant changes are made to the system or when errors are noted.

Although verification steps would vary according to the nature of the dietary supplement and the complexity of the process, the basic elements of a verification system would be generally applicable to all dietary ingredients and dietary supplements. The primary benefit of a verification system would be to provide a foundation for building a comprehensive approach to ensure that the equipment performs in a predetermined way, but verification could impose additional costs on manufacturers.

We invite comment on whether automatic, mechanical, and electronic equipment verification and reverification elements that we have discussed should be done, should be included in the final rule as requirements, which would include requirements to document the verification steps. We invite comment on whether we should regulate computerized systems separately from other automatic equipment. We seek comment on whether any of the proposed requirements in this section are not necessary to prevent adulteration and to ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. If comments assert that certain provisions are not necessary, comments should include an explanation of why the requirement is not necessary including how, in the absence of the requirement, one can prevent adulteration and ensure the identity, purity, quality, strength, and composition of the dietary ingredient or dietary supplement. If comments agree that the proposed requirements are necessary for reasons other than those we have provided, the comments should so state and provide an explanation.

E. Production and Process Controls (Proposed Subpart E)

Proposed subpart E contains production and process controls to help ensure that you have controls covering all manufacturing, packaging, label, and holding operations, and that those controls will prevent adulteration of your dietary ingredient or dietary supplement. We propose to establish a framework in which decisions about producing a dietary ingredient or dietary supplement are left to you, but that charges you with incorporating into your production process, measures that are designed to ensure that the dietary ingredient or dietary supplement is manufactured in a manner that will prevent adulteration and misbranding.

Dietary ingredient and dietary supplement manufacturing requires technical knowledge and skill (e.g., in research and development, production equipment and procedures, and analytical equipment and methodology) that a vast majority of companies in the food processing industry do not have. A dietary ingredient or dietary supplement manufacturer must maintain constant control because a seemingly innocuous change in the formulation or preparation method or in exposure to an unanticipated environmental condition could create a health hazard. Earlier, in section I.E of this document in our discussion of "FDA's Decision to Propose a Rule," we cite several examples of problems arising from poorly controlled manufacturing practices. For example, we cite problems of dietary ingredient misidentification; super- and subpotent dietary supplements; and contamination including toxic substances, microorganisms of public health significance, and heavy metals. Thus, we believe that using a production and inprocess control system covering all stages of processing is necessary to insure that the dietary ingredient or dietary supplement is manufactured in a manner that will prevent adulteration.

1. What Production and Process Controls Must You Use? (Proposed § 111.35)

Proposed § 111.35(a) would require that you implement a system of production and inprocess controls that covers all stages of manufacturing, packaging, labeling, and holding of the dietary ingredients and dietary supplements.

Proposed § 111.35(b) would require that your production and inprocess control system must be designed to ensure that you manufacture, package, or hold dietary ingredients or dietary