

Regulatory Update

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9th Annual UNPA Member Retreat

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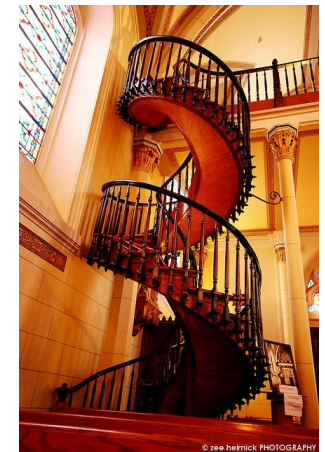
Welcome!

Did you know, at a business presentation

- 91% of listeners admit to day dreaming and
- 39% admit to sleeping?

Forbes 2017

At any one time, there is a chance....no one will be listening.



Loretto Chapel and the “miraculous staircase”

The Loretto Chapel

207 Old Santa Fe Trail



Santa Fe, NM 87501

Who am I?





What am I doing for you at UNPA?

- 
- 
- Member Support
 - FDA Liaison
 - Quality Initiatives
 - Training and Education Program
 - ✓ FSMA, PCQI, FSVP
 - ✓ Dietary Supplement GMP Training

UNPA[™]

**UNITED NATURAL
PRODUCTS ALLIANCE®**

UNPA's 2017 Quality-Initiative Activity



Dietary Supplement Quality
Collaborative

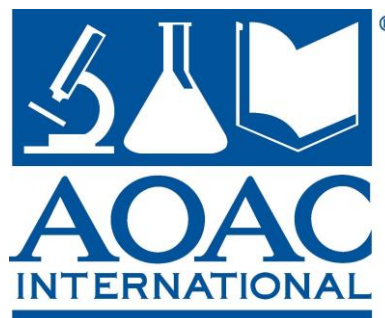


IADSA



Global Retailer and Manufacturer
Alliance

G|R|M|A



Quality Initiatives

Agricultural

- Good Agricultural Practice (GAP)
- National Organic Program (NOP) by USDA

Raw Material

- Herbs of Commerce
- SIDI Protocol (Standardized Information for Dietary Ingredient)
- Identity



Testing and Monitoring

- AOAC: Methods
- USP: Standards for Botanicals
- Dietary Supplement Quality Assurance Program (DSQAP) by NIST/NIH



Quality Initiatives

GMPs and Quality Standards

- FDA 21 CFR Part 111
- DSQC:
 - Quality Matrix,
 - Tainted and Adulterated Products Working Group
 - Outreach
- Global Retailer and Manufacturers Alliance (GRMA)
- International Alliance of Dietary/Food Supplements Associations (IADSA)



IADSA

Quality?

Registrations

- Online Wellness Library (OWL)
- Industry ODI list



What do you think?



Nutrition Facts

Serving Size 125g

Amount Per Serving

Calories 65 Calories from Fat 2

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat

Cholesterol 0mg 0%

Sodium 1mg 0%

Total Carbohydrate 17g 6%

Dietary Fiber 3g 12%

Sugars 13g

Protein 0g

Vitamin A 1% • Vitamin C 10%

Calcium 1% • Iron 1%

*Percent Daily Values are based on a 2,000 calorie diet.
Your daily values may be higher or lower depending on your calorie needs.

NutritionData.com



Evolution of Food Regulations



Centers for Disease
Control and Prevention
National Center for
Health Statistics

2009-2010 Foodborne Disease Outbreaks

- 9.4 million foodborne illnesses annually
- 1,527 outbreaks
 - 2009: 675
 - 2010: 852
- 29,494 illnesses
- 1,184 hospitalizations
- 23 deaths

Melamine

Industrial chemical abused by food producers

What is it

- ▶ An organic chemical
- ▶ Most commonly found as white crystals rich in nitrogen

Main uses

Used in manufacture of:

- ▶ Plastics
- ▶ Adhesives
- ▶ Dishware
- ▶ Fertilisers
- ▶ Whiteboards

How it is abused

- ▶ Its high nitrogen content is used to falsely bolster protein level readings in food products
- ▶ It is believed that melamine has been used to disguise low protein levels in milk diluted to boost profits

