EXCERPT TAKEN FROM THE JOURNAL OF THE REGULAR SESSION OF THE
SANGGUJNIANG PANLUNSOD OF THE CITY OF ALAMINOS, PANGASINAN HELD ON

PRESENT:
- Councilor Apolonio G. Bacay - Temporary Presiding Officer
- Councilor Rufina J. Gabriel - Majority Floor Leader
- Councilor Margielou Orange Humilde-Verzosa, DPA - Minority Floor Leader
- Councilor Joselito O. Fontelera - Member
- Councilor Carolyn D. Sison - Member
- Councilor Alfred Felix E. de Castro - Member
- Councilor Rany S. de Leon - Member
- Councilor Perlito V. Rabago - Member
- Councilor Cirilo B. Radoc - Member
- Councilor Froebel A. Ranoy - Member

ABSENT:
- Vice Mayor Jose Antonio Miguel Y. Perez - On leave
- LBP Raul B. Bacay - On official travel

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ORDINANCE NO. 2017-14

CODE ON SANITATION

Author: Former Councilor Jan Marianne R. Fontelera
Sponsors: Councilor Joselito O. Fontelera
          Councilor Cirilo B. Radoc

WHEREAS, Chapter 2, Section 16 of Republic Act 7160 otherwise known as the
Local Government Code of 1991 mandated every local government unit to ensure and
support, among other things the preservation and enrichment of culture, promote health
and safety, enhance the right of people to a balanced ecology xxx;

WHEREAS, with the advance in the field of sanitation in recent years, there
arises the need for updating and codifying our scattered sanitary laws to ensure that
they are in keeping with modern standards of sanitation and provide a handy reference
and guide for their enforcement;

WHEREFORE, premises considered, and on motion of Councilor Joselito O.
Fontelera, duly seconded by all the other members present, it was

BE IT ENACTED as it is hereby ENACTED by the Sangguniang Panlunsod of
the City of Alaminos, Pangasinan in session duly assembled that:

CHAPTER I

GENERAL PROVISIONS

SECTION 1. TITLE – This Code shall be known as "The Sanitation Code of
Alaminos City, Pangasinan".

SECTION 2. DEFINITION OF TERMS - Whenever any of the following words or
terms is used herein or in any rule or regulation issued under this Code, it shall have the
meaning given it in this section, as follows:
a. **Code** - Code on Sanitation of the City of Alaminos.
b. **Local Health Authority** - refers to the City Mayor who is responsible for the implementation of a prescribed measure in the City Of Alaminos.
c. **Health Officer** - refers to the City Health Officer.
d. **Inspector** - a Sanitary Inspector.
e. **Section** - any section of this code unless the term refers to other statutes which are necessarily mentioned.

**SECTION 3. AUTHORITY OF THE LOCAL HEALTH AUTHORITY** - The City Mayor shall administer health functions in the City and shall enforce the provisions of this Code and the rules and regulations promulgated by the Secretary of Health and the Sangguniang Panlungsod.

**SECTION 4. FUNCTIONS OF THE CITY HEALTH OFFICER** - The City Health Officer shall have the following powers and functions:

a. Undertake the promotion and preservation of the health of the people and raise the health standards of individuals and communities throughout the City;
b. Extend maximum health services to the people in rural areas and provide medical care to those who cannot afford it by reason of poverty;
c. Develop, administer and coordinate various health activities and services which shall include public health, preventive, curative and rehabilitative programs, medical care, health and medical education services;
d. Upgrade the standards of medical practice, the quality of health services and programs to assure the people of better health services;
e. Assist local health agencies in developing public health programs including medical care, and promote medical and public health research;
f. Issue permits to establish and operate government and private hospitals, clinics, dispensaries, schools of nursing, midwifery, and other para-medical course, nurseries, and other institutions, and arrange for the registration of health establishments and services;
g. Recommend standard rates of fees for health, medical, laboratory, and other public health services; and
h. Performs such other functions as may be provided by law.

