

SEA FISH INDUSTRY AUTHORITY

Seafish Technology

IMPACT STUDY

E.C HEALTH AND HYGIENE REGULATIONS

DRAFT

Seafish Report No 365

M A Myers

P Wilson

January 1990

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Seafish Report No 360

January 1990

IMPACT STUDY

E.C Health and Hygiene Regulations

SUMMARY

Forthcoming E.C Regulations on public health standards will have a considerable impact on the U.K. fish industry especially in the onshore sectors, of coastal fish markets, processing, transportation and wholesalers. Special provisions will be introduced for molluscan shellfish.

The tone of the standards is set out in a series of drafts of which the latest is Regulation VI/3204/89 - EN Rev 1 but the details may eventually be published in the form of codes of practice or guidelines. However enough information exists to make some broad assumptions about the extend of upgrading which will be necessary.

Against this background the Commission issued a questionnaire asking each Member State to indicate the likely level of capital investment needed by each of the sectors affected. MAFF, DAFS, DANI and the Welsh Office requested Seafish to produce estimates from their own files and limited fieldwork.

The time scale allowed has not permitted an in depth study and the methodology has had to allow major assumptions to be made by aggregating enterprises by type, size classification and upgrading category.

The study is not directly linked to an existing or proposed grant aid programme but some cognizance has been taken of the scope of the proposed new Regulation 4042/89 which will in time replace Regulation 355/77 which has been the main source of aid to the sectors concerned.

The total estimate of upgrading the U.K industry at 1990 costs is £200 million for the fixed establishments and a further £20 million in the transport sector.

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E.C HEALTH AND HYGIENE REGULATIONS

1. BACKGROUND

In connection with forthcoming E.C Council Regulation VI/3204/89-EN Rev 1 on public health requirements for the production and marketing of fishery products and live bi-valve molluscs MAFF have been requested by the Commission via UKREP in Brussels to evaluate the impact of the proposed Council Regulations, in terms of capital investment to upgrade the UK industry to the proposed standards. MAFF in turn requested that Seafish help in the assessment of the investment required. This report summarises the estimated costs of upgrading under the classifications, sizes and current standards of the fabric of establishments as requested by the Commission for England, Scotland, Wales and Northern Ireland.

The estimates do not relate directly to categories of aid currently available from the Community or the U.K Government. Nevertheless much of the work would be within the scope of the new draft Regulation 4042/89 to replace Regulation 355/77 with the exception of transportation. The data for the U.K as a whole and does not differentiate between England, Scotland, Wales and Northern Ireland.

2. METHODOLOGY

Because of the time constraints placed upon Seafish it was necessary to base estimates upon existing and available data largely from Seafish internal reports and a limited consultation with industry. Seafish would like to acknowledge the assistance of; Aberdeen Fish Curers' and Merchants' Association Ltd, Scottish Fish Merchants Federation Ltd, The Federation of British Port Wholesale Fish Merchants Associations, Aberdeen Seafood Project, Charles Alexander and Partners (Transport) Ltd, the Shellfish Association of Great Britain, and MAFF Fish Diseases Laboratory, Weymouth.

2.1. Fish Products

2.1.1. Type of Establishment

Some simplification of the type of establishments was necessary as many UK processors are active in more than one of the suggested types of activity in the questionnaire and it was not possible in the timescale of the project to even identify their principal interest. The processing sector was therefore categorised as; primary (wet fish trade), secondary (value-added), canning or specialist salters, picklers or producers of marinades.

2.1.2. Numbers of Establishments

Numbers of merchants/processors was based upon a Seafish report 'Fish Processing in the UK, An Economic Analysis' 1987 by Richard Banks. Numbers of wholesalers and distribution depots are based upon a joint study by Seafish and Hull University, Technical Report No 345 'The Inland Wholesale Fish Markets' Vol 1. It should be noted that the numbers are based on individual businesses even where they form part of a larger inland market.

2.1.3. Size of Establishments

Other than for the quayside markets no comprehensive data was available on the physical size of establishments. Size classification was therefore based upon a correlation between numbers of employees and physical size of the establishment. Number of employees was taken from the Bank's report above. Establishments employing 1 to 10 persons were classified as having less than 250 m² floor area, those employing 11 to 25 persons having between 250 m² and 1,000 m², and those employing 26 or more persons as having more than 1,000 m².

2.1.4. Classification According to the Amount of Investment Required

Categories 1, 2 and 3 (as defined in the E.C questionnaire) for processors were based on ratings provided in Seafish Technical Report 328, 'A Technical Study of Fish Processing in the United Kingdom' by A Mills. For quayside auctions the Seafish work in connection with an investment programme under EC 4028/86 (2321/89) was used.