Dangers

- ▶ Causes kidney stones, other urinary tract problems in lab animals
- ▶ Can lead to **kidney failure and death**

Symptoms of melamine poisoning

- ▶ Irritability
- ▶ Blood in urine
- ▶ Little or no urine
- ▶ Signs of kidney infection
- ▶ High blood pressure

Sources: FDA/WHO

311208 AFP

Outbreak Score Card



Centers for Disease
Control and Prevention
National Center for
Health Statistics

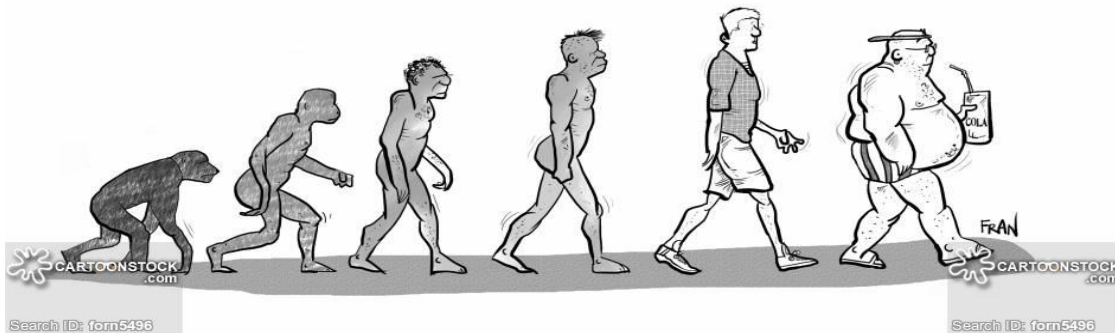
	Outbreaks	Hospitalizations	Deaths
Norovirus	X (42%)	X (9%)	1
<i>Salmonella</i>	X (30%)	X (49%)	
<i>E. Coli/E. Coli 0517</i>	X	X (16%)	0517 = 4
<i>Listeria</i>		x	9
<i>Clostridium botulinum</i>		x	5
<i>Clostridium perfringens</i>			3
<i>Shigella</i>			1

Shown in descending order

Food Safety Modernization Act (FSMA)

Current Good Manufacturing Practice, Hazard Analysis, and Risk-based Preventive Controls for Human Food (21 CFR Part 117)

- Referred to as the Preventive Controls for Human Food regulation



FSMA

...is intended to ensure safe manufacturing/processing, packaging, and holding of food products for human consumption in the US.

Compliance Dates:

- September 2016 with progressive roll out
- Small (AKA medium) September 2017
- Very small in 2018

Survey 43%



cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)

- Includes:
 - Subpart B: GMP
 - Subpart C: Hazard analysis and risk-based Preventive Controls
 - Subpart G: Supply Chain Program
- The regulation requires that certain activities must be completed by a “preventive controls qualified individual (PCQI).”

cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)

Subpart B – Current Good Manufacturing Practice

117.10 Personnel

117.20 Plant and Grounds

117.35 Sanitary Operations

117.37 Sanitary Facilities and Controls

117.40 Equipment and Utensils

117.80 Processes and Controls

117.93 Warehousing and Distribution

117.110 Defect Action Levels

cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)

Some of the changes from 110:

- Training as a requirement
- Cross contact
- Allergens
- Supervision of sanitation by Qualified Individual

cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)

Subpart C--Hazard Analysis and Risk-Based Preventive Controls

§ 117.126 - Food safety plan.

§ 117.130 - Hazard analysis.

§ 117.135 - Preventive controls.

§ 117.136 - Circumstances in which the owner, operator, or agent in charge of a manufacturing/processing facility is not required to implement a preventive control.

§ 117.137 - Provision of assurances required under 117.136(a)(2), (3), and (4).

§ 117.139 - Recall plan.

§ 117.140 - Preventive control management components.

§ 117.145 - Monitoring.

