FOOD AND DRUGS AUTHORITY
GHANA

GUIDELINES FOR BATCH RELEASE OF VACCINES

INFLUENZA VACCINE

FDA/BPU/BR-V/2013/01

1 Introduction

These guidelines outline the minimum Ghana Food and Drugs Authority batch release requirements for the registration of immunological products.

All general and specific monographs relevant to the products apply (Refer to section 112 of The Ghana Public Health Act 851).

2 Sampling and tests to be performed by the Control Laboratory

The number of samples (final containers) used for batch release laboratory tests should be statistically justified.

The Control Laboratory should perform the following tests on the final container:

- Haemagglutinin antigen concentration/identity test using reference materials
- Bacterial endotoxins content on the first five (5) lots of monovalent bulk purified surface antigen vaccine following the introduction of a new influenza strain.
- Purity

3 Protocol submission

A model protocol is given below. The protocol for a specific product may differ in detail but it is essential that all relevant details demonstrating compliance with the registration requirement and the official monograph should be given. WHO requirements may also serve as the model for the content and presentation of the protocol data. Results of the tests are required (pass or fail is not sufficient, results of re-test if applicable should be given.

Sufficient detail should be supplied to allow re-calculation of tests values. Specifications for Each test and dates when they were performed should also be included. Results of qualification test on reference materials should be given for each new in-house reference material.

3.1 Summary information on the finished product (final lot)

Proprietary, Commercial or Trade name: ....
International Non-Proprietary name (INN): ………………………..
Common name of product: ....

Batch number(s): ....
Finished product (final lot): ....
Final bulk: ....
Type of container: ....
Total number of containers in this batch: ....

Number of doses per container: ....

Composition/volume of single human dose: ....

Prescribed qualitative and quantitative strain composition:

- Strain 1 ....
- Strain 2 ....
- Strain 3 ....

Date of expiry: ....
Storage temperature: ....

Name and address of manufacturer(s): ....

Name and address of registration holder if different: ....

3.2 Production information

Site of manufacture: ....
Date of manufacture: ....

Summary information scheme on batch specific production data including a flowchart, dates of different production stages, identification numbers and blending scheme.

3.2.1 Starting materials

Virus seed lots

Virus strain: ....
Source and lot number of primary seed: ....
Passage history on receipt: ....
Date of receipt: ....
Comments: ....
Storage conditions: ....
Working seed lot number: ....
Passage history of seed lot(s): ....

Date of approval of protocols indicating compliance with the requirements of the relevant official monographs and conditions of registration: ....

Added antibiotics: ....
Storage conditions of working seed lot(s): ....

Tests on working seed virus

Identity
(a) Haemagglutinin
Method: ....
Specification: ....
Date: ....
Result: ....

An example of how this data could be presented as follows:

HI titre

	Antiserum			
Antigen	Shang/11/87	Sich/2/87	Taiw/1/86	Yam/16/88
A/Shang/11/87 (H3N2)Ref				
A/Sich/2/87 (H3N2)Ref				
A/Taiw/1/86 (H1N1)Ref				
B/Yam/16/88 Ref				
A/Shang/11/87 Working seed Lot N°...				
A/Sich/2/87 Working seed Lot N°...				
A/Taiw/1/86 Working seed Lot N°...				
B/Yam/16/88 Working seed Lot N°...				

(b) Neuraminidase

Method: ....
Specification: ....
Date: ....
Result: ....

An example of how this data could be presented as follows:

NI titre

	Antiserum		
Antigen	Anti-N2 NA	Anti-N1 NA	Anti-B NA
A/Shang/11/87 (H3N2)Ref			
A/Sich/2/87 (H3N2)Ref			
A/Taiw/1/86 (H1N1)Ref			
B/Yam/16/88 Ref			
A/Shang/11/87 Working seed Lot N°...			
A/Sich/2/87 Working seed Lot N°...			
A/Taiw/1/86 Working seed Lot N°...			
B/Yam/16/88 Working seed Lot N°...			

Infectivity titre

Method: ....
Specification: ....
Date: ....
Result: ....

3.2.2. Intermediate stages

3.2.2.1 Monovalent virus pool

Virus strain: ....
Batch number(s): ....
Date of inoculation: ....
Date of harvesting: ....
Method of disruption: ....
Date of disruption: ....
Tests for chemicals of disruption: ....
Method of inactivation: ....
Date of inactivation: ....
Concentration/purification procedure: ....
Added antibiotics: ....
Filtration details (if any): ....

Tests on monovalent virus pool:

Test for inactivation
Method: ....
Specification: ....
Date: ....
Result: ....

Test for neuraminidase (first three pools only)
Method: ....
Specification: ....
Date: ....
Result: ....

Test for haemagglutinin antigen content
Method: ....
Specification: ....
Date: ....
Result: ....

Identity of haemagglutinin
Method: ....
Specification: ....
Date: ....
Result: ....

<u>Purity</u> (for surface antigen vaccines only)
Method: ....……………..
(e.g.type of PAGE system , reducing/non-reducing conditions)
........................……………..
Specification: ....
Date: ....
Result: ....
(e.g.HA,M and NP bands must be identified. Comparison between whole virus and surface antigen preparation must be made)
<u>Test for sterility</u>
Method: ....
Media: ....
Volume inoculated: ....
Date test on: ....
Date test off: ....
Result: ....

3.2.2.2 F<u>inal bulk vaccine</u>

Batch number: ....
Batch number and volume of monovalent
pools used to prepare bulk: ....……………………
Other substances added and volumes: ....
Date of blending: ....
<u>Chemical test</u>s (e.g. preservative; include test for mercury, if appropriate)
Method: ....
Specification: ....
Date: ....
Result: ....
<u>Test for sterility</u>
Method: ....
Media: ....
Volume inoculated: ....
Date test on: ....
Date test off: ....
Result: ....

3.3 Batch of finished product (final lot)
Batch number: ....
Date of filling: ....
Type of container: ....
Number of containers after inspection: ....
Filling volume: ....

<u>Appearance</u>
Method: ....
Specification: ....
Date: ....
Result: ....
<u>Extractable volume</u>
Method: ....
Specification: ....
Date: ....
Result: ....
<u>pH</u>
Method: ....
Specification: ....
Date: ....
Result: ....
<u>Antimicrobial preservative</u>
Method: ....
Specification: ....
Date: ....
Result: ....

<u>Identity for haemagglutinin</u>
Method: ....
Specification: ....
Date: ....
Result: ....
<u>Test for sterility</u>
Method: ....
Media: ....
Volume inoculated: ....
Date test on: ....
Date test off: ....
Result: ....

<u>Haemagglutinin antigen content</u>
Method: ....
Specification: ....
Date: ....
Result: ....
<u>Total protein</u> (this test may be performed on bulk vaccine)
Method: ....
Specification: ....
Date: ....
Result: ....

<u>Abnormal toxicity</u> (unless deletion authorised)
Method: ....
Specification: ....
Date: ....
Result: ....

<u>Ovalbumin</u> (this test may be performed on final bulk vaccine)
Method: ....
Specification: ....
Date: ....
Result: ....

<u>Bacterial endotoxins</u>
Method: ....
Specification: ....
Date: ....
Result: ....

Date of start period of validity ....

4 Certification

Certification by qualified person taking the overall responsibility for production and control of the product:

I herewith certify that __________________(name of the product) batch number_____ was manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements. This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate that the material is free from transmissible spongiform and encephalopathy.

Name: ____

Designation: ____

Date: ____

Signature: ____