

# EU GMP Part I Annex 1 draft

12.11.2020

# Content

- Schedule
- Content
- Questions??

# Annex 1, manufacturing of sterile pharmaceutical products

- Annex 1 draft, second targeted consultation to industry ended in July 2020, prolonged cause of Covid
- 2000 comments  
[https://ec.europa.eu/health/medicinal\\_products/consultations/2020\\_sterile\\_medicinal\\_products\\_en](https://ec.europa.eu/health/medicinal_products/consultations/2020_sterile_medicinal_products_en)
- WHO ja PIC/S joint the drafting group
  - PIC/S Annex 1 second targeted consultation on-goin
  - <https://picscheme.org/docview/1985>

# Annex 1 content

## 1.Scope



## 2.Principles



## 3.PQS, laatujärjestelmä



## 4.Premises



## 5.Equipment

# Annex 1 content



6. Utilities



7. Personell



8. Production and Specific technologies



9. Viable and non-viable environmental & process monitoring



10. QC

# 1.Scope

- Provides guidance to manufacturing of all sterile products using QRM principles
  - So that microbial particulate and pyrogen contamination is prevented in the final product

# 2.Principles

Key areas:

- Facility, equipment and process design
- Personnel
- Process and monitoring systems

Managed according to QRM principles

CCS= **C**ontamination **C**ontrol **S**trategy

## 3.PQS = Product Quality system

- Effective risk management system is implemented into all areas of the product life cycle
- Non-conformatives/deviations => root cause analysis, impact assessment





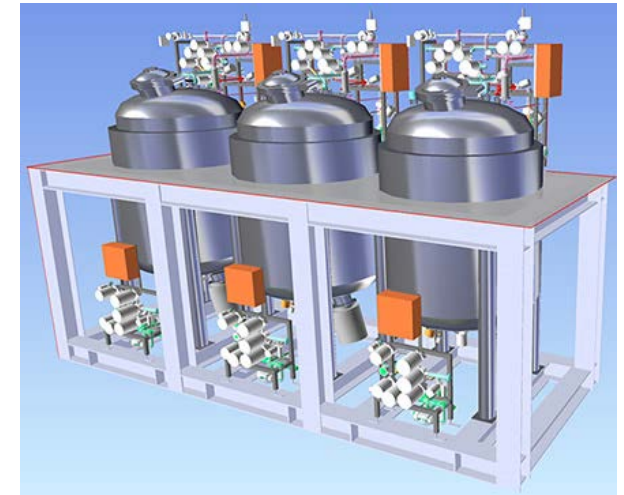
# 4.Premises

- Conducting all non-essential processes outside clean areas
- Reference to Annex 15
- Barrier technologies
- Airlock design (unidirectional flow)
- ISO 14644 implementation (selecting particle locations)
- Disinfection process should be validated



# 5. Equipment

- Highlights the separation of personnel and processes
- Written detailed description of equipment's, reviewed in CCS
- Direct and **indirect** parts (used in sterile process) should be sterilized



# 6. Utilities

- Direct contact to product , part of the product, contact surfaces
- Minimizing biofilm formation in water systems





# 7. Personell

- Biggest section
- All unnecessary activities should be performed outside cleanroom areas ( inspection windows etc)
- Training to everyone entering to clean area (qualification and disqualification)
- Electronical devices not allowed, unless supplied by the manufacturer
- Clean room gowning
  - Integrity
  - Goggles
  - Dedicated laundry

# 8. Production and specific technologies

- More details to production and specific technologies
- PUPSIT (pre-use post sterilization) to all large volume products
- Terminally sterilized and aseptic processes
  - Finishing of sterile products
  - Sterilization
  - Form fill seal , blow fill seal
  - Lyofilization
  - Closed system
  - SUS- single use system



# 9. Viable and non-viable environmental & process monitoring

- Non viable and viable monitoring
- Aseptic process simulation
- A-grade microbes limits ;no growth



# 10. QC



- Bioburden and sterility assay samples: samples should be taken to be representative of the worst case scenario.
- Bioburden assay from each aseptic batch and assay from terminally sterilized batch (overkill) on defined
- If it not possible analyze sterility prior final release ( e.g. short expiry) , risks should be identified in CCS (mitigate and minimize the risks)

# Summary

- The expectation for each facility to have in place a formal, holistic contamination control strategy, focused on minimizing contamination control with respect to sterile manufacturing
- Additional requirements for cleanroom classification (beyond ISO requirements)
- A major focus on risk-based approaches
- Recommendations for the wider use of barrier technology
- A strong focus on personnel controls, such as gowning, and training



Kiitos!