ACP-EU TBT Programme

090-16 - Training for Regulatory Authorities, Businesses and Communities of the ARSO Members from EAC and SADC on Risk Management in Regulatory Frameworks: Towards a Better Management of Risks

Fishery processing plant food safety and risk management

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Wilvis bay, Namibia – SADC *07-09 December 2016*

Part I

Fishery processing plant food safety

CONTENT

- Relevant legislation
- General Requirements to surroundings and constructions
- Construction requirements in areas where food is handled
- Specific criteria for fisheries products
- Application of Pre-requisite programs
- Health Standards for fisheries products
- Application of HACCP
- Risks and the above subjects

Objective

- ❑ To discuss the harmonized application of Hygiene requirements laid down in the food safety package (Regulation 852/2004 and 853/2004) and their possible risk
- ❑ Observation and suggestion of the construction, layout, equipment
- ❑ Risk management of Good Hygiene Practices and other pre-requisite programmes
- ❑ Risk of HACCP program in processing plan

Scope of the training

Presentation with practical exercises

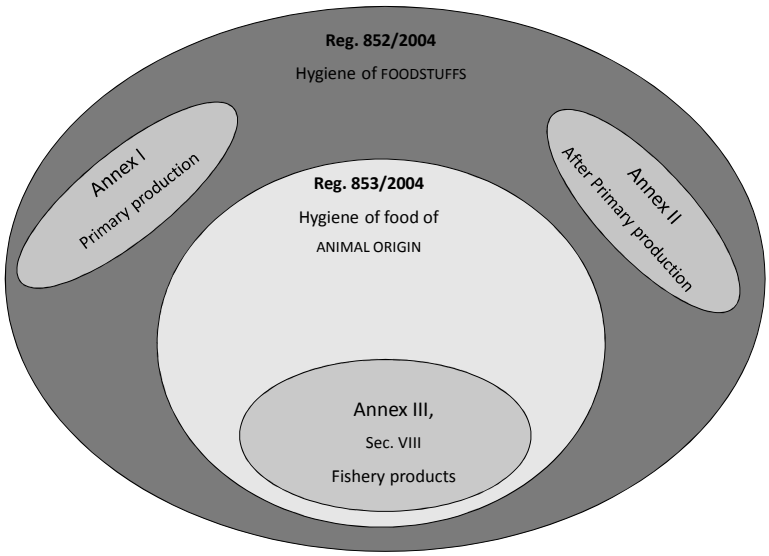
RISK ESPOSURE, RISK SENSITIVITY AND MITIGATION ACTIVITIES for the PRE-REQUIISTE AND HACCP

Preparation of the field visits

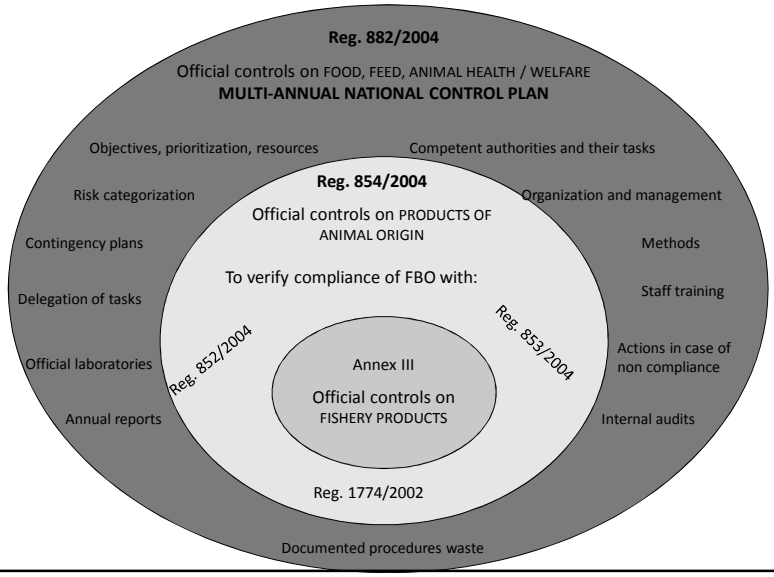
and ACTION PLAN

TBT PROGRAMME

I- Introduction – Legislation for FBO



I- Introduction – Legislation for CA



Official controls fishery products

ORGANOLEPTIC EXAMINATIONS (Marketing Standards)	**Regulation 2406/96**
FRESHNESS INDICATORS (TVB-N)	**Regulation 2074/2005**
HISTAMINE (Microbiological Criteria)	**Regulation 2073/2005**
RESIDUES (Aquaculture) Analytical methods & interpretation of results	**Directive 96/23** **Decision 2002/657**

CONTAMINANTS (Maximum levels)	**Regulation 1881/2006**
Sampling methods & methods of analyses: *heavy metals*	**Regulation 333/2007**
Sampling methods & methods of analyses: *tin in canned foods*	**Regulation 333/2007**
Sampling methods & methods of analyses: *dioxins/PCBs*	**Regulation 1883/2006**
Sampling methods & methods of analyses: *benzo(a)pyrene*	**Regulation 333/2007**
MICROBIOLOGICAL CHECKS (Ready-to-eat, cooked)	**Regulation 2073/2005**