**CHAPTER II**

**WATER SUPPLY**

**SECTION 5. PRESCRIBED STANDARDS AND PROCEDURES** - Standards for drinking water and their bacteriological and chemical examinations, together with the evaluation of results, shall conform to the criteria set by the National Drinking Water Standards. The treatment of water to render it safe for drinking, and the disinfection of contaminated water sources together with their distribution systems shall be in accordance with procedures prescribed in this Code.

**SECTION 6. JURISDICTION OF THE HEALTH OFFICE** - The approval of the City Health Officer or that of his duly authorized representative is required in the following cases:

a. Sites of water sources before their construction;
b. Delivery of water to consumers from new or recently repaired water systems;
c. Operation of a water system after an order of closure was issued by the city;
d. Plans and specifications of water systems of subdivisions and projects prior to
the construction of housing units thereon; and

e. Certification of potability of drinking water.

CHAPTER II – A

WATER SUPPLY

SECTION 7. SCOPE - These rules and regulations shall apply to all public and private
water supply system projects planned by any government agency or instrumentality
including government-owned or controlled corporations, private organizations, firms,
individuals or other entities.

SECTION 8. DEFINITION OF TERMS
As used in this Code, the terms below shall be defined as follows:

1. Artesian Well – a well where water is confined under hydrostatic pressure
between two relatively impervious layers such as rock formations.
2. Bored Well – a well constructed by manually drive augers into the ground.
3. Cistern – a watertight tank used to store water.
4. Coliform Organisms – any rod-shaped, non-spore-forming, gram negative
bacteria capable of growth in the presence of bile salts, or other surface-active
agents with similar growth-inhibiting properties which are cytochrome-oxidase
negative and able to ferment lactose at either 35°C or 37°C with the production
of acid, gas and aldehyde within 24-48 hours.
5. Complete Treatment – a series or combination of water treatment processes,
which shall include coagulation, adsorption, sedimentation, slow and rapid sand
filtration, aeration and chlorination.
6. Contamination – a general term referring to the introduction of materials not
normally found in water that make the water less desirable or unfit for its
intended use.
7. Deep Well – a well with depth greater than 20 meters constructed in areas
characterized by aquifers or water-bearing formations generally located at a
depth of more than 20 meters below the surface.
9. Disinfections – water treatment processes designed to destroy disease-causing
organisms. The efficacy of disinfections is often assessed by measuring the
coliform group of indicator organism.
10. Doubtful source – water supply facility or source that is subject to
recontamination (e.g. open dug well, unimproved spring, surface water).
11. Drilled Well – a well constructed by percussion or rotary drills.
12. Drinking Water – water intended for direct human consumption or for use in
food preparation.
13. Driven Well – a well constructed by driving an iron pipe with a well point at
lower end into the ground water bearing stratum.
14. Dug Well – a well normally circular or rectangular in shape, with diameter
ranging from 1.0 to 1.15 meters. After the well is dug, it is necessary to put a
lining made of permanent materials like masonry, brickworks of reinforced
concrete, which serve as protection against surface or outside contamination. An
open dug well shall mean a well manually or mechanically to draw water by use
of bucket or any container attached to a rope.
15. Groundwater – that portion of the rainwater, which has percolated into the
earth to form underground deposits called aquifers.
16. **Level I (point source)** – a protected well or a developed spring with an outlet by without distribution system, generally adaptable for rural areas where the houses are thinly scattered. A level I facility normally serves around 15 households.

17. **Level II (Communicable faucet system or stand posts)** – a system composed of a source, a reservoir, a piped distribution network and communal faucets, generally suitable for rural and urban fringe areas where houses are clustered densely to justify a simple piped system. Usually, one faucet serves 4 to 6 household.

18. **Level III (waterworks system or individual house connections)** – a system with a source, a reservoir, a piped distribution network and household taps, generally suited for densely populated urban areas.

19. **City Health Authority** – refers to the City Mayor

20. **City Health Officer** – refers to the City Health Officer.

21. **MPN (Most Probable Number)** – a statistical method of determining microbial populations. A multiple dilution tube technique is utilized with a standard medium and observations are made for specific individual tube effects. Resultant coding is translated by mathematical probability table into population numbers.

