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CODEX/MIN/III  
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JOINT FAO/WHO FOOD STANDARDS PROGRAM

SIXTH SESSION OF THE COORDINATING COMMITTEE FOR EUROPE  
Vienna, 4-8 November 1968

CODEX COMMITTEE ON NATURAL MINERAL WATERS

REPORT OF THE THIRD SESSION,  
Bad Ragaz, Switzerland, 7-9 May 1968

1. The Codex Committee on Natural Mineral Waters held its third session from 7 to 9 May 1968 at Bad Ragaz, under the chairmanship of Professor O. Högl (Switzerland). Eight European countries were represented at the meeting which was also attended by an observer from an international organization. The list of participants is given in Annex I. After opening the session and welcoming the delegates, Professor Högl proposed the adoption of the draft agenda. It was adopted without changes.
2. The Committee was informed that the draft provisional standard for Natural Mineral Waters had been sent to all the European and non-European member governments of the Codex Alimentarius Commission for comments at Step 3 of the Procedure for the Elaboration of Regional Standards. A summary of these comments was made available to the Committee as a working document. The Committee examined this document together with some points of the draft standard about which some special problems have arisen.

Definitions and Designations

3. The meeting opened with a discussion of the meaning to be attributed to the terms "favourable to health" and "favourable physiological properties" (Article I.1(a) and (b)). The Committee confirmed the wording of this text, and underlines that these terms do not mean that natural mineral waters necessarily have medicinal or curative properties. The delegation of the Federal Republic of Germany asked to add in parenthesis, for the sake of greater clarity in the German text, ("ernährungs-physiologisch günstig") to better specify that it is a food product.
4. At its last meeting at Montreux, the Committee expressed the wish to find a term that would define more exactly the meaning of "decantation"

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(Article I.2). Several governments have commented on the need for greater precision. After discussion, the Committee members agreed on the following definition:

"Decantation is a physical process of separating undesirable elements from mineral water, permitted by national legislation, on condition that the mineralization of the water is not modified in its essential constituents which give it its properties."

It is understood that this process also includes the desulphurization and filtration of natural mineral waters. The delegate of France entered a reservation as desulphurization and bacteriological filtration are prohibited in France. 1/

#### Production (Exploitation) and Hygiene Requirements

5. Explanations were given on two points of the present text of the standard on which the governments had been asked to comment. In paragraph 4 of the Article II referring to the stability of the water, the new text is to read as follows:

"The composition, temperature and, generally, the essential characteristics of the water must remain stable within the limits of natural fluctuations. Possible variations in flow must not be able to change the composition, the temperature or the essential characteristics."

In paragraph 6, point 5, of the same article concerning periodic checks on hygienic conditions, the Committee wishes to maintain the text of the standard as it stands and to leave the details of inspection regulations to the competent national authorities.

#### Labelling

6. Italy, The Federal Republic of Germany and Austria entered the following observations on this point of the standard:

The delegate of Italy agrees with the reservation entered at the last meeting by the delegate of France that the date of the authorization to commence production (exploitation) constitutes a compulsory and not an optional indication on the containers (Article III, para. 2, section 3 sub-para. 1).

The delegate of the Federal Republic of Germany agreed with the possibility of mentioning properties favourable to health (Article III, para. 2, point 3 sub-para 3) provided the German text of the standard carries the same words of explanation "ernährungsphysiologisch günstig" as appear on the containers.

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1/ Note by the Secretariat: The other reservations to this article formulated at the second session at Montreux by France and Czechoslovakia are maintained.

Finally, the delegate of Austria declared his agreement with the present text of paragraph 3 of the same article which states that a topographical reference may not form part of a brand unless it refers to a natural mineral water (produced) exploited at the place designated by the brand. However, in the case of Austria where the national legislation is not in conformity with this provision, the Committee agreed that an exception be permitted for natural mineral waters from sources which do not fulfill the above-mentioned conditions. This exception would not apply to newly exploited sources.

The use of natural mineral water in the manufacture of refreshing non-alcoholic drinks (soft drinks)

7. As regards including in the standard the provisions for the use of the above-mentioned drinks, the Committee considered that this section should be retained. Without providing for it in the standard, the Committee also took note that natural mineral water should have the same importance as the other constituents of this type of drink such as fruit juices, extracts, sugar, etc. and that this should also be mentioned on the label. The Committee considered that it would be better not to use the English term "soft drinks" in this section of the standard. 2/

Methods of Analysis and Sampling

8. As this subject had not yet been dealt with in the present draft, the Committee discussed it briefly.

It was decided that:

- (a) Modern methods of analysis must be used for testing.
- (b) It is not possible to define these methods precisely as they change with the advance of scientific research. The international standards for drinking water (WHO) must be applied where it seems indicated.
- (c) In the detailed report of the analysis, the methods used must be specified.
- (d) The presentation of the results of the analysis must be made according to the ISM (International Standard Measurements); the results must be given in mg/kg, in milliequivalents and in milliequivalent/per hundred.
- (e) The label may show the results of the analysis of the water either as it emerges at the source with the mentioning of any treatment, or of the contents of the bottle.