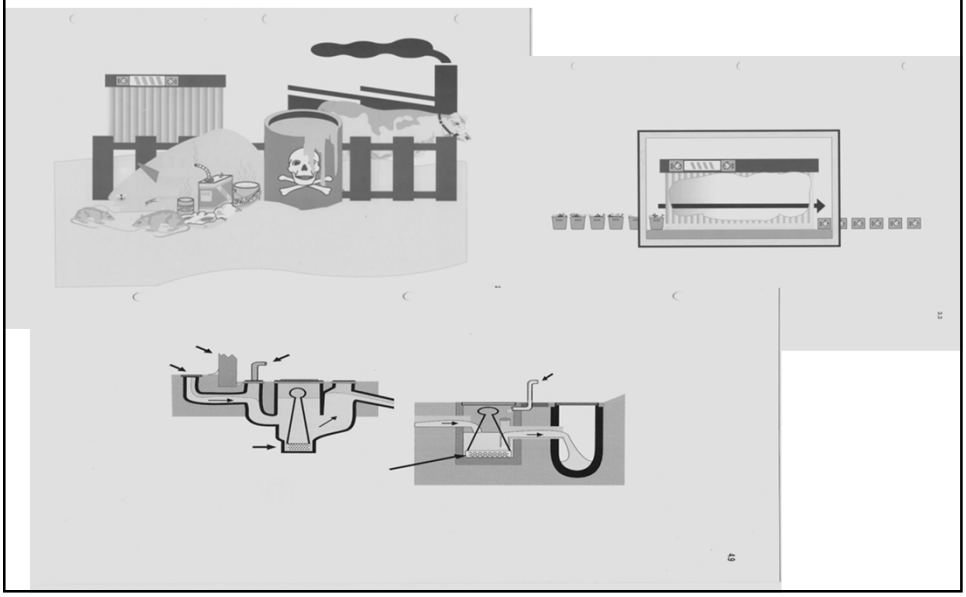
1. Surroundings and construction

Diagnosis Grid 01	Objective & Reference in the legislation
1. Surroundings construction and Lay out 2. Ventilation 3. Staff Facilities 4. Light 5. Drainage System 6. Storage of Chemicals	*To ensure that design, construction, location and size of the food premises allow for adequate control of food hygiene and safety* Reg 852/2004, Annex II, chapter I-1-10

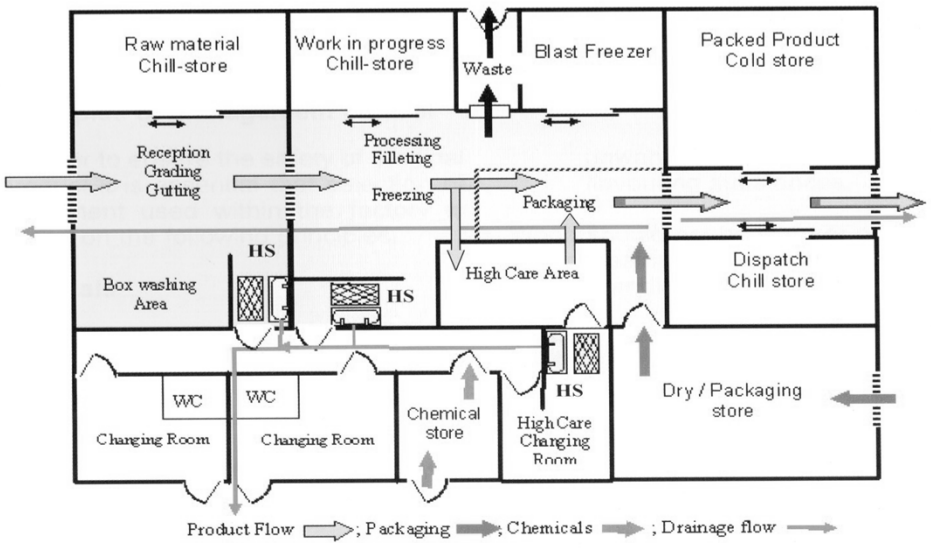
Sufficient for handling and processing under hygienic conditions

Lay out, storage T°, toilets facilities, hand washing facilities

Separate facilities for storage of hazardous chemicals



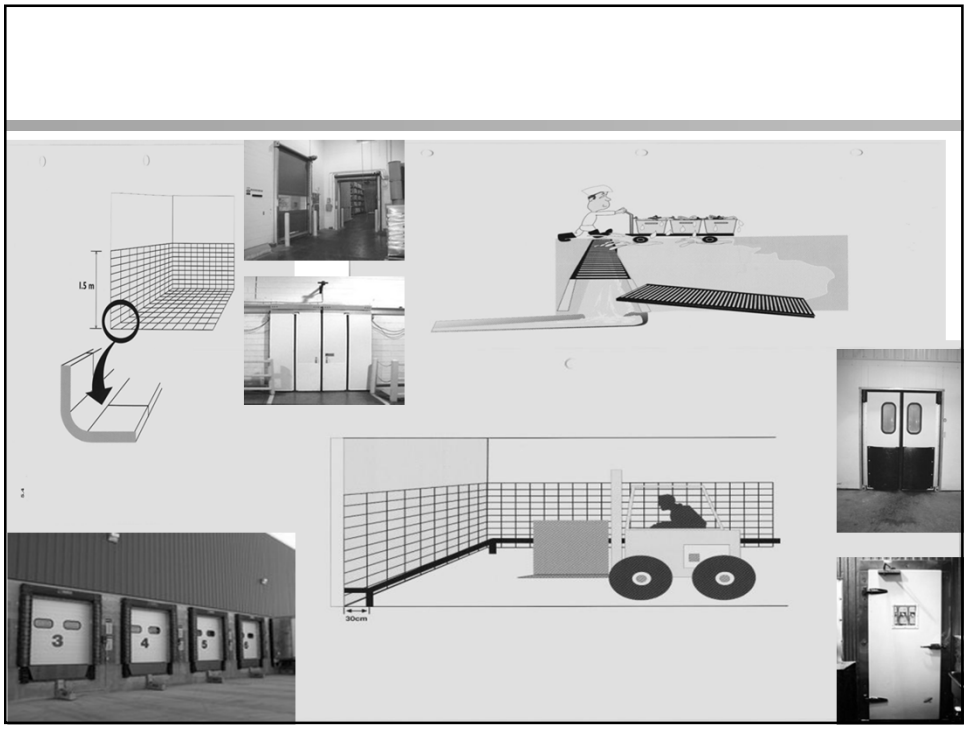
Ideal FBO facility lay out



2. Construction requirements in areas where food is handled

Diagnosis Grid 02	Objective & Reference in the legislation
7. Floors 8. Walls 9. Ceilings 10. Windows and other openings 11. Doors	*To ensure that the design and layout permit good hygiene practices including protection against contamination between and during processing operations* Reg. 852/2004, Annex II, chapter II-1a-1f

Materials: Impervious, non-absorbant, non-toxic
Maintenance: Sound condition, easy to clean
Design: Prevent accumulation of dirt and access of insects



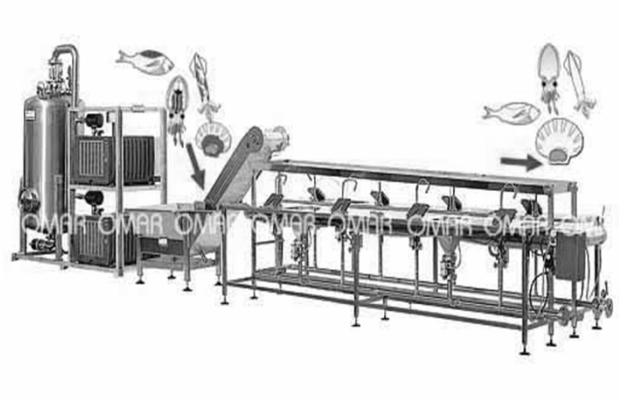
2. Construction requirements in areas where food is handled