2.1.5. Costs of Upgrading Categories 2 and 3

Costs of upgrading categories 2 and 3 are based on percentages of a standard total rebuild cost using known recent estimates from the Humber and Grampian regions. A figure of 25% of total rebuild cost is used for category 2, and 75% for category 3. Total rebuild cost is assumed at £500/m². This figure is calculated for 1990 and includes an allowance for refrigeration plant. It does not include ground costs or other plant and equipment.

2.2. Bi-Valve Molluscs

2.2.1. Numbers of Establishments

Numbers of dispatch centres are based on the current number of molluscan shellfish growers registered with MAFF and DAFS (404). A dispatch centre or packing station is assumed for each grower but these are all small of under 250 m² and in reality several growers are likely to join together to provide a co-operative dispatch centre. This is a relatively small part of the total programme and a change in number has little affect on the total estimates.

The number of purification plants are taken as the 46 plants in existence in England, Wales and Northern Ireland plus an assumed requirement for a further five new plants, at 10 tonnes/day in Scotland making 51 in total.

2.2.2. Sizes of Establishments

All dispatch centres are assumed to be small establishments under 250 m². Sizes of purification plants are based on a knowledge of existing plants (and relate to plant capacity).

2.2.3. Classification According to the Amount of Investment Required

Classification according to the amount of investment required for both dispatch centres and purification plants is an extrapolation of knowledge of existing plants derived in consultation with the SAGB.

2.2.4. Costs of Upgrading Categories 2 and 3

Costs of upgrading existing premises to a dispatch centre in the context of the Regulations assumed for an average size of 50 m² with category 2 costed at £100/m² and category 3 at £400/m².

The cost of upgrading category 2 purification plants is based on area cost of £100/m². Small plants (under 250 m²) are assumed to have an area of 4x the actual (existing) tank size. Medium sized plants (250 - 1,000 m²) are assumed to have an area of 3x tank area. Of the 3 large plants (over 1,000 m²) one is assumed to have an area of 2x actual tank size and the other 2 are based not on cost per sq. metre but on known rebuild cost.

2.3. Transport

The calculation of the cost of upgrading transport is a gross simplification based on the differential in cost between a flatbed lorry and a covered, insulated vehicle. The differential cost is taken as £13,500 per vehicle and the total number of vehicles in use in the industry is estimated as 1,500.

Differential Cost = £13,500 x 1,500 = £20 m

Note that transport is not eligible for assistance under Reg 4042/89.

It is assumed that the frozen distribution chain will meet the requirements of the Regulations.

Table 1

FISH & FISH PRODUCTS

SMALL ESTABLISHMENTS (below 250sq.m.)

TYPE	Total	Category 1	Category 2	Category 3
Quayside Auction Markets	2	0	1	1
Primary Fish Processors (incl.shellfish)	6 1 6	71	154	391
Secondary Fish Processors (incl.smokers)	1 1 2	16	30	66
Salting,Pickling & Marinades	7	1	3	3
Canning	0	0	0	0
Inland wholesalers & Distribution Depots (incl.inland markets)	2 0 8	93	73	42

Table 2

FISH & FISH PRODUCTS

MEDIUM ESTABLISHMENTS (250sq.m. - 1,000sq.m.)

TYPE	Total	Category 1	Category 2	Category 3
Quayside Auction Markets	2 1	4	8	9
Primary Fish Processors (incl.shellfish)	6 8	1 5	1 7	3 6
Secondary Fish Processors (incl.smokers)	6 1	1 8	1 2	3 1
Salting,Pickling & Marinades	2	0	1	1
Canning	0	0	0	0
Inland wholesalers & Distribution Depots (incl.inland markets)	1 8 6	8 6	7 0	3 0

Table 3

FISH & FISH PRODUCTS

LARGE ESTABLISHMENTS (over1,000sq.m.)