22. **Pipe Lines** – pipes used to transport water.

23. **Polluted Water** – water whose physical, chemical, bacteriological, biological and radio-active properties have been altered due to the presence of domestic sewage, industrial waste or other substances in water that are possibly objectionable or harmful to human lives.

24. **Potable Water/Safe Drinking Water** – water that is free of microorganisms or diseases – producing bacteria (Pathogens). In addition, the water should not possess undesirable taste, odor, color, levels of radioactivity, turbidity or chemicals and it should pass the standards of the Philippine National Standard for Drinking Water.

25. **Public or Private Water Supply System** – a government or private owned system for the provision of potable water for human consumption. The water system could either be of Level I (point source), Level II (communal) or Level III (waterworks) type. The system includes:
   a. Any collection, treatment, storage and distribution facilities under the control of the operator of such system and used primarily in connection thereto; and
   b. Any collection, pre-treatment, or storage facilities not under the control of the operator of the system, which are used primarily in connection with such system.

26. **Reservoir** – a pond, lake or basin, either natural or artificial, designed for storage, regulation and control of water.

27. **Sanitary Engineer** – a person duly registered with the Board of Examiners for sanitary Engineers (R.A. 1364) and who heads the sanitation division or section or units of the city health office or employed with the Department of Health or its regional field health units.

28. **Sanitary Seal** – a mixture of cement and water placed in the annular space of the well casing and drill hole to seal space and about 3 meters deep to prevent the intrusion of water.

29. **Sanitary Survey** – an activity to inspect and investigate the existing environment conditions around the water source, which may affect the quality of the water.
30. **Sanitation Inspector** – a government official or personnel employed by the city government, who enforces sanitary rules, laws and regulation and implements environmental sanitation activities under the supervision of the city health officer/sanitary engineer.

31. **Secretary** – the Secretary of Health.

32. **Shallow Well** – a well measured from the natural ground surface with a depth of not more than 20 meters.

33. **Springs** – ground water seepage visible at the earth’s surface due to hydrostatic gradient or head.

34. **Surface Water** – a mixture of surface run-off and groundwater. Surface sources include rivers, lakes, streams, ponds and impounding reservoirs.

35. **Test Well** – an excavation made to determine the quality and quantity of water.

36. **Water Hauler** – any person, firm or company who transports, stores, delivers and operated equipment used to transport of deliver water for human consumption.

37. **Water Supplier** – any entity, government or private company, responsible for source development, water abstraction, treatment and distribution of water.

38. **Well** – a man made hole used for recovering ground water from the water bearing strata by digging, boring, drilling or by any other method.

39. **Well Driller** – an individual, partnership, corporation, cooperative and the like who undertake well drilling work or activities for the purpose of extracting ground water.

**SECTION 9. PRESCRIBED STANDARDS AND PROCEDURES**

**A. STANDARD PARAMETERS AND VALUES FOR DRINKING WATER**

Before water is used, distributed or sold for drinking, it should pass the criteria on standard parameters and values for bacteriological, physical, chemical, biological and radiological quality set by the Philippine National Standards for Drinking Water.

**B. WATER TREATMENT** – is a required process of treatment of water from underground or surface sources having MPN or coliform organisms of 50 per 100ml to not more than 5,000 per 100ml.

Treatment is necessary so as to render water supply potable. The degree and manners of treatment will depend on the quality of the raw water; however, the bacteriological quality shall be used as the main criterion. No water supplier shall be allowed to operate water system for public use unless necessary treatment has been provided.

1. **GROUP I – WATER REQUIRING DISINFECTION ONLY:**
   Water from underground or surface sources subject to a low degree of contamination, and having a MPN of coliform organisms not exceeding 50 per 100 ml.

2. **GROUP II – WATER REQUIRING COMPLETE TREATMENT:**
   Water from underground or surface sources having a MPN of coliform organisms exceeding 50 per 100 ml to not more than 5,000 per 100 ml.