Diagnosis Grid 02	Objective & Reference in the legislation
12. Surfaces in contact with food 13. Cleaning of working utensils 14. Facilities for washing of food	*Same as above* Reg. 852/2004, Annex II, chapter II 1f, II 2-3, V 1-3

Materials: Impervious, non-absorbant, non-toxic

Maintenance: Sound condition, easy to clean

Facilities for cleaning of utensils and equipment: adequate, easy to clean, supply of hot and cold water



2. Construction requirements in areas where food is handled

Diagnosis Grid 02	Objective & Reference in the legislation
15. Articles fittings and equipment	*Articles, fittings and equipment in contact with food shall be constructed and maintained in good order to avoid any risk of contamination.* Reg. 852/2004, Annex II, chapter V 1-3

Adequate cleaning of equipment and surrounding area is ensured

Construction minimizes risk of contamination

Materials allow efficient cleaning and disinfection

Effectively cleaned and disinfected at sufficient frequency

Fitted with appropriate control devices

3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
Requirements, including in particular: • Infrastructure and equipment requirements • Raw materials • Safe handling of food • Food waste handling • Pest Control Procedures • Sanitation Procedures • Water quality • Maintenance of cold chain • Staff Health • Personal Hygiene • Training	*Prerequisite requirements provide foundation for effective HACCP Implementation* Reference: HACCP Guidance document Annex II ch. 5

3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
16. Raw materials, Ingredients, packaging and other input materials 16.1 Controlled at receiving 16.3 Stored to prevent deterioration 16.4 Stored protect from contamination	*Control at receiving and good handling practices at storage and at all processing steps shall ensure that the final products are fit for human consumption and are not injurious to human health.* References: Reg. 852/2004, Annex II, chap. IX 1-2 HACCP Guidance document Annex II ch. 5

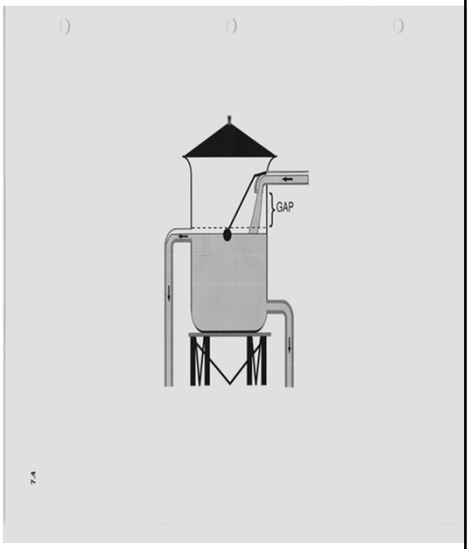
16.2: Are rejected if known or reasonably expected to be contaminated with food safety hazards which cannot be eliminated through normal sorting, preparation or processing.

3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
18. Water 18.1 Adequate supply of potable and/or clean water 18.3 Separate pipe system for non potable water 18.5 Recycled water of potable quality	*Water supply system shall ensure that only potable or clean water can be used in contact with fishery products*. References; Reg. 852/2004, Annex II, chapter VII 1-6 EC Directive 98/83Annex II table A and B

Documents on water supply system: map of supply system, monitoring plan, results of analysis

Procedures for monitoring, corrective actions and internal verification against process criteria and quality criteria

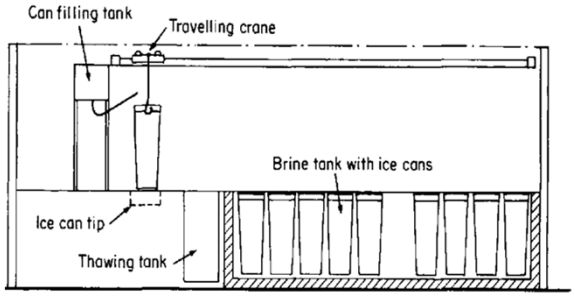


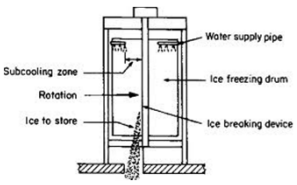
3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
19. Ice 19.1 Made from potable and/or clean water 19.3 Protected from contamination during production, handling and storage **20. Steam** 20.1 Not representing any hazard in contact with food	*Water and ice supply system shall ensure that only potable or clean water can be used in contact with fishery products*. References; Reg. 852/2004, Annex II, chapter VII 1-6 EC Directive 98/83, Annex II table A and B

Own production: Integrate in control of water

External supply of ice: Control suppliers of production and transport against defined criteria for facilities and handling. Control quality at receiving against defined criteria (ref. point 16).





3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
21. Food waste and other refuse 21.1 Removed quickly from areas where food is present 21.2 Deposit in closable containers or other appropriate facilities 21.4 Facilities for storage and disposal clean and protected from entrance of pests	*Food waste and other refuse shall be kept away from products and hygienically handled and stored in order to minimize risk for cross-contamination to products* Reg. 852/2004, Annex II, chapter VI 1-4

Materials, construction… allows easy cleaning and disinfection

Objective evidences that procedures are efficient

3. Prerequisite Programmes

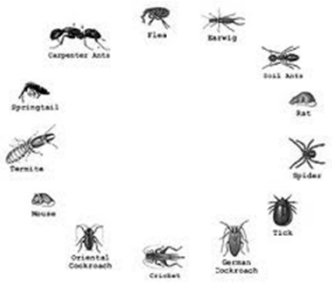
Diagnosis Grid 03	Objective & Reference in the legislation
22. Hazardous and/or inedible substances (feed, disinfectants, cleaning agents, etc.) 22.1 Adequately labelled 22.2 Stored in separate and secure containers	*To control the chemical hazards in the surrounding areas of processing and storage* Reg. 852/2004, Annex II, chapter IX , 8 Ref. also to Item 6 above