§ 117.150 - Corrective actions and corrections.

§ 117.155 - Verification.

§ 117.160 - Validation.

§ 117.165 - Verification of implementation and effectiveness.

§ 117.170 - Reanalysis.

§ 117.180 - Requirements applicable to a preventive controls qualified individual and a qualified auditor.

§ 117.190 - Implementation records required for this subpart.

<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?CFRPart=117>

1/2 way



Preventive Controls Qualified Individual (PCQI)

“A qualified individual who has successfully completed training in the development and application of risk-based preventive controls at least equivalent to that received under a standardized curriculum recognized as adequate by FDA or is otherwise qualified through job experience to develop and apply a food safety system.”

21 CFR Part 117.3

cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)



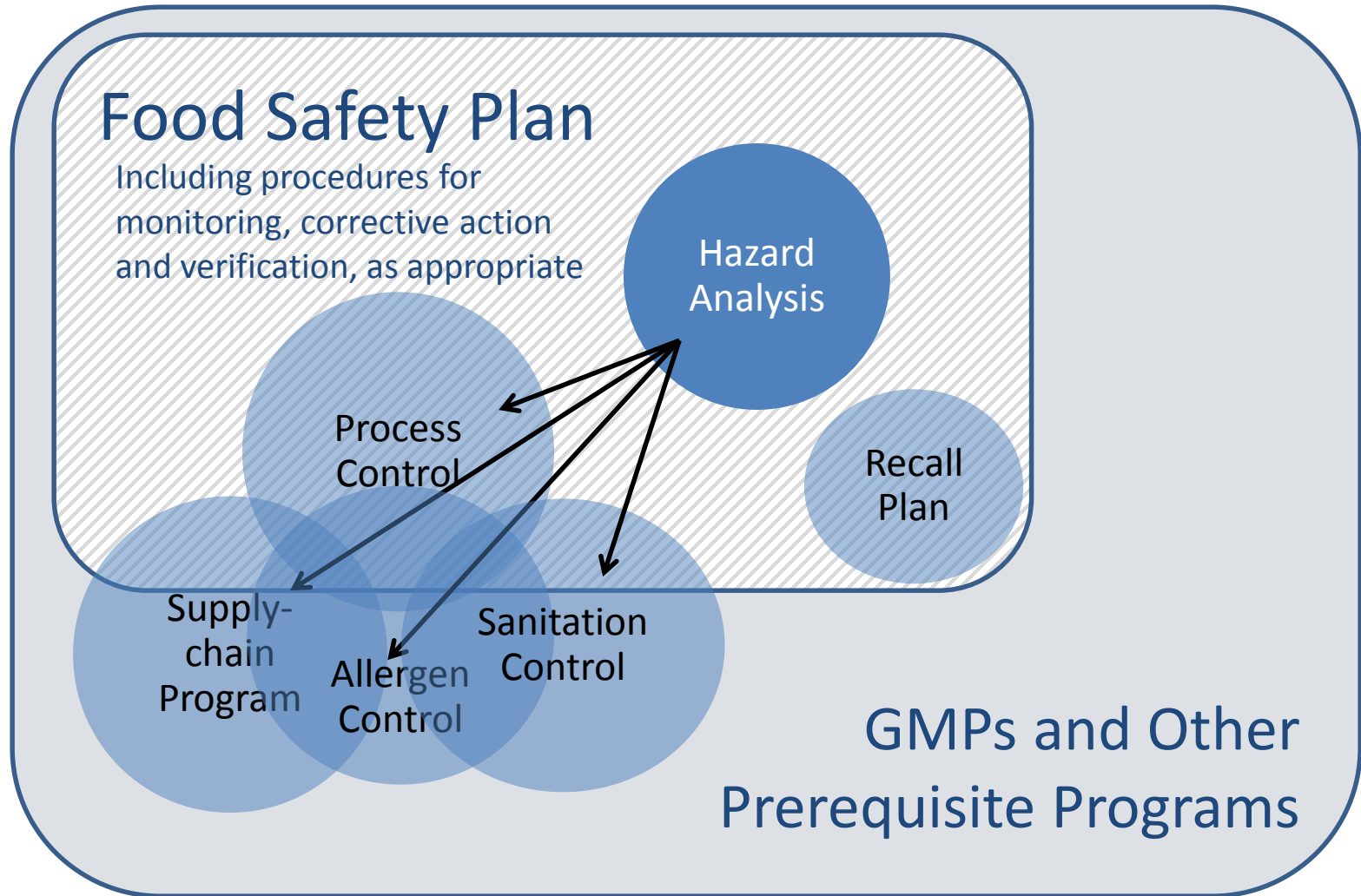
cGMP, Hazard Analysis, and Risk-based Preventive Controls for Human Food (CFR Part 117)

