

MINISTRY OF HEALTH

SOCIALIST REPUBLIC OF VIETNAM

Independence – Freedom – Happiness

No. 50/2015/TT-BYT

Hanoi, 11 December 2015

CIRCULAR

ON EXAMINATION OF THE HYGIENE AND QUALITY OF DRINKING WATER AND DOMESTIC WATER

Pursuant to the Government's Decree No. 63/2012/ND-CP dated 31 August 2012 on functions, missions, authority and organizational structure of the Ministry of Health;

Pursuant to the Government's Decree No. 117/2007/ND-CP on production, supply and consumption of clean water, and the Government's Decree No. 124/2011/ND-CP dated 28 December 2011 on amendments to certain articles of the Government's Decree No. 117/2007/ND-CP on production, supply and consumption of clean water;

At the request of the Head of the Health Environment Management Agency;

Minister of Health issues the Circular on examination of the hygiene and quality of drinking water and domestic water.

Chapter I

GENERAL

Article 1. Scope of regulation

This Circular regulates the examination of the hygiene and quality of drinking water and domestic water.

Article 2. Terminology

In this Circular, the following words and phrases are construed as follows:

1. *Drinking water* is supplied and assured by water providers of quality for drinking and food preparation according to the Ministry of Health's technical regulations.
2. *Domestic water* is supplied and assured by water providers of quality for common household purposes but not for direct drinking or food preparation according to the Ministry of Health's technical regulations.

3. *Self-supplied water* is supplied and stored by households by themselves for household purposes.

4. *Internal examination* refers to water providers' enforcement of regulations on assurance of hygiene and quality of water they supply, such as their examination of sanitary conditions of raw water sources, hygiene of surroundings and water production system, regulated tests of finished water quality, documentation of monitoring of water hygiene and quality.

5. *External inspection* refers to competent government authorities' inspection of water providers' enforcement of regulations on assurance of water hygiene and quality, such as their examination of general hygiene, internal examination activities and tests of finished water quality.

6. *Water providers* mean organizations and individuals performing parts or all of activities for exploitation, production, sale and supply of drinking water and domestic water.

7. *Finished water* has undergone the final stage of the water treatment process and runs through the conduit network or distribution system towards users.

Article 3. Government authorities authorized to inspect water hygiene and quality in direct manner

1. Preventive medicine centers in provinces and centrally affiliated cities (referred to as provincial medical centers for prevention of diseases), preventive medicine centers in districts, communes and provincial cities (referred to as district-level preventive medicine centers), which carry out preventive functions and are granted authority to inspect the hygiene and quality of water from water providers.

2. Medical service units in communes, wards and towns (referred to as communal medical service units), which are granted authority to inspect the hygiene and quality of self-supplied water.

Chapter II

EXAMINATION OF WATER PROVIDERS' HYGIENE AND QUALITY OF WATER

Part 1. INTERNAL EXAMINATION OF WATER HYGIENE AND QUALITY

Article 4. Examination of hygiene at raw water sources

1. For providers of underground water:

a) Scope of examination: within a minimum radius of 25 meters from the point at which underground raw water is extracted.

b) Content of examination:

- Surrounding fences.
- Buildings (including those of water providers).
- Water conduit system, sewers, canals and sewage gutters that traverse or discharge in water source protection areas.
- Activities regarding industrial production, agriculture and exploitation of natural resources.
- Waste, garbage and sewage from production, trading and daily living activities.

c) Method of assessment: by the Risk grading sheet in Form No. 1 - Appendix 1 of this Circular.

2. For providers of river water:

a) Scope of examination: within a minimum radius of 200 meters from a water extraction point at the river source, within a radius of 100 meters from a water extraction point at the river mouth and within 100-meter distance from each side of the river at its highest water level.

b) Content of examination:

- Signboards indicating boundaries of the water source protection areas.
- Refuse barricade at the water extraction point.
- Boat quays, ferry ports or inland wharves.
- Buildings (including those of water providers).
- Activities regarding industrial production, agriculture, natural resource exploitation, service provision, aquaculture.
- Water conduit system, sewers, canals and sewage gutters that traverse or discharge in water source protection areas.
- Waste, garbage and sewage from production, trading and daily living activities.

c) Method of assessment: by the Risk grading sheet in Form No. 2 - Appendix 1 of this Circular.