TYPE	Total	Category 1	Category 2	Category 3
Quayside Auction Markets	16	4	5	7
Primary Fish Processors (incl.shellfish)	94	38	38	18
Secondary Fish Processors (incl.smokers)	105	47	25	33
Salting,Pickling & Marinades	1	0	1	0
Canning	2	2	0	0
Inland wholesalers & Distribution Depots (incl.inland markets)	70	35	27	8

Table 4**FISH & FISH PRODUCTS****COST OF UPGRADING CATEGORY 2 - 1990 PRICES**

		Number of UK Estabs.	Average Size (sq.m.)	Total Area (sq.m.)	Estimated Cost* £,000
Quayside Auction Markets	L	5	4968	24840	3105.0
	M	8	506	4051	506.4
	S	1	240	240	30.0
Primary Fish Processors (incl.shellfish)	L	38	1500	57000	7125.0
	M	17	400	6800	850.0
	S	154	150	23100	2887.5
Secondary Fish Processors (incl.smokers)	L	25	4000	100000	12500.0
	M	12	600	7200	900.0
	S	30	200	6000	750.0
Salting,Pickling & Marinades	L	1	1000	1000	125.0
	M	1	300	300	37.5
	S	3	200	600	75.0
Canning	L	0	0	0	0.0
	M	0	0	0	0.0
	S	0	0	0	0.0
Inland wholesalers & Distribution Depots (incl.inland markets)	L	27	1500	40500	5062.5
	M	70	500	35000	4375.0
	S	73	200	14600	1825.0

* Based on 25% rebuild cost of £500 per sq.m

FISH & FISH PRODUCTS

TOTALS	L	96	NA	182840	22855.0
	M	108	NA	53351	6668.9
	S	261	NA	44540	5567.5
GRAND TOTAL	ALL	465	NA	280731	35091.4

Table 5

FISH & FISH PRODUCTS

COST OF UPGRADING CATEGORY 3 - 1990 PRICES

		Number of UK Estabs.	Average Size (sq.m.)	Total Area (sq.m.)	Estimated Cost* £,000
TYPE	Size				
Quayside Auction Markets	L	7	5380	37657	14121.4
	M	9	461	4150	1556.3
	S	1	110	110	41.3
Primary Fish Processors (incl.shellfish)	L	18	1500	27000	10125.0
	M	36	400	14400	5400.0
	S	391	150	58650	21993.8
Secondary Fish Processors (incl.smokers)	L	33	4000	132000	49500.0
	M	31	600	18600	6975.0
	S	66	200	13200	4950.0
Salting,Pickling & Marinades	L	0	0	0	0.0
	M	1	300	300	112.5
	S	3	200	600	225.0
Canning	L	0	0	0	0.0
	M	0	0	0	0.0
	S	0	0	0	0.0
Inland wholesalers & Distribution Depots (incl.inland markets)	L	8	1500	12000	4500.0
	M	30	500	15000	5625.0
	S	42	200	8400	3150.0

* Based on 75% of rebuild cost of £500per sq.m

FISH & FISH PRODUCTS

TOTALS	L	66	NA	208657	78246.4
	M	107	NA	52450	19668.8
	S	503	NA	80960	30360.0
GRAND TOTAL	ALL	676	NA	342067	128275.1

Table 6

BI-VALVE MOLLUSCS

(A) ESTABLISHMENTS HAVING AN AREA NOT EXCEEDING 250 m² (1)

TYPE OF ESTABLISHMENT	TOTAL NUMBER (2)	NUMBER IN CATEGORY 1	NUMBER IN CATEGORY 2	NUMBER IN CATEGORY 3
DISPATCH CENTRE	404	101	101	202
PURIFICATION PLANT	44	6	22	16

(B) ESTABLISHMENTS HAVING AN AREA BETWEEN 250 m² AND 1000 m² (1)

TYPE OF ESTABLISHMENT	TOTAL NUMBER (2)	NUMBER IN CATEGORY 1	NUMBER IN CATEGORY 2	NUMBER IN CATEGORY 3
DISPATCH CENTRE	-	-	-	-
PURIFICATION PLANT	4	1	2	1

(C) ESTABLISHMENTS HAVING AN AREA EXCEEDING 1000 m² (1)

TYPE OF ESTABLISHMENT	TOTAL NUMBER (2)	NUMBER IN CATEGORY 1	NUMBER IN CATEGORY 2	NUMBER IN CATEGORY 3
DISPATCH CENTRE	-	-	-	-
PURIFICATION PLANT	3	0	1	2

- (1) Including outside washing areas and tanks; but not including administrative office
 (2) Including establishments already up to standard

Table 7

BI-VALVE MOLLUSCS

APPROXIMATE ESTIMATE OF INVESTMENT
REQUIRED TO BRING ESTABLISHMETNS
IN CATEGORIES 2 AND 3 UP TO THE REQUISITE STANDARD

TYPE OF ESTABLISHMENT	SIZE	CATEGORY 2	CATEGORY 3
DISPATCH CENTRE	A	500,000	4,000,000
	B	-	-
	C	-	-
PURIFICATION PLANT	A	160,000	670,000
	B	90,000	120,000
	C	100,000	1,000,000
TOTAL	A	850,000	5,790,000

Total capital investment category 2 x 3 for molluscs 6.64 million

4. DISCUSSION

The total capital cost of the upgrading of the UK fish processing and distribution industry to meet the forthcoming hygiene regulations for categories 2 and 3 of fishery products and molluscs (excluding transportation) is in the order of £170 million, based on the analysis described. Upgrading transportation would add a further 20 million to costs.