Responsibilities of the PCQI include to oversee or perform:

1. Preparation of the Food Safety Plan
2. Validation of the preventive controls
3. Records review
4. Reanalysis of the Food Safety Plan, and other activities as appropriate for the food

21 CFR Part 117.180

Preventive Food Safety Systems



From PCQI instructor slides

```
graph TD; HA[Hazard Analysis] --> PC["Preventive Controls  
(CCPs, allergen, sanitation, supplier, etc.)"]; PC --> PV[Parameters & Values]; PV --> M[Monitor]; M --> CA[Corrective Action or Corrections]; CA --> V[Verification & Recordkeeping]; V --> HA;
```

The flowchart illustrates the HACCP process. It begins with **Hazard Analysis**, which leads to **Preventive Controls (CCPs, allergen, sanitation, supplier, etc.)**. This step leads to **Parameters & Values**, which then leads to **Monitor**. From **Monitor**, the process moves to **Corrective Action or Corrections**. Finally, **Corrective Action or Corrections** leads to **Verification & Recordkeeping**, which feeds back into **Hazard Analysis**.



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What's New in a Food Safety Plan

Element	HACCP Plan	Added in Food Safety Plan
Hazard analysis	Biological, chemical, physical	Chemical hazards to include radiological; consider economically motivated hazards
Preventive controls	CCPs for processes	Process CCPs + controls at other points that are not CCPs
Parameters and values	Critical limits	Parameters and minimum/maximum values (= critical limits for process controls)
Monitoring	Required for CCPs	Required as appropriate for other preventive controls
Corrective actions or corrections	Corrective actions	Corrective actions or corrections, as appropriate
Verification	For process controls	As appropriate for all preventive controls; supplier verification required when supplier controls a hazard
Records	For process controls	As appropriate for all preventive controls
Recall plan	Not required in the plan	Required when a hazard requiring a preventive control is identified

From PCQI instructor slides



PREVENTIVE CONTROLS WORKSHOP FOR DIETARY SUPPLEMENTS

Preventive Controls Qualified Individual (PCQI) for Dietary Supplements

Preventive Controls (PCQI) for Dietary Supplements

This course meets FDA's PCQI training requirements. Participants will receive official FSPCA Preventive Controls Qualified Individual certificates.

Led by UNPA's Larisa Pavlick • [Register at unpa.com/events](https://unpa.com/events)