3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
23. Pest Control 23.2 Control in surroundings 23.2 Control in processing areas	*To control (prevent and eliminate) pests from contaminating product* Reg. 852/2004, Annex II, chapter IX 4 Ref. also to Item 1 above

Includes: insects, mice/rats, birds and domestic animals

Procedures implemented and effective (objective evidence)



3. Prerequisite Programmes

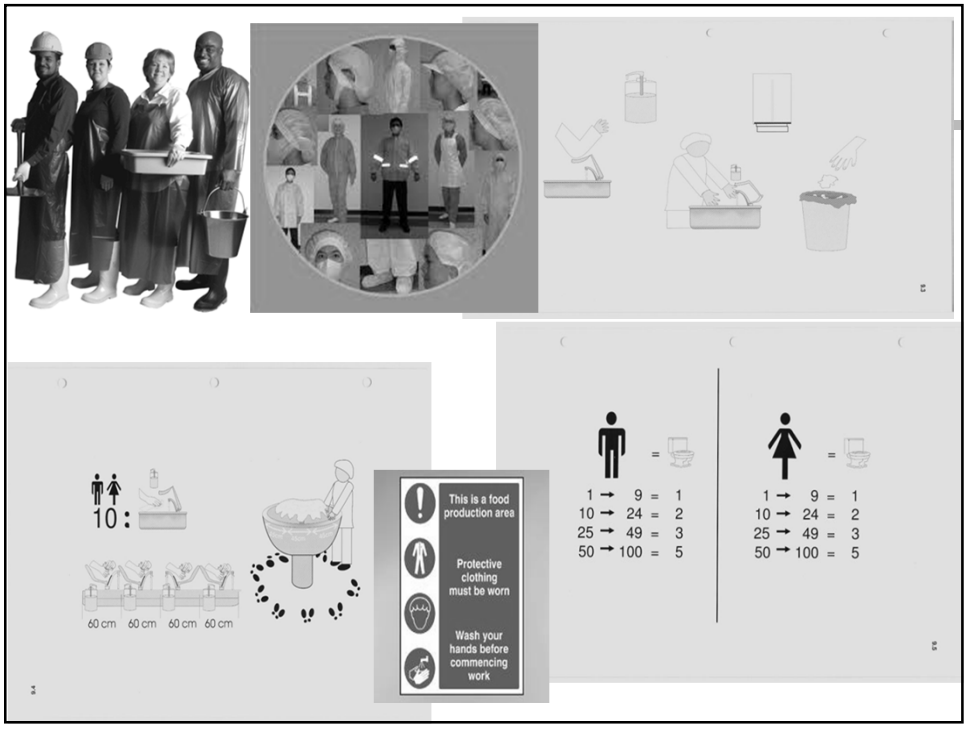
Diagnosis Grid 03	Objective & Reference in the legislation
24. Personal Hygiene 24.1 All staff members wear suitable protective clothing 24.2 Protective clothing are clean and maintained in a clean condition 24.3 All staff members maintain a high degree of personal cleanliness	*To minimise the risk for transmission of human pathogenic microorganisms, and other hazards by staff who handle food.* Reference: Reg. 852/2004, Annex II, chapter VIII 1

Laundry facilities and Procedures for change of clothes

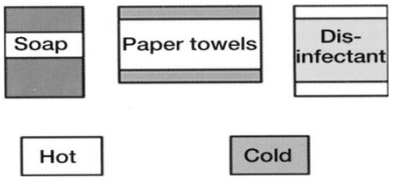
Procedures and methods for hand washing

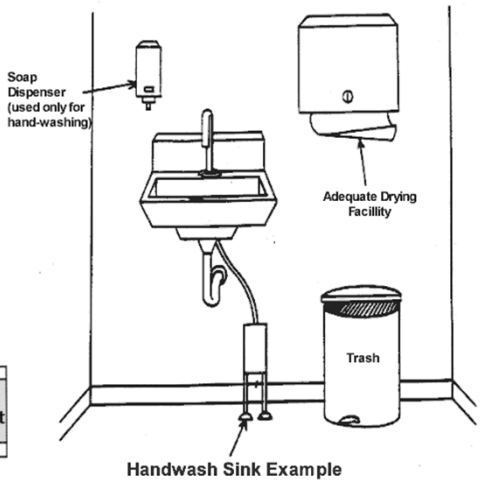
Procedures for use and maintenance of boot washing basins

Monitoring and internal verification



Boot washing plant





3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
25. Staff health 25.1 Staff who may carry diseases that can potentially be transmitted through food or have afflictions such as infected wounds, skin infections, sores or diarrhoea are not allowed to handle food	*To ensure that food handlers are not a source of contamination.* Reg. 852/2004, Annex II, chapter VIII 1

Procedures for staff reporting of diseases

Procedures for monitoring

3. Prerequisite Programmes

Diagnosis Grid 03	Objective & Reference in the legislation
26. Sanitation (cleaning and disinfection) 26.1 and 26.2 Procedures for cleaning and disinfection are adequately described and effectively implemented: ■ processing facilities and equipment before, after and during processing ■ staff facilities	*To ensure that processing facilities and equipment in contact with the product is kept clean and not a source of contamination as per Regulation* Reg. 852/2004 Annex II Ref. also to Items 1 and 15 above

Criteria defined, Monitoring of efficiency
Objective evidence that procedures are efficient