Apart from the problems in undertaking the study in a short time scale however and the requirement to base estimates on available data, which in some cases is dated or limited, a major difficulty exists with the interpretation of the Hygiene Regulations. Seafish has interpreted Community document reference VI/3204/89 - EN Rev 1.

Until such time as there is more guidance as to interpretation it is not possible to provide an accurate assessment as to investment required. The above figure can only be regarded as a very rough approximation.

If it is accepted that the numbers of merchants and processors is likely understated in the Banks report then a figure on the order of £200 million may be more appropriate to which must be added the £20 million for transportation.

The report identifies those sectors of the fishing industry where the greatest amount of capital and Community support will be needed if the enterprises concerned are to upgrade to comply with the Regulations.

However in many small enterprises the costs of upgrading are unlikely to be justified on the present levels of turnover, and there is not the potential for these businesses to expand in view of the acute shortage of supplies especially in the fresh fish low value sector on which many of them depend. In these circumstances Seafish would recommend that there is a need to consider a policy which recognises over capacity and directs aid into those enterprises which have a clear business strategy able to absorb the extra investment.

Major problems of uncertainty exist in connection with the bi-valve mollusc Regulation as some harvesting areas may not meet the bacteriological standards. In some areas more processing may be required but until the areas are classified it is not possible to gauge its effects. It may be that re-laying is not a commercially viable proposition for some areas and could result in the closure of the shellfish beds.

APPENDIX I

QUESTIONNAIRE Nr. 1

OBJECT: To evaluate the impact of the proposed Council Regulation on public health requirements for the production and marketing of fishery products

PURPOSE: To identify the sectors of the fishing industry where Community support will be the most necessary to enable undertakings to comply with the specifications of the regulation

NOTE: The establishments must be classified into categories according to the amount of investment required to ensure that the premises and equipment meet the criteria required for obtaining approval.

Category I: Establishments requiring only minor investments

Examples:

- fitting of non-manually operated taps on washbasins; provision of disposable towel dispensers;
- provision of facilities for disinfecting small items of equipment;
- installation of recording thermometers in refrigerated premises ...

Category II: Establishments requiring investments on a moderate scale

Examples:

- provision of potable water supplies or installation of a sea water purification plant;
- installation of additional refrigerating capacity or construction of more refrigerated premises;
- renewal of wall or floor coverings ...

Category III: Establishments requiring major investments, structural modifications to the premises

Examples:

- enlargement of a unit whose capacity is distinctly inadequate for the volume of goods handled;
- rebuilding of floors, walls, ceilings ...

The first three sheets of the questionnaire are intended to provide an inventory of the establishments by category and size.

The fourth sheet is to provide a summary of the investments required, as evaluated approximately, to bring the establishments in categories II and III into line with the requirements.

APPENDIX II

QUESTIONNAIRE Nr. 2

OBJECT: To evaluate the impact of the draft Council Regulation on public health requirements for the production and marketing of live bivalve molluscs

PURPOSE: To identify the sectors of shellfish farming in which Community support will be the most needed in order to enable undertakings to comply with the specifications of the regulation

NOTE: The establishments must be classified into categories according to the amount of investment required to ensure that the premises and equipment meet the criteria required for obtaining approval.

Category I: Establishments requiring only minor investments

Examples:

- provision of sanitary facilities;
- replacement of wooden tables with tables in standard materials;
- provision of waste containers ...

Category II: Establishments requiring investments on a moderate scale

Examples:

- provision of potable water supplies or evacuation of waste water;
- renewal of floor or wall coverings;
- provision of cloakrooms and new sanitary facilities ...

Category III: Establishments requiring major investments, including structural modifications to the premises

Examples:

- rebuilding of premises;
- conversion of a dispatch centre into a purification unit.

The first sheet of the questionnaire is intended to provide an inventory of the establishments by category and size.

The second sheet is to provide a summary of the investments required, as evaluated approximately, to bring the establishments in categories II and III into line with the requirements.