3. For providers of water from water storage reservoirs:

a) Scope of examination: within a minimum radius of 300 meters from the water extraction point;

b) Content of examination: pursuant to Point b, Section 2, Article 4 of this Circular;

c) Method of assessment: by the Risk grading sheet in Form No. 3 - Appendix 1 of this Circular.

Article 5. Sanitary examination of surroundings at water providers' facilities

1. Scope of examination: all areas behind protection fences of water providers' facilities.

2. Content of examination:

a) System for collection and treatment of sewage and refuse:

b) Sanitary buildings: hygienic conditions of lavatories (water closets).

3. Method of assessment: by the Sheet for internal examination of water hygiene and quality in Form No. 01 - Appendix 02 of this Circular.

Article 6. Sanitary examination of water production system at water providers' facilities

1. Scope of examination: full system of water production

2. Content of examination:

a) Tanks, basins and reservoirs holding raw or finished water;

b) Water pump stations;

c) System for removal of iron and manganese;

d) Coagulation tank, precipitation tank, filter tank and storage tank;

dd) Sterilization system;

e) Storage of water treatment chemicals: type, name, origin, competent bodies' certificates or written attestations of chemicals for sterilization of drinking water and

domestic water (for sanitizing chemicals), storage conditions, expiration, use, stock, logbook of chemical use;

g) Treatment chemical preparation space;

h) Personal protective equipment as per the laws on work safety

3. Method of assessment: by the Sheet for internal examination of water hygiene and quality in Form No. 01 - Appendix 02 of this Circular.

Article 7. Finished water quality test

1. Parameters:

a) For water providers with intended output of at least 1,000 m³/ full day: all parameters at level A, B and C according to the National technical regulation on quality of drinking water, as issued by the Minister of Health, shall be tested;

b) For water providers with intended output of below 1,000 m³/ full day: all parameters at level A and B according to the National technical regulation on quality of domestic water, as issued by the Minister of Health, shall be tested;

2. Water quality tests must be performed in a laboratory accredited by ISO/IEC 17025: 2005 on water quality parameters to be tested.

Article 8. Frequency of internal examination

1. Periodic examination:

a) Daily sanitary examination of raw water extraction points, surroundings and water production system via the sheet for internal examination of water hygiene and quality in Form No. 01 - Appendix 02 of this Circular;

b) Frequency of finished water quality test:

- For water providers with intended output of at least 1,000 m³/ full day: tests must be done at least once per week on level A parameters, once per six months on level B parameters and once per two years on level C parameters.

- For water providers with intended output of below 1,000 m³/ full day: tests must be done at least once per three months on level A parameters and once per six months on level B parameters.

2. Ad-hoc examination: upon the occurrence of environmental issues, the detection of pollution risks in water sources through sanitary examination(s), the surge in menaces

from production activities to the quality of finished water or the receipt of special requests.

Article 9. Deficiency in water hygiene and quality

If the hygiene and quality of water do not conform to regulations, water providers must implement these actions:

1. Rectify causes of failure in water hygiene and quality and present resultant reports to competent government authorities according to Article 3 of this Circular.
2. If rectification fails, reports must be delivered promptly to supervisory agencies, competent government authorities, local authorities at the location of water providers' facilities and relevant Department of Health for solutions or decisions on termination of water production and supply.

Article 10. Documents on monitoring and management of water hygiene and quality

Water providers must establish and manage documents on monitoring water hygiene and quality, including:

1. Results of water providers' examinations and tests of the quality of raw water and finished water prior to production.
2. Results of periodic sanitary examinations as stated in Point a, Section 1, Article 8 of this Circular and results of ad-hoc sanitary examinations.
3. Results of periodic and ad-hoc tests on raw water quality.
4. Results of periodic and ad-hoc tests on finished water quality.
5. The logbook of finished water sampling, which indicates, for each sampling time, the number of stored samples, locations of sampling, volume of samples, methods for sample storage, time of sampling and storage duration, samplers.
6. Reports and documents on the implementation of water supply safety plans

Part 2. EXTERNAL INSPECTION OF WATER HYGIENE AND QUALITY

Article 11. General sanitary examination

1. Content of examination: sanitary examination of raw water extraction points, surroundings and water production systems as per Article 4, 5 and 6 of this Circular.
2. Method of assessment: by the Sheet for external inspection of water hygiene and quality in Form No. 02 - Appendix 02 of this Circular.