July 17-19 | Hilton Salt Lake City Center | Salt Lake City

Inspectional Observations

Form FDA 483

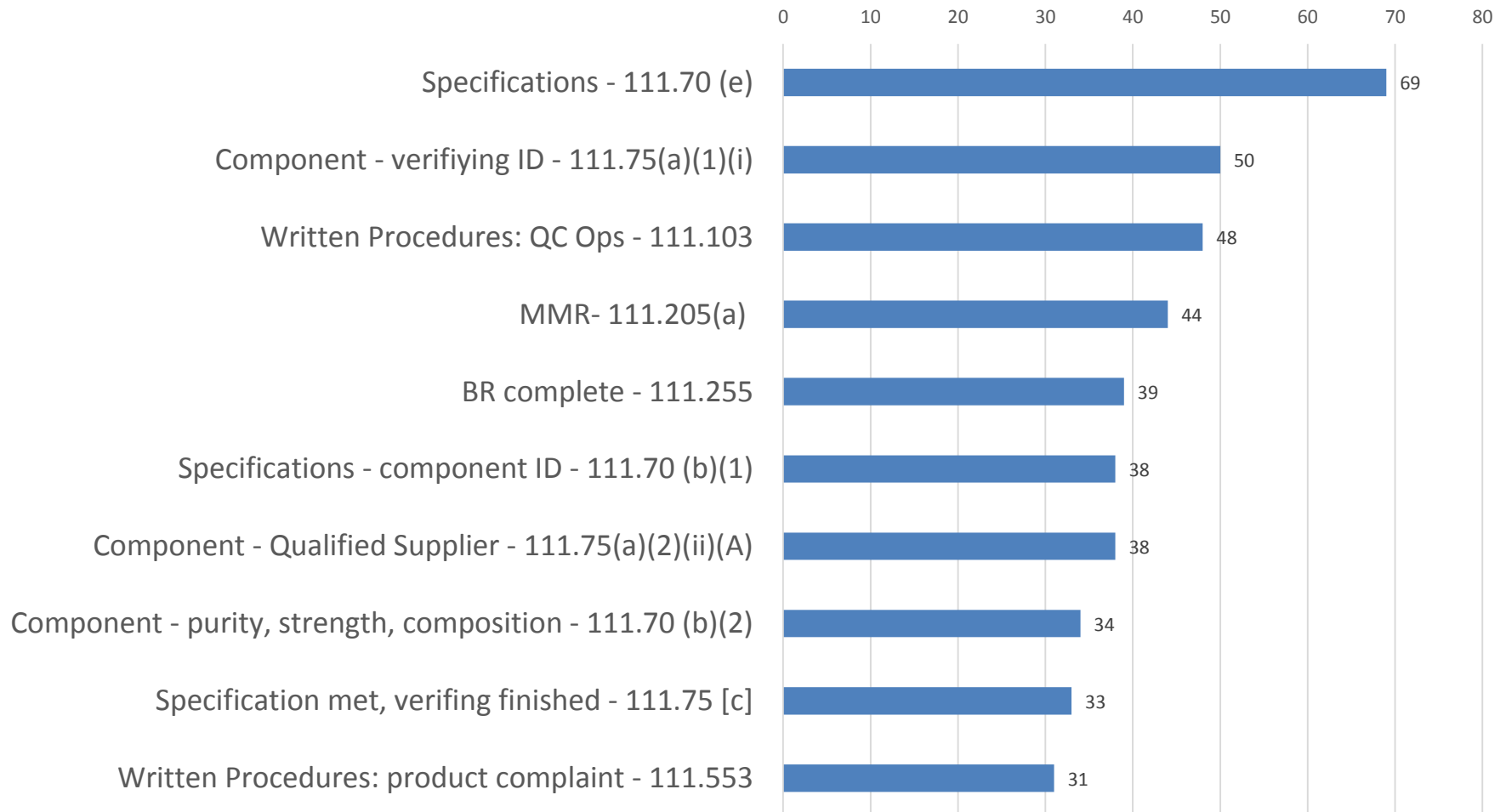
Number of 483s Issued from the System*

Inspections ending between 10/1/2015 and 9/30/2016

Center Name	483s Issued
Biologics	84
Bioresearch Monitoring	215
Devices	934
Drugs	691
Foods	2196
Human Tissue for Transplantation	92
Parts 1240 and 1250	97
Radiological Health	32
Veterinary Medicine	281
Sum Product Area 483s from System*	4622
Actual Total in System 483s**	4528



Summary of Dietary Supplement Citations From FDA FY16



FDA Dietary Supplement Compliance Program Guide

<https://www.fda.gov/food/complianceenforcement/foodcomplianceprograms/ucm071547.htm>

