GUIDANCE ON SAMPLING OF WHOLE FISHES OF DIFFERENT SIZE AND/OR WEIGHT (referred to in the 3rd indent of point 4.4. of Regulation (EC) No 1883/2006, point B.2.4. of Regulation (EC) No $333 / 2007$ and point A.2.4 of the draft Regulation laying down methods of sampling and analysis for the control of perfluoroalkyl substances in certain foodstuffs - the Regulation number will be added, when published).

For batches of fishes of different size and/or weight, in case no particular size or weight class/category predominates, the following sample procedure is proposed:

1) In case the size and/or weight of the fishes present in the lot differs more than $50 \%$ but less than $100 \%$ : two separate representative samples are taken from each size or weight class/category within a lot.
2) In case the size and/or weight of the fishes present in the lot differs more than $100 \%$ : three separate representative samples are taken from each size or weight class/category within a lot.

The laboratory may perform a sequential analysis on the samples of the different size/weight classes/categories of one lot, whereby the sample representing the largest fishes is analysed first.
-In case the analytical result of this sample is compliant with the maximum level, the whole lot is considered to be compliant.
-In case the analytical result of this sample is exceeding the EU maximum level, then the sample taken from the medium size fishes is analysed.
-In case this analytical result is compliant then no analysis is necessary of the sample taken from the smallest size fishes (in case the lot is divided into three size classes).
-In case the analytical result of the sample of the medium size fishes is non-compliant with the EU maximum level, in case of three separate samples, then the sample from the smallest size fishes is analysed.

Based on the analytical results of one or more samples, the whole or parts of the lot can be accepted or rejected.

## EXAMPLES

1) In case the size and/or weight of the fishes present in the lot differs more than $\mathbf{5 0}$ \% but less than $100 \%$ : two separate representative samples are taken from each size or weight class/category within a lot.

Example: 5 ton lot of fishes with weights from 2 kg to 3.5 kg .
A first aggregate sample is taken of the smaller sized (lot relative) fishes, which weigh about 2-2.75 kg: 10 incremental samples (fishes) are taken. Each incremental sample
is constituted from the muscle meat of the middle part of the fish (slice backbone to belly, symmetrically taken around line B in Figure 1) and weighs about 100 grams. This results in one aggregate sample of about 1 kg to be homogenised and analysed separately.

A second aggregate sample is taken of the larger sized (lot relative) fishes, which weigh about $2.75-3.5 \mathrm{~kg}: 10$ incremental samples (fishes) are taken. Each incremental sample is constituted from the muscle meat of the middle part of the fish (slice backbone to belly, symmetrically taken around line B in Figure 1) and weighs about 100 grams. This results in one aggregate sample of about 1 kg to be homogenised and analysed separately


Figure 1: The different sections of a fish.
A) Laboratory performs a sequential analysis:

First the sample of the larger sized fishes is homogenised and analysed separately. -In case the analytical result is compliant, the whole lot is compliant.
-In case the analytical result is non-compliant, as a second step the sample of the smaller sized fishes is homogenised and analysed separately.
-- In case the analytical result of the sample of the smaller sized fishes is noncompliant, the whole lot is non-compliant.
-- In case the analytical result of the sample of smaller sized fishes is compliant, then the smaller sized fishes (2-2.75 kg) have to be sorted out and these fishes are compliant. The remaining larger sized fishes (2.75-3.5 kg) are non-compliant.
B) Laboratory analyses both samples at the same time:
-In case both analytical results are compliant, the whole lot is compliant.
-In case both analytical results are non-compliant, the whole lot is non-compliant. -In case the sample of the smaller sized fishes (2-2.75 kg) is compliant and the sample of the larger sized fishes (2.75-3.5 kg) not, then the smaller sized fishes (2-2.75 kg) have to be sorted out and these small sized fishes are compliant. The remaining larger sized fishes (2.75-3.5 kg) are non-compliant.
2) In case the size and/or weight of the fishes present in the lot differs more than $100 \%$ : three separate representative samples are taken from each size or weight class/category within a lot

Example: 10 ton lot of fishes with weights from 2 kg to 8 kg .
A first aggregate sample is taken of the smaller sized (lot relative) fishes, which weigh about 2-4 kg: 10 incremental samples (fishes) are taken, each incremental sample is constituted from the muscle meat of the middle part of the fish (slice backbone to belly, symmetrically taken around line B in Figure 1) and weighs about 100 grams. This results in one aggregate sample of about 1 kg , to be homogenised and analysed separately.