3. Prerequisite Programmes

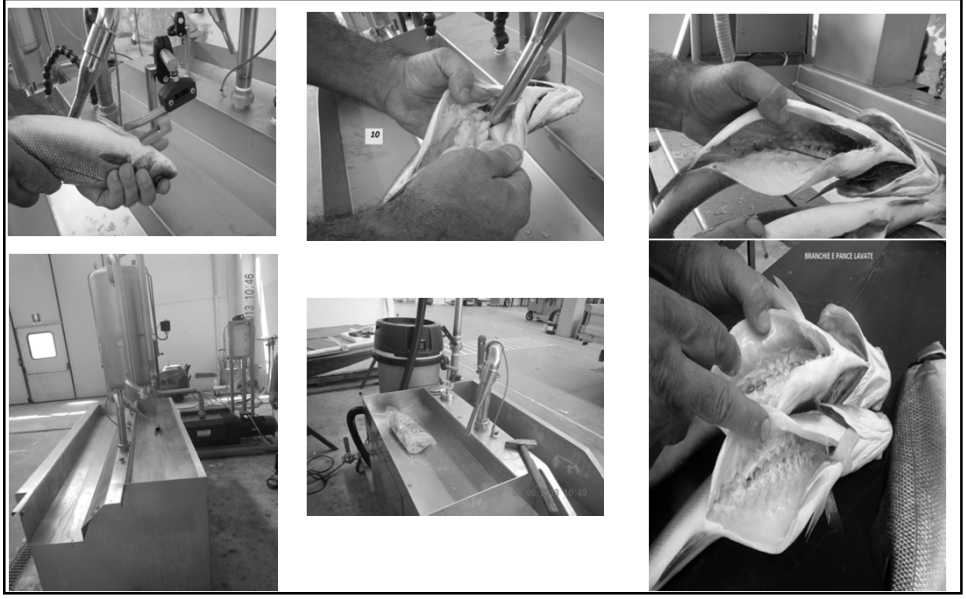
Diagnosis Grid 04	Objective & Reference in the legislation
27. Traceability and recall Procedures 27.1 Adequate described 27.2 Identification Marks applied 27.3 Traceability at primary producer level	*To prevent risks to the final consumer and collaborate with competent authorities in risk management,* Reference: *Reg. 404 2011 EU Art 67* *Reg. 1224 2009 EU Art 58* Reg. 178/2002, Art. 3, 15 and Art. 18 Reg. 178/2002, Art.19 Reg. 853/2004 Art. 5, 6 and Annex II Reg. 852/2004 Annex I, Part A III-7,8 Reg. 853/2004 Annex II, VII ch. 1

Re-call: Food Business responsibility to inform consumers and competent authority if knowledge about safety risk in products on the market
Traceability: Only Inter-territorial Effect (ie. not 3. countries). Only where specific requirements apply

4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
28. Procedures <u>designed to protect food</u> at all stages of production, processing and distribution 28.1 Protect against contamination 28.2 Temperatures below levels which might result in a risk to health 28.3 Rapid cooling 28.4 Thawing processes designed to minimize risk for growth and contamination	*To minimize the risk of product contamination from pathogenic micro-organisms, chemical and physical hazards and to minimize the risk for growth of pathogenic micro-organisms*. References: Reg. 852/2004, Annex II, chapter IX 3,**5,**6,7 Ref. also point 29

Cold chain not interrupted
Limited periods to accommodate practicalities of handling



3. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
29. Fresh Products – raw materials handling 29.1 Store under ice 29.2 Melt water can drain away 29.3 Storage facilities allow melting ice 29.4 Cooled water or ice for raw materials from vessels or aquaculture 29.5 Cleaning of pre-processed raw materials (headed and gutted) 29.6 Hygiene in pre-processing (heading and gutting)	*GHP and GMP imply that:* *Fresh fishery products (raw materials) shall be kept at temperature approaching that of melting ice and handled and stored to avoid contamination and or spoilage of the materials* Reg. 853/2004, Annex III, section VIII, chapter III A1, A4, A5 Reg. 853/2004, Annex III, section VIII, chapter. VII-1, 2, 3

Fresh product receiving and processing

4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
30. Fresh Products – raw materials handling 30.1 Carried out hygienically 30.2 Tools used are clean 30.3 Products removed from the worktables without delay 30.3 Products appropriately chilled without delay	Reg. 853/2004, Annex III, section VIII, chap. III A2, A3

Procedures for cleaning/changing of tools

Example of FBO processing room

TBT PROGRAMME
OVERCOMING TECHNICAL BARRIERS TO TRADE

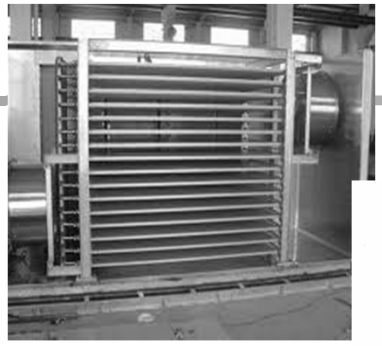
4. Process design and control

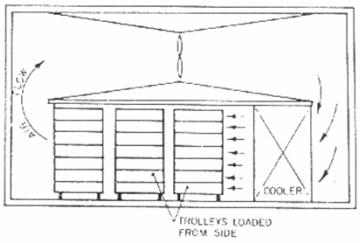
Diagnosis Grid 04	Objective & Reference in the legislation
31. Frozen Products 31.1 Capacity of freezing equipment 31.2 Capacity of cold storages 31.3 Easy to read T° recording device 31.3 Temperature recording device correct placed	*GHP and GMP imply that:* *Products shall be frozen rapidly to at least -18 C in the core and kept at at -18C or lower. Storage temperatures shall be monitored and documented.* Reg. 853/2004, Annex III, section VIII, chapter III B (ref: section VIII, ch. 1 part 1, C1, C2) Ref. also to Item 15.6 above

"Rapidly achieve -18 C°", "Maintain product temperature at least -18 C°"

Monitoring: Evidence of temperature control

Corrective actions: Evidence of application and efficiency in case of deviations from requirements





Air blast freezer arrangement showing the cooler acting as an air diffuser

TBT PROGRAMME
OVERCOMING TECHNICAL BARRIERS TO TRADE

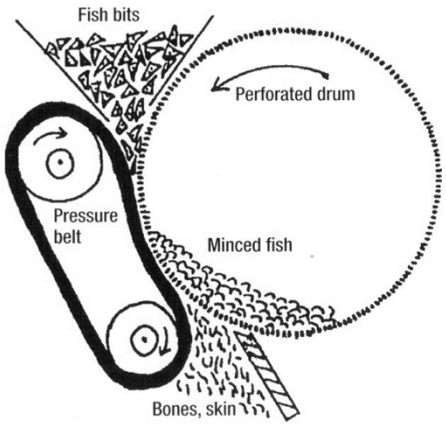
4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
32. Mechanically separated Fishery Products 32.1 Raw materials 32.2 Separation Process 32.3 Further processing	*GHP and GMP imply that:* *Mechanically separated fishery products shall be produced from fresh materials excluding guts, and frozen or further processed without delay* Reg. 853/2004, Annex III, section VIII, ch. III C1, C2.