The screenshot displays the FDA's website interface. At the top, the U.S. Department of Health and Human Services logo is visible. Below it, the FDA logo and "U.S. FOOD & DRUG ADMINISTRATION" are prominently displayed. A search bar labeled "Search FDA" is located on the right. A navigation menu includes links for Home, Food, Drugs, Medical Devices, Radiation-Emitting Products, Vaccines, Blood & Biologics, Animal & Veterinary, Cosmetics, and Tobacco Products. The "Food" section is selected, leading to a breadcrumb trail: Home > Food > Compliance & Enforcement > Food Compliance Programs. A blue button labeled "Food Compliance Programs" is present. The main heading reads: "Dietary Supplements-Import and Domestic (Implementation Date: 03/26/2010) includes Pen & Ink Changes as of 07/08/10 to Parts I and II". Below this, social media sharing options for Facebook, Twitter, LinkedIn, Pinterest, Email, and Print are provided. The document title is "CHAPTER 21 - FOOD COMPOSITION, STANDARDS, LABELING, AND ECONOMICS". The publisher is "FOOD AND DRUG ADMINISTRATION" and the document is the "COMPLIANCE PROGRAM GUIDANCE MANUAL". The specific program is "PROGRAM 7321.008". The subject is "SUBJECT: DIETARY SUPPLEMENTS--IMPORT AND DOMESTIC". The implementation date is "IMPLEMENTATION DATE: 7/8/2010".

U.S. Department of Health and Human Services

FDA U.S. FOOD & DRUG ADMINISTRATION

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Food

Home > Food > Compliance & Enforcement > Food Compliance Programs

Food Compliance Programs

Dietary Supplements-Import and Domestic (Implementation Date: 03/26/2010) includes Pen & Ink Changes as of 07/08/10 to Parts I and II

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CHAPTER 21 - FOOD COMPOSITION, STANDARDS, LABELING, AND ECONOMICS

FOOD AND DRUG ADMINISTRATION
COMPLIANCE PROGRAM GUIDANCE MANUAL

PROGRAM 7321.008

SUBJECT: DIETARY SUPPLEMENTS--IMPORT AND DOMESTIC

IMPLEMENTATION DATE: 7/8/2010

FDA Dietary Supplement Compliance Program Guide

A. GMP Violations

Under section 402(g)(1) of the Federal Food, Drug and Cosmetic Act (the Act), a dietary supplement is adulterated if it has been prepared, packed, or held under conditions that do not meet current good manufacturing practice regulations.



Major deviations from cGMPs include:

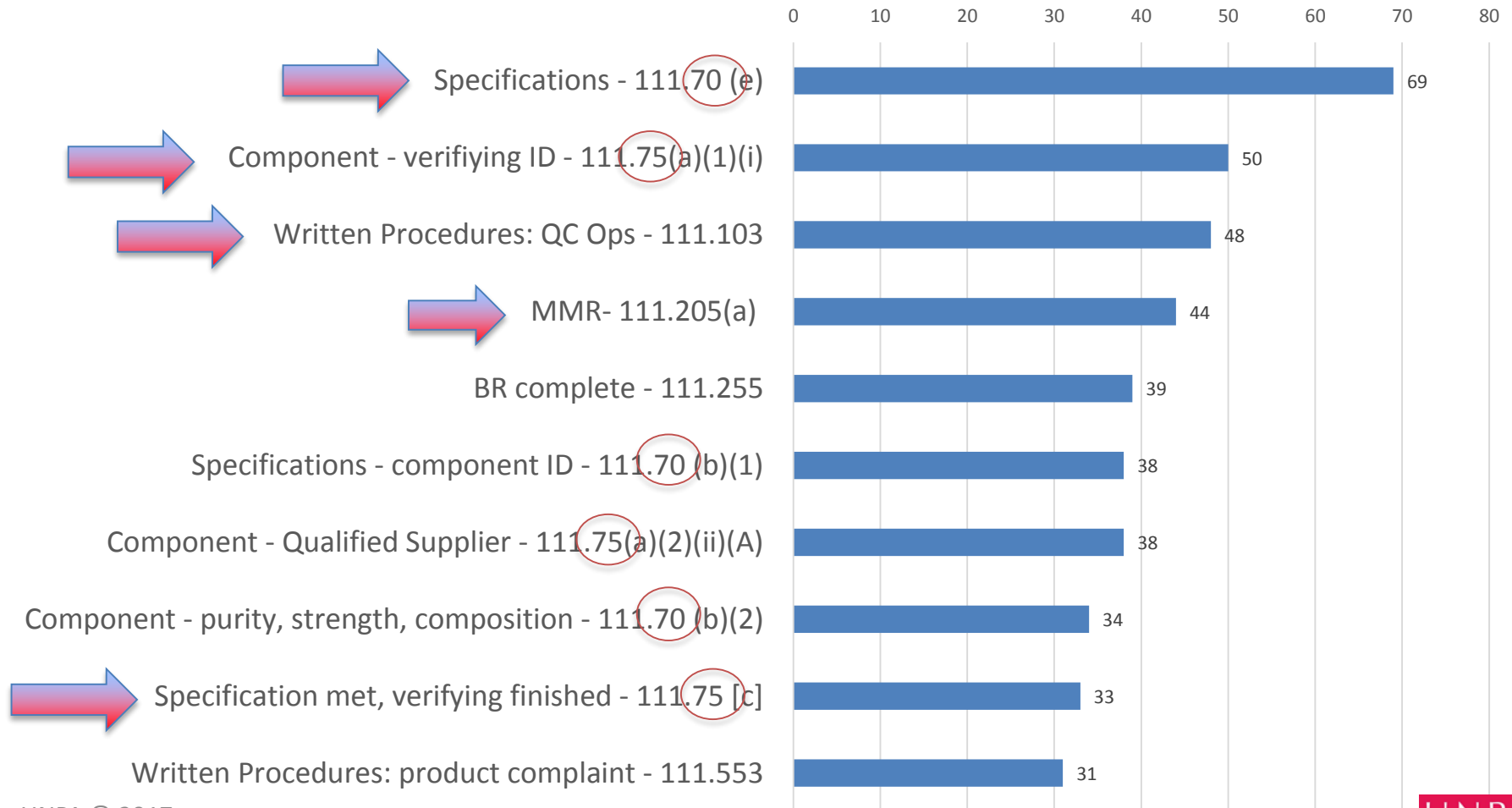
- Lack of master manufacturing records or significant requirements not included;
- Lack of finished product release criteria or failure to test (all or subset of finished batches) or meet finished product release criteria critical to product safety and quality;
- For significant dietary ingredients, e.g. those that make up the bulk of the product, failure to establish specifications for incoming material or failure to conduct identity testing;
- No quality control review procedures or significant quality control procedures not implemented;
- No batch records;
- Significant physical plant deficiencies.

“Districts should prepare and submit to CFSAN/Division of Enforcement (DE)/Labeling Compliance Team (LCT) a **Warning Letter** recommendation for any firm with any of the above deviations.”

21 CFR Part 111

- 111.70 - Specifications
- 111.75 – Specifications Met
- 111.55 – Sub Part-E: Production and Process Control System

Summary of Dietary Supplement Citations From FDA FY16



Sec. 111.70

What Specifications Must You Establish?

For what?

- Raw material
- In-process
- Labels
- Finished product

Including:

- Identity
- Purity
- Strength
- Composition
- Limits of contaminants or adulterants
- Any point, step, or stage in MFG
- Packaging

Sec. 111.75

Responsibility for determining if specification is met

Certificate of Analysis

111.75a(2)(ii)(B)

- Description of the test or method used
- Limits of the test
- Actual results
- Units of Measure
- Reference

UNPA presents:

GMP INSPECTION TRAINING

How to avoid citations and prepare for
your next FDA inspection





Taught by former FDA
Investigator Larisa Pavlick

June 27-28 | Provo, Utah



Summary

- 
- 
- Quality Initiatives
 - Training and Education Program
 - ✓ FSMA, PCQI, FSVP
 - ✓ Dietary Supplement GMP Training
 - Questions?

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