A second aggregate sample is taken of the fishes of medium size (lot relative) of about $4-6 \mathrm{~kg}$ : 10 incremental samples ( $f$ ishes) are taken, each incremental sample is constituted from the muscle meat of the middle part of the fish (slice backbone to belly) and weighs about 100 grams. This results in one aggregate sample of about 1 kg , to be homogenised and analysed separately.

A third aggregate sample is taken of the larger sized (lot relative) fishes of about 6-8 kg : 3 incremental samples (fishes) are taken, each incremental sample is -constituted of the right side dorso-lateral muscle meat in the middle part of the fish (symmetrically around line B in Figure 1 and above the horizontal line in Figure 1) and weighs about 350 grams. This results in one aggregate sample of about 1 kg to be homogenised and analysed separately. OR
-constituted of equal parts of 175 grams of the muscled meat close to the tail part (the region around line C in Figure 1) and the muscle meat close to the head part of one fish (the region of line A in Figure 1) which are combined to form an incremental sample of about 350 grams per fish. This results in one aggregate sample of about 1 kg to be homogenised and analysed separately.

## A) The laboratory performs a sequential analysis:

First the sample of the larger sized fishes $(6-8 \mathrm{~kg})$ is homogenised and analysed separately.
-In case the analytical result is compliant, the whole lot is compliant
-In case the analytical result is non-compliant, as a second step the sample of the medium sized fishes $(4-6 \mathrm{~kg})$ is homogenised and analysed separately.
-- In case the analytical result of the sample of medium sized fishes (4-6 kg) is compliant, then the larger sized fishes $(6-8 \mathrm{~kg})$ have to be sorted out and these fishes $(6-8 \mathrm{~kg})$ are non-compliant. The remaining smaller ( $2-4 \mathrm{~kg}$ ) and medium sized ( $4-6 \mathrm{~kg}$ ) fishes are compliant.
-- In case the analytical result of the sample of medium sized fishes (4-6 kg) is non-compliant, as a third step the sample of the smaller sized fishes ( $2-4 \mathrm{~kg}$ ) is homogenised and analysed.
-- -- In case the analytical result of the sample of smaller sized fishes $(2-4 \mathrm{~kg})$ is non-compliant, then the whole lot of fish is non-compliant
-- -- In case the analytical result of the sample of smaller sized fishes $(2-4 \mathrm{~kg})$ is compliant, then the smaller fishes $(2-4 \mathrm{~kg})$ have to be sorted out and these fishes ( $2-4 \mathrm{~kg}$ ) are compliant. The remaining medium (46 kg ) and larger sized fishes ( $6-8 \mathrm{~kg}$ ) are not compliant.

## B) The laboratory analyses all three samples at the same time

- In case all three analytical results are compliant, the whole lot is compliant.
- In case all three analytical results are non-compliant, the whole lot is noncompliant.
- In case the sample of the smaller fishes ( $2-4 \mathrm{~kg}$ ) is compliant and the sample of the medium sized $(4-6 \mathrm{~kg})$ and larger fishes $(6-8 \mathrm{~kg})$ not, then the smaller fishes $(2-4 \mathrm{~kg})$ have to be sorted out and these fishes are compliant. The remaining medium sized ( $4-6 \mathrm{~kg}$ ) and larger sized fishes $(6-8 \mathrm{~kg})$ are non-compliant.
- In case the sample of the smaller ( $2-4 \mathrm{~kg}$ ) and medium sized fishes (4-6 kg) is compliant and the sample of the larger sized fishes $(6-8 \mathrm{~kg})$ not, then the larger sized fishes $(6-8 \mathrm{~kg})$ have to be sorted out and these fishes ( $6-8 \mathrm{~kg}$ ) are non-compliant. The remaining smaller ( $2-4 \mathrm{~kg}$ ) and medium sized fishes ( $4-6 \mathrm{~kg}$ ) are compliant.