A model of analysis, as mentioned in point 8 (d) is annexed to this report as Annex II. Moreover, the Committee decided to submit the provision of this

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2/ Note by the Secretariat: The French delegation maintains its reservation on the use of mineral waters in the preparation of soft drinks.

paragraph to the Codex Committee on Methods of Analysis and Sampling.

Adaptation of the Standard to the Format of Codex Standards

9. The Chairman of the Committee informed the members that it would be necessary to arrange the text of the standard to conform to the Format of Codex Standards. This should not involve any substantive changes in the text. It is recalled that the Committee agreed upon the text at its second meeting. Those points which raised particular problems were clarified at the present meeting. The Chairman declared, however, that some changes would have to be made as a result of the rearrangement of the text of the standard.

10. The Committee decided that the Secretariat of the Committee jointly with the Secretariat of the Commission in Rome, should prepare a new revised version of the standard incorporating, as far as possible, the provisions of the Format for Codex Standards. This new version of the standard will be sent to all the members of the Coordinating Committee for Europe and to all the participants of the sessions held at Montreux (1967) and Bad Ragaz (1968). The discussion of the standard will be on the Agenda of the meeting of the Coordinating Committee for Europe so that it could be submitted to the Codex Alimentarius Commission in February 1968 at Step 5 of the Procedure.

CODEX COMMITTEE ON NATURAL MINERAL WATERS

Third meeting, Bad Ragaz, 7-9 May 1968

LIST OF PARTICIPANTS

President: Prof. Dr. O. Högl, Comité national suisse du Codex Alimentarius, Taubenstrasse 18, Berne

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Delegates:

Germany (F.R.): Ministerialdirigent Dr. h.c. E. Forschbach, Bundesministerium für Gesundheitswesen, 532 Bad Godesberg.

Generalkirektor M.J. Beudt, Deutscher Bäderverband, Scumannstrasse, 53 Bonn

M.E. Gerstenberg, Verband Deutscher Mineralbrunnen, Kennedyallee 28, Bad Godesberg

Rechtsanwalt Dr. O. Wuttke, Verband Deutscher Mineralbrunnen, Kennedyallee 28, 532 Bad Godesberg

Austria: Dr. R. Wildner, Coordonnateur pour l'Europe, Bundesministerium für soziale Verwaltung, Stubenring 1 Wien

Dr. G. Bancalari, Bundeskammer der gewerblichen Wirtschaft, Fachverband der Heilbadeanstalten Preblau, Kärnten

Dr. A. Modl, Bundeskammer der gewerblichen Wirtschaft, Fachverband der Heilbadeanstalten, Hoher Markt 3, Wien 1

Belgium: M. J. Burton, Inspecteur au Service des denrées alimentaires, Ministère de la Santé Publique, Cité administrative, 20 Montagne de l'Oratoire, Bruxelles

Spain: Prof. R. Casares, délégué de la Commission du Codex Alimentarius espagnol, Escuela de Bromatología, Madrid

France: M. A. Lafont, Sous-Direction de l'Hygiène Publique, Ministère des Affaires Sociales, 8 rue de la Tour des Dames, Paris 9e

M. A. Brailon, Inspecteur Principal au Service de la Répression des Fraudes, Ministère de l'Agriculture, 42 bis, rue de Bourgogne, Paris 7e

Italy:

Dr. P. Caruso, Chef, Division Eaux minérales, Ministère de la santé, Rome, EUR

Dr. C. Callipo, Secrétaire générale de la Fédération Italienne des Industries Hydrothermales, Viale Liéqi 52, Rome

Dr. A. Valenté, délégué de la Fédération Italienne des Industries Hydrothermales, Terme Montecatini, Via Cavour 1, Montecatini Terme

Switzerland:

Dr. F. Achermann, a. chimiste cantonal, Faubourg du Lac 35, 2000 Neuchâtel

M. E. Buchenhorner Mineralquelle Eptinger A6, 4450 Sissach

Dr. E. Romann, Kantonschemiker Fehrenstrasse 15, 8032 Zürich

M. E. Reinle, Verwaltungsratpräsident der Mineralquelle Eglisau AG., 8193 Eglisau

M. E. Rouge, Directeur Henniez-Lithinée SA., 1599 Henniez

M. P. Walser, Directeur Passugger Heilquellen AG, 7062 Passugg

Dr. M. E. Zinsli Bäderverband/SGBB Hartbertstrasse 17, 7000 Chur

M. H. Zogg, Mineralquellen Elm, 8750 Glarus

Dr. E. Wieser, Kantonschemiker, St. Gallen

Czechoslovakia:

Ing. J. Novotny, Leiter des Inspektorats für Bäder und Heilquellen, Gesundheitsministerium Tr. W. Piecka 98 Praha 10

International Organizations

Groupement Européen des Sources  
Minérales Naturelles, Paris

Secrétariat général: Dr. O. Wuttke,  
Kennedyallee 28, Bad Godesberg

Secretariat

M. J. Nemeth, Joint FAO/WHO Food Standards Program, Viale delle Terme di Caracalla, Rome.

Mlle. H. Griessen, Comité national suisse du Codex Alimentarius, Taubenstrasse 18, Berne.

Model for the presentation of the results of the analysis  
of a sample of natural mineral water

Brief Analysis of Source Wy near Scuol, Basse Engadine, Switzerland  
carried out by the chemist of the Canton des Grisons at Coire (Date)

Temperature of the air	16,5°
Temperature of the water of the source	8,1°
Atmospheric pressure (mm Hg)	655,8
Flow	lt/Min 23,3

Content in minerals and gases

<u>Cations</u>		mg/kg	Milliequivalents	Milliequivalents %
Sodium	Na <sup>+</sup>	3,4	0,15	0,6
Potassium	K <sup>+</sup>	1,6	0,04	0,2
Calcium	Ca <sup>+2</sup>	438,5	21,93	89,0
Magnesium	Mg <sup>+2</sup>	26,3	2,16	8,8
Iron	Fe <sup>+2</sup>	9,6	0,34	1,4
Total:		479,4	24,62	100,00

Anions

Chlorine	Cl <sup>-</sup>	0,5	0,01	-
Iodine	I <sup>-</sup>	(0,016)	-	-
Sulphate	SO <sup>-2</sup>	12,6	0,26	1,0
Bicarbonate	HCO <sub>3</sub> <sup>-4</sup>	1481,0	24,28	99,0
Total:		1494,1	24,55	100,0

Sum of both totals: 1973,5 49,17

Dissolved gases:

Carbon Dioxide, Co<sub>2</sub>, calculated 2135 mg = 1088 ml  
" " " directly determined 1155 ml

Dry residuum calculated after deduction of Fe(OH) <sub>3</sub>	1212 mg/l
Dry residuum, directly determined at 180° after precipitation of Fe(OH) <sub>3</sub>	1215 mg/l

Other determinations and calculations

Alkalinity (directly determined after precipitation of Fe(OH) <sub>3</sub> )	23,2 ml n-1 NaOH/kg
Alkalinity (calculated)	23,98 ml n-1 NaOH/kg
Density	1,00205
Aspect	Limpid, after a short lapse of time becomes cloudy, brownish-yellow
Classification	Bicarbonated water, containing calcium, magnesium and iron

IMPORTANT NOTICE FROM THE SECRETARIAT OF THE COMMISSION

The following notice and the annexed version of the proposed draft provisional standard rearranged in Codex format are not part of the official report which has been adopted by the Committee on Natural Mineral Waters at its third session

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1. The Secretariat of the Commission, in agreement with the Chairman of the Committee and according to the provisions of paragraph 10 of the report of the third session, decided it would be useful to complete this report with the addition of the standard rearranged in Codex format on natural mineral waters. At the second session of the Committee at Montreux, this standard, in its original version, gained a wide measure of approval from the countries most closely concerned. The rearranged version adheres as closely as possible to the original text except for a few modifications which have become necessary as the result of the adoption by the Codex Alimentarius Commission of a format for all Codex standards.
2. The report of the second session of the Committee including the original text of the standard as well as the General Standard for the Labelling of Pre-packaged Foods, are also sent to the members of the Committee for study and comparison.
3. It would be desirable that the Coordinating Committee for Europe scheduled to meet from 4 to 8 November 1968 should, among other items, undertake the formal examination of the proposed draft provisional standard at Step 4 of the Procedure for the Elaboration of Regional Standards, so that it could then be submitted at Step 5 of the procedure to the Codex Alimentarius Commission.

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Proposed Draft Provisional

STANDARD

for

NATURAL MINERAL WATERS

(Rearranged in Codex Format, 1968)

I. Definition

1. Natural mineral water is water from a natural or drilled source which
  - a) has properties favourable to health because of its particular qualities or
  - b) contains in one kg., at its origin and after bottling, at least 1000 mg. of dissolved salts or at least 250 mg. of free carbon dioxide, and which has favourable physiological properties.

The recognition of a water as a natural mineral water is a matter for the competent authority in the country of origin.