**C. WATER DISINFECTION** – is a required process of disinfecting water from underground or surface sources subject to a low degree of contamination and having a MPN of coliform organisms not exceeding 50 per 100ml.
1. Disinfection of water supply facilities shall be required for the following:
   a. Newly constructed water supply facilities.
   b. Water supply facility that has been repaired/improved.
   c. All existing water facilities that exceeded the bacteriological value set by the Philippine National Standards for Drinking Water.
   d. All water facilities that require continuous disinfection.
   e. Drinking water collected from a doubtful source.

2. Disinfectant
   Chlorine shall be used as main water disinfectant. Other disinfectant shall be used provided that it has residual effect to ensure disinfecting capacity in the distribution system.

3. Responsible Agencies/Persons for Disinfection
   Water disinfection shall be the responsibility of the following as shown on the table:

<table>
<thead>
<tr>
<th>Type of Water Supply</th>
<th>Agencies/Persons Responsible for Disinfection</th>
<th>PERSON Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Level I</td>
<td>BWSA, Barangay Official and Local Health Agency</td>
<td>Caretaker with Sanitation Inspector (SI)</td>
</tr>
<tr>
<td>(wells, springs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levels II and III</td>
<td>Water Supplier (e.g. Alaminos City Water District)</td>
<td>Waterworks Personnel</td>
</tr>
<tr>
<td>Private Wells</td>
<td>Individual/Owner</td>
<td>Private Owner with SI technical assistance</td>
</tr>
</tbody>
</table>

4. Requirements for Chlorination of Level II and III Water Supplies.
   a. Appropriate chlorination equipment shall be installed to ensure continuous and effective disinfection.
      1. Chlorination equipment shall have a capacity of at least 50% greater than the highest expected dosage to be applied at anytime to attain satisfactory operation.
      2. Automatic proportioning of chlorine dosage to the rate of flow of treated water shall be provided at all plants where rate of flow varied more than 50% above or below the average flow. Manual control is permissible when rate of flow is relatively uniform or an attendant is present to effect dosage adjustments.
      3. Standby units shall be provided to ensure continuous operation.
      4. Solution of calcium hypochlorite shall be prepared in a separate mixing tank, diluted and allowed to settle so that only clear supernatant liquid is withdrawn from the solution storage tank and to the chlorinator.
      5. Devices and instruments for the determination of the amount of daily chlorine dosage and chlorine residual shall be provided.

   b. Suitable gas mask or self-contained type breathing apparatus and a small bottle of fresh ammonia solution to test for chlorine leakage shall be provided and shall be accessible outside the chlorination room.

   c. Safety measures for gas chlorination equipment and chlorine storage shall include a separate building or room subject to the approval of the Department of Health.
d. Adequate floor level ventilation shall be provided for all enclosures where chlorine is being fed or stored.
e. Free residual chlorine shall be maintained between 0.20 to 0.50 ppm until water reaches the consumer and the farthest point in the distribution system.

5. Requirements for Complete Chlorination of Level Water Supply Facility

a. A dose of 50-100 ppm chlorine solution shall be used in disinfecting Level I water supply facility. (See Annex – Chlorine Requirement to have 50-100 ppm dosage).
b. The person who will conduct the chlorination shall observe personal hygiene and must be free from communicable disease.
c. Procedures to follow on disinfection.

1. Improved Dug Well

a. Scrub interior walls of the casing or lining and splash with chlorine solution (50-100 ppm) to ensure thorough contact of solution to the surface.
b. Wash the exterior surface of the pump cylinders and drop pipe with chlorine solution as the assembly is lowered into the well.
c. Return cover of the well and pour chlorine solution through a manhole or pipe sleeve opening before inserting the pump cylinder and drop pipe assembly. After setting the pump, draw out water from the well until strong odor of chlorine is noted.
d. After 12 hours, flush out well water by pumping water to waste until the drawn water is free from chlorine odors. Rinse the exterior surface and the pump cylinder with potable water.