Article 12. Inspection of internal examinations

1. Content of inspection:

- a) Documents on monitoring and management of water hygiene and quality;
- b) Frequency of internal examinations;
- c) Adherence to regulations on reporting of water hygiene and quality.

2. Method of assessment: by the Sheet for external inspection of water hygiene and quality in Form No. 02 - Appendix 02 of this Circular.

Article 13. Finished water quality test

1. Parameters: as per Section 1, Article 7 of this Circular.

2. Water quality tests must be performed in a laboratory accredited by ISO/IEC 17025: 2005 on water quality parameters to be tested.

Article 14. Frequency of external inspection

1. Periodic inspection:

- a) at least once per year for inspection of general hygiene and water providers' internal examinations;
- b) at least once per year for finished water quality tests on level A and level B parameters and at least once per two years for finished water quality tests on level C parameters.

2. Ad-hoc inspection: upon suspicions of finished water quality as to water providers' periodic and ad-hoc reports on water hygiene and quality, upon the occurrence of environmental issues affecting water hygiene and quality, upon the exposure of pollution risks at water sources through examinations of water hygiene and quality or epidemic investigations, upon entities' complaints against water quality or special requests.

Article 15. Deficiency in water hygiene and quality

If external inspection and supervision reveal the non-compliance of water providers' water quality and hygiene with regulations, competent government authorities shall implement these actions:

- 1. Request water providers to rectify causes of failed quality and hygiene of water and to present resultant reports in a prompt manner.

2. Monitor water providers' rectification process. If rectification fails, reports must be delivered promptly to local authorities at the location of the water provider's facilities for solutions or decisions on termination of water production and supply.

Article 16. Quantity and location for water sampling (for internal examination and external inspection)

1. Each test shall require at least 03 samples of the water provider's finished water.
2. Sampling location: 01 sample to be taken from the water provider's tank of post-treatment storage prior to input of water into the distribution conduit grid, 01 sample to be taken from a random faucet in the distribution conduit grid (including means of water transport such as tank truck or water-carrying boat), and 01 sample to be taken from a random faucet at the end of the distribution conduit grid.
3. 01 additional sample shall be taken from the distribution conduit grid in case of water providers that supply water to a mass of at least 100,000 people. One additional test sample shall be required for every increase by 100,000 people.
4. The number of water samples may increase according to each locality's actual circumstances (population, water supply system, economic conditions, testing abilities, risks of water source pollution, plagues).

Chapter III

EXAMINATION OF HYGIENE AND QUALITY OF SELF-SUPPLIED WATER

Article 17. Examination of mountain water and gravity-fed water

1. Scope of examination: within a minimum distance of 100 meters from water extraction points at upper reaches.
2. Content of examination:
 - a) Daily living activities (e.g. bath, washing), production and exploitation of natural resources and minerals;
 - b) Aquaculture activities;
 - c) Cattle, poultry or domestic animals bathing and drinking water;
 - d) Waste, garbage and sewage from production, trading and daily living activities;
 - dd) Equipment for distribution, storage and extraction of water.

3. Method of assessment: by the Sheet for sanitary examination of self-supplied water in Form No. 03 - Appendix 02 of this Circular.

Article 18. Examination of water from wells and boreholes

1. Scope of examination: within a minimum distance of 10 meters from the center of a well.

2. Content of examination:

a) Cover, casings, blockwork, walls (body), adjacent ground surface of the well;

b) Water extraction equipment;

c) Drainage ditch and sewage discharge points;

d) Lavatory, rearing facilities;

dd) Landfills and other sources of contamination;

e) Water pump equipment (if available).

3. Method of assessment: by the Sheet for sanitary examination of self-supplied water in Form No. 03 - Appendix 02 of this Circular.