II. Supplementary Descriptions

1. A naturally effervescent mineral water is a water which after possible decantation\* and replacement of gas, and after bottling has the same content of gas from the source as at emergence of the water taking into account the usual technical tolerance.
2. A non-effervescent natural mineral water or a natural mineral water fortified with gas from the source is a water which after possible decantation\* and bottling does not have the same carbon dioxide content as at emergence.
3. A carbonated natural mineral water is a water to which carbon dioxide of another origin has been added.
4. The treatments provided in paragraphs 1, 2 and 3 above may only be carried out on condition that the mineralization of the water is not modified in its essential constituents which give it its properties.

III. Hygiene requirements and Production (Exploitation)

1. Natural mineral water must issue from an underground water source.
2. The composition, temperature and, generally, the essential characteristics of the water must remain stable within the limits of natural fluctuations. Possible variations in flow must not be able to change the composition, the temperature or the essential characteristics.

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\* Decantation is a physical process of separating undesirable elements from mineral water, permitted by national legislation, on condition that the mineralization of the water is not modified in its essential constituents which give it its properties.

3. The following provisions on food hygiene must be endorsed by the Codex Committee on Food Hygiene:
  - a) The source or the point of emergence must be protected against risks of pollution.
  - b) The installations intended for the production (exploitation) of natural mineral waters must be such as to exclude any possibility of contamination and to preserve the properties of the water in conformity with its definition. For this purpose and in particular:
  - c) The catchment, the pipes and the reservoirs must be made from material suited to the water and in such a way as to prevent the incursion of foreign substances into this water.
  - d) The equipment and the use thereof for production (exploitation), especially installations for washing and bottling, must meet hygienic requirements.
  - e) The transport of natural mineral waters in mobile tankers for bottling or any other processing is prohibited.
  - f) If during production (exploitation) it is found that the water is polluted, the producer must stop all operations until the cause of pollution is eliminated.
  - g) The observance of the above provisions will be subject to periodic checks.

#### IV. Labelling (guarantees of genuineness)

1. Natural mineral waters move in trade in containers equipped with suitable devices for closing them to avoid any possibility of falsification and contamination.
2. The provisions of articles 2.1, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9 and 2.11 of the "General Standard for Labelling of Prepackaged Foods are applicable.
3. The labelling provisions specifically concerning this product must be endorsed by the Codex Committee on Food Labelling.
4. Containers shall bear the following statements:
  - a) The designation "natural mineral water" if the water is conform to the definition of Article I.1.
  - b) The designation "naturally effervescent mineral water" if the content of carbon dioxide from the source is the same as on emergence, according to Article II.1.

- c) The designation "non-effervescent natural mineral water" or "natural mineral water fortified with gas from the source" if the content in carbon dioxide is not the same as on emergence, according to Article II.2.
  - d) The designation "carbonated natural mineral water" if there has been an addition of carbon dioxide from another origin, according to Article II.3.
  - e) The word "decanted", if the product has been decanted.
  - f) The location of the source, the name of the source and possibly the trade name.
  - g) An inscription to identify the producer.
5. The following particulars may also appear on containers:
- the date of the authorization to commence production (exploitation);
  - the results of analyses,
  - statements concerning properties favourable to health.
6. The name of a locality, hamlet or specified place may not form part of the trade name unless it refers to a natural mineral water produced (exploited) at the place designated by that trade name.
7. The use of any statement or of any pictorial device which may create confusion in the mind of the public about the nature, origin, composition and properties of natural mineral waters put on sale is prohibited.
8. Containers, commercial documents and advertising of water for beverages which do not correspond to the definition of natural mineral water, may not bear any statement liable to create confusion with the latter. In particular, no allusion may be made to properties favourable to health and to statements of analyses.

#### V. Methods of analysis and sampling

1. Modern methods of analysis must be used for testing.
2. It is not possible to define these methods precisely as they change with the advance of scientific research. The international standards for drinking water (WHO) must be applied where it seems indicated.
3. In the detailed report of the analysis, the methods used must be specified.
4. The presentation of the results of the analysis must be made according to the ISM standards (International Standard Measurements); the results must be given in mg/kg, in milliequivalents and in milliequivalents per hundred.

5. The label may show the results of the analysis of the water either as it emerges at the source with the mentioning of any treatment, or of the contents of the bottle.

The Codex Committee on Methods of Analysis and Sampling must endorse these provisions.

VI. Use of natural mineral water in the manufacture of refreshing non-alcoholic drinks

1. The use of natural mineral water is permitted in the manufacture of refreshing non-alcoholic drinks and may be mentioned, but without any reference to properties favourable to health.
2. When these drinks bear the name of a natural mineral water, they may only be manufactured at the place of the exploitation of the source.