2. Drilled Driven and Bored Wells

a. Slowly pour chlorine solution into the well just before installing the permanent pumping equipment. Dilution of chlorine is facilitated by alternately raising or lowering the water hose or pipeline.
b. Wash the exterior surface of the pump cylinder and drop pipe with chlorine solution as the assembly is lowered into the well.
c. After the pump has been set, operate the pump upon the water is discharged.
d. Allow chlorine solution to remain in the well for 12 hours. For deep well, a special method may be employed as follows: Place the granulated calcium hypochlorite in a cut short pipe capped of both ends. Small holes are drilled at each cap or sides of the pipe. One cap is fitted with an eye for cable attachment. Disinfecting agent is diffused by vertical movement of the cut short pipe.
e. After 12 hours, draw out well water. The pump is to be operational when pumped water is free from chlorine odor.

3. Spring

1. Disinfection of spring intake box is similar to the procedure used for improved dug wells.
2. If the flow cannot be controlled, continuous supply of disinfectant shall be provided.
(Cont. Ord. No. 2017-14, enacted on 23rd day of October, 2017)

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4. Cistern
   a. The cistern clean shall be thoroughly cleaned by using a stiff brush or broom to clean interior wells.
   b. Drain and cover the cistern.
   c. Fill the cistern with adequate potable water and add 50-100 ppm chlorine solution.
   d. Pump water from the cistern and note the presence of strong chlorine odor in the entire water distribution system.
   e. Retain the disinfectant in the cistern for 24 hours then examine for residual chlorine and drain.
   f. Flush the system with potable water to remove all traces of chlorine.

5. Requirements for Household Container Disinfection

   Procedure to follow
   a. Prepare a stock solution by dissolving 1 level teaspoon of powder Chlorine compounds (65% to 75% available chlorine) to one liter of water. This stock solution is effective only for one week.
   b. Add two teaspoons of stock solution to 5 gallons (20 liters) of water. Mix thoroughly and let it stand for at least 30 minutes before using.

D. Standard Construction and Operating Procedures

   Ground Water Source
   1. Well
      a. The location of well site shall conform with the following requirements:
         1. No well site shall be located within a distance of less than 25 meter radius on flat areas from sewage treatment plant, sewage wet well, sewage pumping station, or a drainage ditch which contains industrial waste discharges or wastes from sewage treatment systems, sanitary landfill or land irrigated by sewage treatment plant effluent, sanitary sewers, septic tanks, cesspools, open jointed drain-fields, animal feed lots or livestock in pastures, dump grounds, especially in limestone areas. Storm and sanitary sewers located within specified distances shall be so constructed as to prevent leakage.
         2. The drilling of water well within 50-meter distance from a cemetery is prohibited.
      b. During drilling operation, the following requirements shall be observed:
         1. The premises, materials, tools, and drilling equipment shall be properly maintained to minimize contamination of underground water.
         2. Water used in drilling operation shall be potable.
         3. Slush pit shall be constructed and maintained to minimize contamination of the drilling mud.
         4. Approved type of pit privy or toilet facilities for use of drilling personnel shall be provided. These facilities shall be located 25 meters from the well being drilled. Upon completion of the
constructed well, toilet facilities if temporarily constructed shall be removed in a satisfactory manner. No temporary and permanent toilet facilities shall be maintained within 25 meters from the well being constructed unless they are of the sealed or leak proof types.

c. Casing materials used in the construction of public wells shall conform with the American Standards for Testing Materials (ASTM). The casing shall extend at least to the depth of the shallowest water formation or deeper if necessary to omit undesirable water bearing strata.

d. The annular space between the casing and the drill hole shall be sealed with neat cement grout to the minimum depth of 3.0 meters for shallow wells and 10.0 m for deep well.

e. In all cases, provide a concrete apron at least 2 meters square around the well head, sloped not less than 2% to drain away excess water.

f. Provide vent with #16-mesh corrosion resistant screen, face downward and elevated to minimize drawing of contaminants into the well. Seal wellheads and pump bases using gaskets, sealing compounds and proper venting to prevent possible contamination to the well water.

g. A complete physical and chemical analysis of water from a new well shall be conducted after 36 hours of pumping out of water is done.