Article 19. Examination of rain harvest and storage system and water containers such as tank, jar, vat and jug

1. Content of examination:

a) Collection surface and gutters;

b) Trash filter box or screen;

c) Cover, walls and inside sanitary conditions of the tank;

d) Water extraction equipment.

2. Method of assessment: by the Sheet for sanitary examination of self-supplied water in Form No. 03 - Appendix 02 of this Circular.

Article 20. Examination of water treatment area (if available)

1. Content of examination: sanitary conditions of a household's water treatment area, including: bakki shower, filter tank and its inside materials, treated water storage and extraction apparatus.

2. Method of assessment: by the Sheet for sanitary examination of self-supplied water in Form No. 03 - Appendix 02 of this Circular.

Article 21. Examination of water hygiene and quality

1. Examination of water quality before use: at households' discretion.

2. Periodic and ad-hoc examinations:

a) At competent government authorities' discretion;

b) Competent government authorities shall determine the number of households under examination and frequency of examination in a locality according to its actual circumstances (population, geographic conditions, economic conditions, human resource, capacities of testing, risks of water pollution, plagues).

3. Content of examination:

a) Sanitary examination of areas of water exploitation and treatment;

b) Water quality test: samples are taken from a faucet in use or water container in the household and are tested in laboratories accredited by ISO/IEC 17025:2005 on water quality parameters to be tested. Test parameters shall adhere to the Ministry of Health's national technical regulation on domestic water quality.

Article 22. Deficiency in water hygiene and quality

If the hygiene and quality of self-supplied water are unqualified, the household concerned shall be requested to rectify problems promptly. The household, if failing to rectify problems, must stop using the defective water source and report to the People's committee of the ward in which that household is residing to solicit solutions.

Chapter IV

REPORTING

Article 23. Disclosure of information on hygiene and quality of finished water

1. Disclosure of results of internal examinations:

a) Content of disclosure: when water providers acquire result(s) of periodic or ad-hoc examination(s) of finished water quality, they shall be responsible for summarizing results of the following tests for disclosure of information on finished water quality:

- Total quantity of test samples.

- Total quantity of compliant samples.
- Total quantity of test parameters.
- Total quantity of parameters passed.
- Parameters failed: total quantity, test result, sampling location
- Solutions and time for rectification of failure in hygiene and quality of water.

Water providers are encouraged to disclose all results, in detail, of tests on water quality parameters.

b) Method of disclosure: water providers in 3 days upon acquiring water quality test results shall be responsible for posting such results at the entrance of their facilities and through one of these methods:

- Water quality test results shall be published on the website(s) of the water provider or its supervisory organization (if applicable).
- Water quality test results shall be announced on means of mass media.

2. Announcement of results of external inspections of water hygiene and quality:

a) Results of external inspections of water hygiene and quality shall be announced in writing to:

- Entities inspected.
- Supervisory organizations of entities inspected and competent state management authorities in local areas.

b) Results of external inspections of water hygiene and quality shall be published on the websites of competent state management authorities, water providers or their supervisory organizations (if applicable).

Article 24. Reporting

1. Content of report:

a) Water providers shall report information as defined in Appendix 3 of this Circular in writing and file reports via the water quality supervision software as released by competent government authorities of the Ministry of Health.

- For water providers with intended output of at least 1,000 m³/ full day: reports shall be presented on monthly basis to the provincial preventive health center and competent state management authorities at the location of the water provider's facilities.

- For water providers with intended output of below 1,000 m³/ full day: reports shall be presented on quarterly basis to the provincial preventive health center or a medical center, which conducts preventive medicine activities, and competent state management authorities at the location of the water provider's facilities.

b) Communal medical service units shall report information as stated in Form No. 01 - Appendix 4 of this Circular to the relevant district-level preventive health center or medical center conducting preventive activities in writing;

c) District-level preventive health centers or medical centers conducting preventive activities shall report information as defined in Form No. 02 - Appendix 04 of this Circular to the relevant provincial preventive health center in writing;