Only whole fish and bones after filleting - no guts

Quick processing

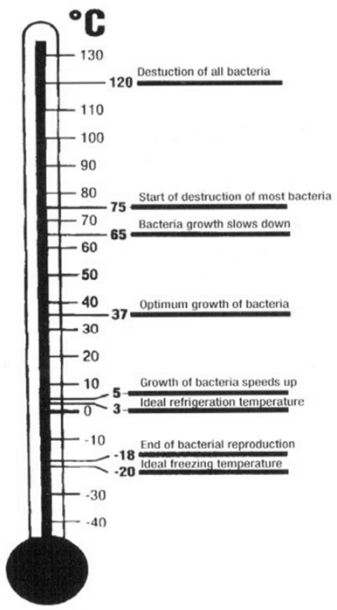
Minced machine

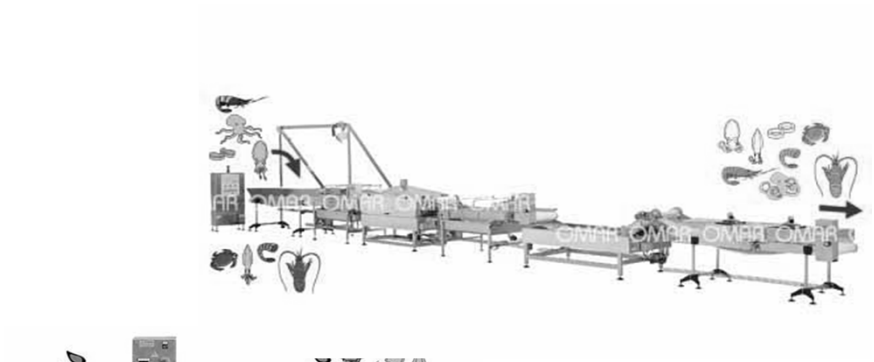


4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
33. Cooked Products (crustaceans and molluscs) 33.1 Cooled immediately and rapidly in potable water or clean seawater 33.2 Cooled to temperatures approaching that of melting ice or immediately frozen to at least -18 C after cooling	*GHP and GMP imply that:* *Cooked crustaceans and molluscs shall be hygienically handled, rapidly cooled in potable water down to temperatures approaching that of melting ice or immediately frozen* References: Reg. 853/2004, Annex III, section VIII, ch. IV-1,2,3.

Critical limits: Time and temperature (Monitoring)
Validation of process design
Internal verification (calibration of equipment, product testing)



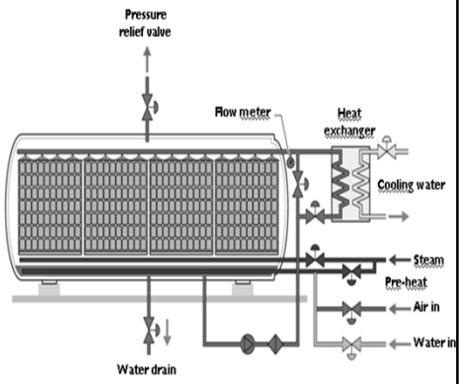


4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
34. Heat Sterilized Products 34.1 Conform to international recognized standard 34.2 Time-Temperature (Pressure) parameters specified 34.3 Monitoring by the use of automatic device 34.4 Prevent contamination of the product 34.5 Control of Sealing	*GMP and control of hazards for heat treated, long-term stable products imply that:* *Products shall be rendered free of microorganisms capable of growing in hermetically sealed containers when kept at ambient temperatures* References: Reg. 852/2004, Annex II, chapter VII, 6 and XI 1-3 Reg. 852/2004 Art. 5

Critical limits: Time, (pressure) and Temperature (Monitoring)
Validation of process design
Internal verification (calibration of equipment, product testing)

Steam retort sterilizer



TBT PROGRAMME

4. Process design and control

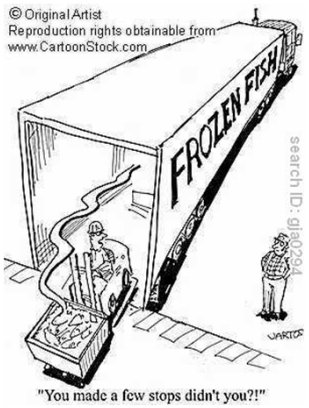
Diagnosis Grid 04	Objective & Reference in the legislation
35. Wrapping and Packaging (of fish raw materials) 35.1 and 35.2 Containers for fresh fish and ice 35.3 and 35.4 Block frozen raw materials	*GHP and GMP imply that suppliers of raw materials or semi-manufacture from vessels shall ensure hygienic handling and storage conditions and use only clean materials of food grade quality.* Reference: Ref: Reg. 853/2004, Annex III, section VIII, ch. VI-1, 2, 3 Ref. also to Item 17 above

Containers: Water resistant, allow drainage of melt water
Blocks of frozen raw materials: adequately packed in materials not a source of contamination

4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
36. Transport conditions for fishery products 36.1 Fresh and thawed unprocessed fishery products 36.2 Frozen fishery Products 36.3 Alive fish	*GHP and GMP imply that:* *Temperatures under transport shall be so to minimize risk for growth of pathogenic bacteria, and deterioration by microbiological growth or enzymatic degradation.* Reference: Reg. 853/2004, Annex III, section VIII, ch. VIII-1, 2, 3, 4

Criteria:
"approaching that of melting ice", "melt water drain away"
"at least -18 in all parts", "upward fluctuations max. 3 C",
"viability not affected"
Monitoring and corrective actions designed and implemented



4. Process design and control

Diagnosis Grid 04	Objective & Reference in the legislation
37. Training 37.1 All staff trained to properly carry out their responsibilities and activities 37.2 Training complies with national laws concerning training of staff in the food or fishery sectors.	*To ensure that staff shall be instructed and trained in food hygiene, appropriate to properly carry out their responsibilities and activities as food handlers.* References: Reg. 852/2004, Annex II, chapter XII 1-3 Ref. also to Item 55 below

5. Health Standards

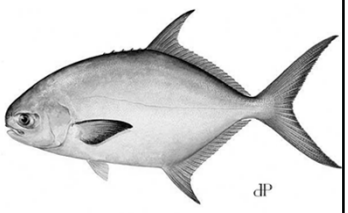
Diagnosis Grid 05	Objective & Reference in the legislation
38. Organoleptic examination 38.1 Carried out against specified freshness criteria	*Products placed on the market shall meet minimum freshness criteria in order to be deemed fit for human consumption.* References: Reg. 853/2004, Annex III, section VIII, ch. V-A

Criteria for "EU-species" in Reg. 2406/1996, Article 3 and Annex I.