h. If the results show that the water is bacteriologically positive (+), appropriate water treatment facilities shall be provided otherwise the well shall be abandoned. The well shall be disinfected in accordance with the standard requirements set by these implementing rules and regulations. Collect two water samples for two-week interval for bacteriological analysis.

i. When contamination of a well water source has been confirmed by laboratory test and the sources of contamination is definitely known but cannot be removed, the well must be condemned. The well opening must be plugged or sealed with concrete or other similar materials. If used for other purposes like watering gardens and washing clothes a signboard marked "Water Unfit For Drinking" shall be installed.

j. Pump site, rapid pump room location and pump installation.
   a. All completed well units shall be preferably protected by fences, the gates provided with locks, or enclosed to prevent possible contamination or damage of facilities by trespassers.

   b. The well site shall be properly graded to insure proper ground maintenance and to draw off surface water effectively from the well. In all cases, provide a system that draws off water from the pump well, leakage from packed gravel, and floor drainage, by installing suitable drain pipes located at the edge of the concrete floor to prevent ponding around the well head. This wastewater shall be properly disposed. Drains shall not be directly connected to storm or sanitary sewers.

   c. In water supply installation at sub-ground level, pump rooms and pump pits are prohibited. Pump room floor shall be at least 60 cm. Above the highest known flood level and/or adequately protected from possible damage by floodwaters.
2. Spring
   a. Intake box or enclosure must be watertight, made of concrete, vitrified tile or other material extending to the water bearing strata down to the bedrocks or other impervious formations.
   b. The intake box must be provided with watertight cover, which extends over the top edge of the spring box at least 50 mm.
   c. A drainpipe with an exterior valve is to be placed close to the spring box near the bottom. The pipe shall extend horizontally so as to clear the normal ground level at the point of discharge by at least 150 mm. The discharge end of the pipe shall be screened to prevent the entrance of rodents or insects.
   d. The spring is to provide with screened overflow pipe located slightly below the maximum water level elevation. A drain apron is to be provided to prevent soil erosion at the point of overflow discharge.
   e. The supply outlet from the developed spring is to be located about 150 mm above the drain outlet and screened.
   f. Manhole opening shall have a watertight curb with edges projecting a minimum of 100 mm above the level of the surrounding surface. The edges of the manhole cover shall overlap the curb and project downward a minimum of 50 mm.
   g. Care shall be taken in casting openings to insure watertight connection between the wall and the openings.
   h. A drainage ditch located at least 25 meters away on the uphill side of the spring shall be constructed to prevent contamination and flooding of the water source.
   i. The intake box shall be properly enclosed preferably constructed of strong materials. The height of the fence shall be at least 1 1/2 meter high. The enclosed area shall be maintained clean to eliminate harborage and breeding of insects.
   j. Washing and bathing within 25 meters radius of the spring is prohibited.
   k. Protection of the entire catchments area is a must. No dwelling shall be constructed within the catchments area and it shall be off-limits to people and animal.
   l. Collect water samples regularly as prescribed by the Philippine National Standards for Drinking Water.

3. Monitoring Scheme
   The city health authority shall establish a Water Surveillance Program thru the creation of Local Drinking Water Quality Monitoring Committee to oversee the operation of the water systems and the quality of water produced and distributed by them and to monitor the implementation of the provisions of these implementing rules and regulations.
   a. Composition
      The Local Drinking Water Quality Monitoring Committee shall be composed of but not limited to representatives from:
      
      I. Local Health Authority- Chairman
      II. City Health Department
      III. Water Districts/Private Water Suppliers
      IV. Sangguniang Panlungsod
V. City Engineer's Office
VI. Department of Environment and Natural Resources Representative (CENRO)
VII. Non-Government Organizations and Professional Groups Related to Health and Sanitation
VIII. DOH Representative to the City Health Board

b. Functions of the Committee
The Committee shall be responsible for:

I. Regular collection/analysis of water samples;
II. Evaluating laboratory results as to their compliance to standards;
III. Conducting regular or immediate sanitary survey during the existence of a potential cause of contamination;
IV. Instituting remedial measures to correct the deficiency of the water system and;
V. Informing the public of the latest quality of the drinking water in the locality.
VI. Performing other functions related to water quality assurance.