d) Provincial preventive health centers shall report in writing to the Department of Health in the relevant province or centrally affiliated city (referred to as the provincial Department of Health), regional institutes (including the National Institute of Occupational and Environmental Health, Institute of Hygiene and Epidemiology of Tay Nguyen, Nha Trang's Pasteur Institute, Ho Chi Minh City's Institute of Hygiene and Public Health), and Health Environment Management Agency under the Ministry of Health. Such report shall indicate information as defined in Form No. 03 and Form No. 04 - Appendix 4 of this Circular. Moreover, reports shall be filed through the water quality control software released by competent government authorities under the Ministry of Health;

dd) National Institute of Occupational and Environmental Health, Institute of Hygiene and Epidemiology of Tay Nguyen, Nha Trang's Pasteur Institute, Ho Chi Minh City's Institute of Hygiene and Public Health shall report information as defined in Form No. 05 - Appendix 4 of this Circular to the Health Environment Management Agency. Moreover, reports shall be filed through the water quality control software.

2. Reporting period:

a) A monthly report shall cover the 1st to the last date of the month;

b) A quarterly report shall cover the 1st to the last date of March, June, September and December;

c) A yearly report shall cover the 1st of January to the 31st of December inclusive of the year.

3. Report delivery time:

a) Time for delivery of monthly reports:

In no later than 07 working days upon its finalization of records, a water provider with intended output of at least 1,000 m³/ full day must report to the provincial preventive health center.

b) Time for delivery of quarterly reports:

- In no later than 05 working days upon its finalization of records, a water provider with intended output of below 1,000 m³/ full day must report to the district-level preventive health center or medical center that conducts preventive activities.

- No later than 10 working days upon its finalization of records, a district-level preventive health center or medical center conducting preventive activities shall report to the relevant provincial preventive health center and deliver a copy to the relevant district health office.

- No later than 15 working days upon its finalization of records, a provincial preventive health center shall report to the Health Environment Management Agency - Ministry of Health, relevant provincial Department of Health and regional institutes concerned.

c) Time for delivery of yearly reports:

- No later than 05 working days upon its finalization of records, a communal medical service unit shall deliver a periodic report to the relevant district health center and another copy to the district health office.

- No later than 10 working days upon its finalization of records, a district-level preventive health center or medical center conducting preventive activities shall report to the relevant provincial preventive health center and deliver a copy to the relevant district health office.

- No later than 15 working days upon its finalization of records, a provincial preventive health center shall report to the Health Environment Management Agency - Ministry of Health, relevant provincial Department of Health and regional institutes concerned.

- No later than 20 working days upon its finalization of records, regional institutes must report to the Health Environment Management Agency - Ministry of Health.

d) Time for delivery of ad-hoc reports:

Reports must be made by phone, fax or email in 24 hours and in writing in 72 hours upon sudden events. Reports made at higher authorities' requests shall be delivered as requested.

Chapter V

ENFORCEMENT

Article 25. Effect

1. This Circular comes into force as of 01 March 2016.
2. This Circular replaces guidelines on sanitary examination of clean water and drinking water in the Circular No. 15/2006/TT-BYT dated 30 November 2006 by Minister of Health on guidelines for sanitary examination of clean water, drinking water and household lavatories, regulation on frequency of competent authorities' periodic supervision in Point b, Section 1 and Point b, Section 2, Volume II, Part III on Water quality supervision in the National technical regulation on drinking water quality enclosed to the Circular No. 04/2009/TT-BYT dated 17 June 2009 by Minister of Health, regulation on frequency of competent authorities' periodic supervision in Point b, Section 1 and Point b, Section 2, Volume II, Part III on Water quality supervision in the National technical regulation on drinking water quality enclosed to the Circular No. 05/2009/TT-BYT dated 17 June 2009 by Minister of Health.

Article 26. Reference

If documents referred to in this Circular are replaced, amended or added, such replacements, amendments shall prevail.

Article 27. Enforcement

1. Health Environment Management Agency of Ministry of Health shall be responsible for:
 - a) Managing, directing, expediting, guiding, inspecting and supervising sanitary examinations and quality of drinking water and domestic water on national-wide scale;
 - b) Establishing, amending, adding and presenting written guidelines, standards and technical regulations to competent authorities involved in sanitary examination and quality of drinking water and domestic water;
 - c) Summarizing information on water quality and annual local reports on sanitary inspections and examinations of quality of drinking and domestic water to make reports to the heads of the Ministry of Health;
 - d) Leading and cooperating with competent government authorities under the Ministry of Construction and Ministry of Agriculture and Rural development to conduct state management over the provision of drinking and domestic water, to carry out joint inspections of water providers' compliance with regulations on assurance of hygiene and quality of drinking and domestic water.