5. Health Standards

Diagnosis Grid 05	Objective & Reference in the legislation
39. Freshness and histamine 39.1 Levels of histamine complies with requirements in all products of certain species 39.2 Sampling plan - 9 samples per lot (if sampling is applied)	*Monitoring and Internal verification of Prerequisite and HACCP programmes shall include sampling and testing for compliance with certain process and product standards* References: Reg. 2073/2005 and 852/2004 Art. 4, 3a and 3e Reg. 853/2004, Annex III, section VIII, ch. V-B Reg. 2073/2005, Annex I, chapter 1, 1.25

Specie families of: Scrombridae, Clupeidae, Engraulidae, Coryfenidae, Pomatomidae
Histamine Standard: max 200 ppm in any sample, max 100 ppm in 2 of 9 samples, average max 100 ppm



Familia: S*combridae, Scombresosidae,*

Clupeidae, Engraulidae,

Coryfenidae Pomatomidae

5. Health Standards

Diagnosis Grid 05	Objective & Reference in the legislation
40. Freshness and histamine, cont. 39.3 Products are tested for TVB-N or TMA-N if organoleptic assessment indicates problems with freshness 39.4 Fishery products with TVB-N > 30 are not placed on the market.	*Freshness tests shall be carried out to complement organoleptic assessment if this reveals any doubts about freshness*. References: Reg. 853/2004, Annex III, section VIII, ch. V-C Reg. 2074/2005 Annex 2, section II, chapter I and II

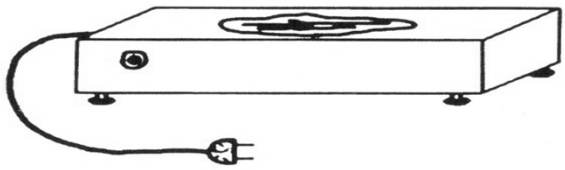
Analytical Method specified in Reg. 2074/2005 Annex 2, ch. 3
Requirements to species in 3. countries not mentioned in 2074/2005 Annex 2 ch. 1 and 2

5. Health Standards

Diagnosis Grid 05	Objective & Reference in the legislation
40. Parasites 40.1 Visually examined for visible parasites	*Fishery Products obviously contaminated with parasites shall not be placed on the market*. Ref: Reg. 853/2004, Annex III, section XIII, ch. V-D Reg. 2074/2005, Annex 2, section I, chapter I and II

Definitions in Reg. 2074/2005 Annex 2, ch. I
Analytical procedures specified in Reg. 2074/2005 Annex 2, ch. 2

Fillet inspection



A light table for use in parasite control

TBT PROGRAMME

Reg 1276/2011
In Annex III, Section VIII, Chapter III to Regulation (EC) No 853/2004, Part D is replaced by the following

D. REQUIREMENTS CONCERNING PARASITES
1. Food businesses placing on the market the following fishery products derived from finfish or cephalopod molluscs:

(a) Fishery products intended to be consumed raw; or
(b) Marinated, salted and any other treated fishery products, if the treatment is insufficient to kill the viable
parasite;

Freezing treatment to kill the parasite

2. For parasites other than trematodes the freezing treatment must consist of lowering the temperature in all parts of the product to at least:

(a) - 20 °C for not less than 24 hours; or

(b) - 35 °C for not less than 15 hours.

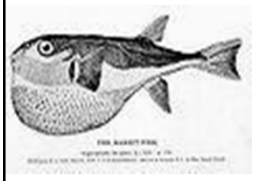
Some exemption for frozen , cooked, free parasitic areas and aquaculture fish

TBT PROGRAMME

5. Health Standards

Diagnosis Grid 05	Objective & Reference in the legislation
41. Toxic species 41.1 Tetraodontidae, Molidae, Diodontidae and Canthigastridae are not placed on the market 41.2 Family Gempylidae are placed on the market only in wrapped packed form 41.3 Family Gempylidae are appropriately labelled with scientific name and information about specific related risks.	*Fish species poisonous to humans shall not be placed on the market. Fish species with mildly adverse effects such as family Gempylidae are appropriately packaged and labelled* References: Reg. 853/2004, Annex III, section XIII, ch. V-E. Reg. 2074/2005 Annex VII, 2c

Gempylidae (= Oil fish and Escola = Ruvetus petriosis and Lepidocybium flavobrunneum)

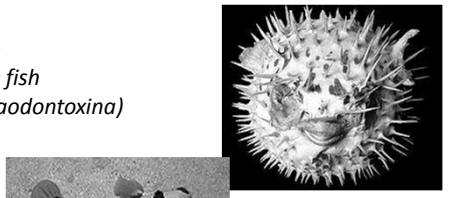


Some species with tetraodontoxina (Puffer fish)

Molidae

Diodontidae

Diodon sp
Porcupine fish
(with tetraodontoxina)



Familia *Canthigastredae*

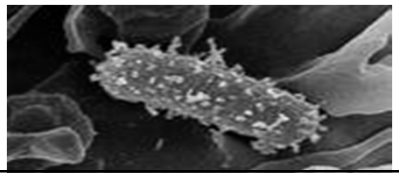
Pseudobalistes fuscus (trigger fish)

Balistapus undulatus

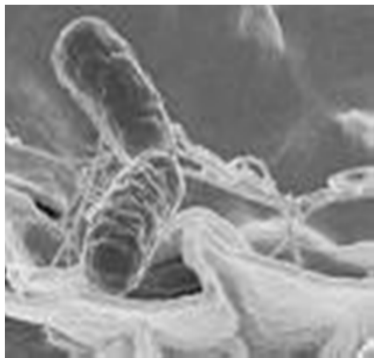
5. Health Standards

Diagnosis Grid 05	Objective & Reference in the legislation
42. **Micro biological criteria**	*Monitoring and internal verification of prerequisite and HACCP program shall include sampling and testing in compliance with certain process and product standards.* References: Reg. 2073/2005 and 852/2004 art 4 3a and 3e