SECTION 10. APPROVAL AND PERMIT
The approval of the City Health Officer or that of his duly authorized is required under each of the following cases:

a. Sites of Water Sources before their Construction
Any person, who intends to drill, construct, alter or repair water supply system, shall secure a Drinking Water Site Clearance from the City Health Authority prior to the start of the work. The approval of the application shall be based on the recommendations made by the city health officer after the conduct of the sanitary survey. The sanitary survey report shall contain all pertinent information concerning the water source and possible sources of contamination. Major water supply projects particularly of surface water sources that fall under the Environmental Impact Statement System are exempted from site clearance requirements provided and Environmental Health Impact Assessment has been conducted as part of the Environmental Impact Assessment.
If the work on the individual water supply system failed to commence within six (6) months from date of issuance, the site clearance shall automatically expire.

b. Delivery of Water to Consumers from New or Recently Repaired Water Systems.
Permits to deliver water to consumers from new or recently repaired water system shall be granted only if:
1. Final inspection by the city health officer proves that the water supply was constructed in accordance with the submitted plans and specifications.
2. The disinfection of water supply system conformed to Section 3.3 – Water Disinfection of these rules and regulations.
3. Results of laboratory analysis proved that the water quality meets the Philippine National Standards for Drinking Water.
4. The water supplier or the owner of the completed water supply system shall notify the city health officer of the completed system.
c. Resumptions of the Operation of Water Supply System
   1. In cases when water supply is found to be unsafe or unfit for consumption, the operator of the system shall be ordered to:
      a. Stop temporarily to make necessary corrections within a specified period.
      b. Provide substantial quantity and good quality of water to the affected consumers during the correction period. Failure to provide emergency water supply should be subject to fines and penalties. A permission to re-operate from the city health authority upon the recommendation of the city health officer shall be given only when all defects have been corrected and the water found safe for drinking and domestic use.

d. Plans and Specification of Water Systems of Subdivision and Projects prior to the construction of Housing Units thereat.
   1. To obtain approval for the construction of any water supply system, the applicant shall submit the plans and specifications of the proposed systems, and satisfy the standard requirements of these implementing rules and regulations. Plans and specifications shall be prepared by the registered civil/sanitary engineer, the seal signature and registration number of the engineer of the engineering firm shall be imprinted on each sheet of the plan.
   2. An Engineering report or feasibility study of the new system shall be submitted with or prior to the submission of the plans and specifications.

The report coverage shall include the following items:
   a. Statement of the problem or problems.
   b. Present and future areas to be served, with population data.
   c. The source, quantity and quality of water.
   d. Present and estimated future maximum and minimum water quantity demands.
   e. Description of the proposed site and the immediate surroundings of the waterworks units.
   f. The type of water treatment, equipment and capacity of units.
   g. Basic design data, pumping capacity, water storage, and flexibility of system operation.
   h. Adequacy of facilities concerning volume/quantity and pressures in the whole system.
   i. Cost estimate of the facilities and source of funds for the project.
   j. Sustainability and maintenance.

3. For subdivision having groundwater source, report on the estimated specific yield of the aquifer and other results of the pumping tests shall be submitted together with the borehole logs.
4. Two (2) sets of all plans and drawings shall be submitted which:
   a. Indicate location of all facilities pertinent to the specific project.
   b. If phase construction is anticipated, the overall plan shall be presented, though a portion of the construction is approve.
   c. A plan of the subdivision or other housing projects to served.

1.

e. Certification of the Potability of Drinking Water

No public water system shall be allowed to operate without a Certificate of Potability issued by the Secretary of Health or his duly authorized representative. This certificate is issued only after the required examinations are performed and the quality of water from the system meets the requirements of the Philippine National Standard for Drinking Water. The certificate is re-validated every after examinations based on the standard interval or frequency of sampling.
SECTION 11. TYPES OF WATER EXAMINATION REQUIRED
The following examinations are required for drinking water:

a. **Initial Examination** – the physical, chemical and bacteriological examinations of water from newly constructed systems or sources are required before they are operated and opened for public use. Examination of water for possible radioactive contamination should also be done initially.

b. **Periodic examination** – water from existing sources is subject to monthly Microbiological examination and semi-annual physical-chemical examination by DOH-accredited laboratories. Monitoring of radioactive contaminants shall be done only if there is significant input of radiation from the surrounding environment.