2. National Institute of Occupational and Environmental Health, Institute of Hygiene and Epidemiology of Tay Nguyen, Nha Trang's Pasteur Institute, Ho Chi Minh City's Institute of Hygiene and Public Health shall be responsible for:

- a) Summarizing, analyzing and reporting the sanitary conditions and quality of drinking and domestic water in provinces within authority to incorporate plans on technical and professional supports;
- b) Studying and recommending technical solutions for examinations of the hygiene and quality of drinking and domestic water and for assurance of water source hygiene;
- c) Providing technical guidelines to local organizations for examinations of the hygiene and quality of drinking and domestic water;
- d) Examining the hygiene and quality of drinking and domestic water upon natural disasters, plagues or upon requests.

3. Departments of Health shall be responsible for:

- a) Directing inferior units to inspect and supervise the hygiene and quality of drinking water, domestic water and self-supplied water in provinces and cities;
- b) Conducting inspections or cooperating with competent state management authorities to carry out periodic and ad-hoc inspections of the hygiene and quality of drinking and domestic water from water provinces in provinces and cities;
- c) Maintaining personnel, equipment and finances (from the annual budget) for inspection and supervision of the hygiene and quality of drinking water, domestic water and self-supplied water in provinces and cities.

4. Provincial preventive health centers shall be responsible for:

- a) Conducting periodic and ad-hoc external inspections of the hygiene and quality of water from all water providers with intended output of at least 1,000 m³/ full day in provinces and cities;
- b) Cooperating with district-level preventive health centers or medical centers performing preventive activities to carry out periodic and ad-hoc external inspections of the hygiene and quality of water from water providers with intended output of below 1,000 m³/ full day and self-supplied water within authority;
- c) Establishing and presenting annual plans and budget estimates for inspection of the hygiene and quality of drinking water, domestic water and self-supplied water to competent authorities for approval.

5. District-level preventive health centers or medical centers performing preventive activities shall be responsible for:

- a) Conducting periodic and ad-hoc external inspections of the hygiene and quality of water from all water providers with intended output of below 1,000 m³/ full day;
- b) Coopering with communal medical service units to carry out ad-hoc inspections of general sanitary conditions of self-supplied water within authority;
- c) Establishing and presenting annual plans and budget estimates for inspection of the hygiene and quality of drinking and domestic water to competent authorities for approval.

6. Communal medical service units shall be responsible for:

- a) Conducting periodic and ad-hoc inspections of general sanitary conditions of self-supplied water within authority;
- b) Establishing and presenting annual plans and budget estimates for inspection of the hygiene and quality of self-supplied water to competent authorities for approval.

7. Provincial People's Committees shall be responsible for:

- a) Reviewing, revising and adding water provision plans to maintain the supply of clean water to the people; prioritizing supply of clean water to areas deficient in water or using water polluted by industrial, agricultural and professional activities; and directing the establishment of plans for safe water supply at provincial level;
- b) Allocating annual finances to periodic and ad-hoc inspection and supervision of water quality, and facilitating upgrades of laboratory equipment in relevant provincial preventive health centers to enable them to test and monitor parameters as per current regulations;
- c) Directing departments and agencies to intensify joint inspections of water factories, water providers, water tanks in tenement buildings, industrial zones, collective zones and households. Taking strict actions against entities violating current regulations on water quality;
- d) Directing water providers within authority to conduct examinations of water hygiene and quality, implement solutions for assurance of water quality and disclose information on water quality through mass media in a strict manner.

8. Water providers shall be responsible for:

- a) Conducting internal examinations of the hygiene and quality of water as per current regulations;

b) Disclosing information and reporting internal examinations of the hygiene and quality of drinking water to competent government authorities;

c) Submitting to inspections and supervision by competent government authorities.

Difficulties shall be reported to the Health Environment Management Agency - Ministry of Health for solutions./.

**FOR MINISTER
DEPUTY MINISTER**

Nguyen Thanh Long

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