E. Coli



Salmonella sp



Swab test

Luminometer

6. Assessment on HACCP Plan

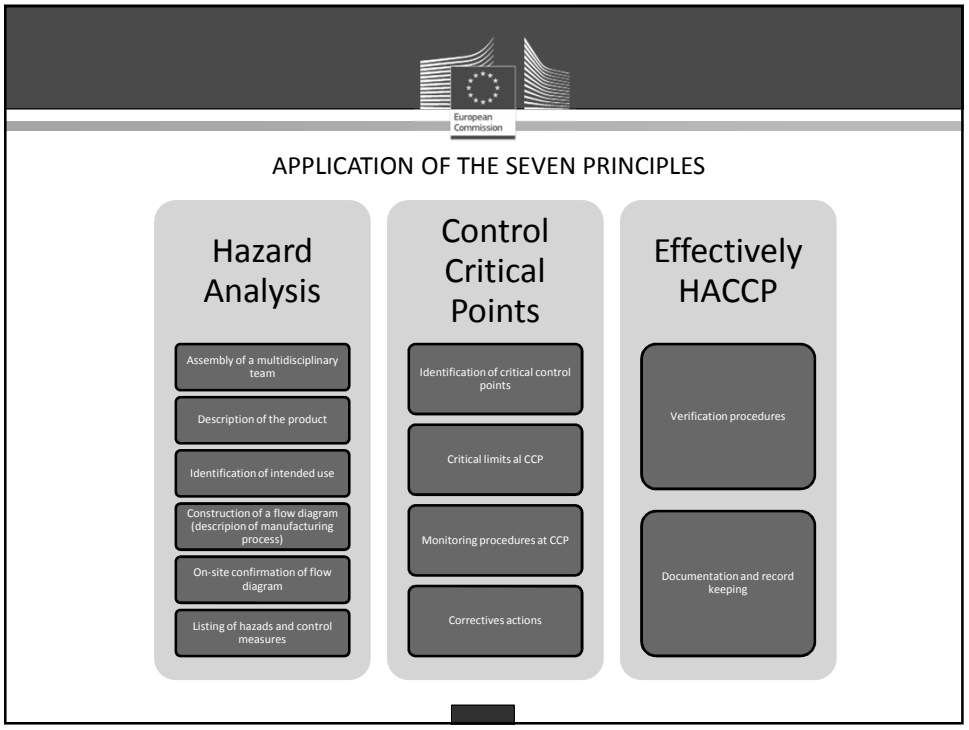
Diagnosis Grid 06	Objective & Reference in the legislation
43. Management Commitment and responsibility 5 Preliminary steps 7 Principles	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 1, 3, 4 HACCP Guid.Doc. Annex 1

Guidance document is Guidance, not a legal binding document
However - very similar to Codex International Code on food hygiene: CAC/RCP 1-1969 Rev. 4-2004
HACCP based procedures to be implemented with flexibility reflecting the type and size of the food business

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRELIMINARY STEP	Objective & Reference in the legislation
44. HACCP team **45. Product Description** **46. Identification of intended use**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 1, 3, 4 HACCP Guid.Doc. Annex 1, ch 1.1, 1.2, 1.3

HACCP Team:
- Multi-disciplinary, multi-divisional,
- Skills and knowledge about hazards and relevant process, product, and raw material characteristic.
- Adequate training in application of HACCP principles



6. Assessment on HACCP Plan

Diagnosis Grid 06 PRELIMINARY STEP	Objective & Reference in the legislation
47. Construct flow diagram 47.1 All steps incl. delays 47.2 Incl. raw materials 47.1 Backed up by technical data **48. Verify Flow diagram on-site during operation**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid.Doc. Annex 1, ch 1.4 and 1.5

Technical data: Eg. lay outs, flows of products, staff, equipment, waste , etc. and technical parameters of operation - in other words what is normally addressed in BMP programs (GMP and SSOP)
Procedures>< statements

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
49. Hazard Analysis **50. CCP determination** **51. Critical Limits determination**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid. Doc. Annex 1, ch 1.6, ch. 2 and ch. 3

Hazard Analysis: Systematic approach, each step, specific hazards, effective control measures
CCP determination: Appropriate and correctly identified
Critical limits: Real time observable or measurable for an operator

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
52. Monitoring **53. Corrective Actions**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid.Doc. Annex 1, ch. 4, 5,

- Documentation and Implementation
- Adequate procedures, trained operators, records of monitoring
- Verification of monitoring records >< CCP monitoring and system monitoring

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
54. Internal Verification **CCP verification** • To verify that monitoring is reliable and efficient to control food safety **System Verification** • To verify that system as a whole is adequate to control food safety efficiently	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid.Doc. Annex 1, ch. 6

Planned and Implemented
Where, What, when, who, how (why)

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
54. Internal Verification • Includes also Pre-requisite programs**.**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid.Doc. Annex 1, ch. 6

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
54. Internal Verification **54.14 Carried out as planned, including**: ■ Validation of critical limits ■ Calibrations of equipment ■ Product sampling and testing ■ Records review ■ Internal audits ■ Reviews when there are relevant changes ■ Internal audits conducted at appropriate frequencies **54.15 Corrective actions in case of deviation from requirements are efficient to control food safety**	*Procedures based on HACCP principles shall be documented, implemented and maintained to ensure safety of food placed on the market* Reg. 852/2004, Art. 5, pt. 2 HACCP Guid.Doc. Annex 1, ch. 6

6. Assessment on HACCP Plan

Diagnosis Grid 06 PRINCIPLE	Objective & Reference in the legislation
55. Training 55.1 HACCP team member trained specifically in the application of HACCP principle 55.2 Training needs identified for all staff working at CCPs 55.3 Training conducted and documented	*To ensure that staff shall be instructed and trained in food hygiene as relevant to their responsibility and activity with food.* References: Reg. 852/2004 Art. 5 Reg. 852/2004, Annex II, ch. XII 1-3 HACCP Guid.Doc. Annex I ch. 8

Records and on-site observations/interviews

FBO Practical application of risk management in fishery processing plant: pre-requisite risk assessment, analysis and management

N	Pre-requisite	Exposure	Sensitivity	Adaptation capacity
1	Infrastructure requirements			
2	Equipment requirements			
3	Raw materials			
4	Safe handling of food			
5	Food waste handling			
6	Pest control procedures			
7	Sanitation Procedures			
8	Water quality			
9	Maintenance of cold chain			
10	Staff Health			
11	Personal Hygiene			
12	Training			

FBO Practical application of risk management in fishery processing plant: HACCP risk

N	HACCP principles	Exposure	Sensitivity	Adaptation capacity
1	5 preliminary test			
2	7 principles			

END

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