SECTION 12. SUBMISSION OF WATER SAMPLES FOR LABORATORY EXAMINATION

a. The examination of samples of drinking water shall be performed only in laboratories (private/government), which are duly licensed and accredited by the Department of Health. It is the responsibility of operators of water systems to submit to accredited laboratories water sample for examination in a manner and at intervals prescribed in the Philippine National Standards for Drinking Water.

b. Any person, firm or corporation desiring to establish, operate and maintain a water analysis laboratory shall apply to the Bureau of Research and Laboratories – Department of Health through the Regional Field Health Office. Approval of the accreditation shall be based on the prescribed requirements of the Department as stated in Administrative Order No. 31 Series 1979. Water laboratories maybe accredited for separate services like bacteriological, chemical, radiological, physical, biological or for a combination of two or more or all of these services.

SECTION 13. OTHER PROTECTIVE MEASURES
To protect drinking water from contamination, the following measures shall be observed:

a. Washing clothes or bathing within a radius of 25 meters from any well or other source of drinking water is prohibited.

b. No artesian, deep or shallow well, shall be constructed within 25 meters from any source of pollution.

c. No radioactive source or material shall be stored within a radius of 25 meters from any well or source of drinking water unless the radioactive source is adequately and safely enclosed by proper shielding.

d. No person charged with the management of a public water supply system shall permit any physical connection between its distribution system and that of any other water supply, unless the latter is regularly examine as to its quality by those in charge of the public supply to, which the connection is made and found to be potable.

e. The installation of a booster pump from the water distribution line of a water supply is prohibited.

SECTION 14. SPECIAL PROVISIONS

**Water Peddlers and Haulers**

1. **Sanitary Permit** – Any person firm or company engaged in water hauling and vending of water for human consumption shall secure a sanitary permit from city health officer based on the requirements of these rules and regulations.
2. **Health Certificate** – Water peddlers and haulers shall undergo physical and medical examination to obtain a health certificate from the city health officer, which shall be renewed every year. Water haulers and peddlers without health certificate or with expired health certificate shall be prohibited from water hauling and peddling.

3. **Source of Water** – Water peddlers/haulers are required to obtain water from sources with valid Certificate of Potability as specified in Section 4 of these implementing rules and regulations.

4. **Water Containers** – Water containers shall be made of plastic or tin materials and so designed to facilitate easy cleaning. The containers shall be cleaned and disinfected before they are filled with water and shall be provided with tight-fitting covers.

5. **Personal Hygiene** – All water peddlers and haulers shall be required to observe proper personal hygiene especially washing of hands with soap and water before working and after using the toilet.

**CHAPTER II – B**

**WATER SUPPLY**

**SECTION 15. SCOPE**

These supplemental rules and regulations shall apply to the following:
- a. Developmental of drinking supply system;
- b. Establishment and operation of retail water system (RWS) or refilling station;
- c. Source and product water quality monitoring;
- d. Drinking water in vending machines and dispensers and product water containers;
- e. Household and commercial water purification equipment, gadgets and devices; and
- f. Bulk water handling, storage and transportation.

**SECTION 16. DEFINITION OF TERMS**

As used in these supplemental implementing rules and regulations, the following term shall mean:

1. **AIR GAP** – a clear vertical space through the free atmosphere between the opening of any pie or faucet conveying water or waste to a tank, plumbing fixture receptor, or other device and the flood level rim of the receptacle. An air gap is used to prevent cross-connection between a water treatment device and possible source of wastewater thereby preventing a reverse flow of water from the sewer into the water supply system.

2. **APPROVE WATER LABORATORY** – a Department of Health accredited water analysis laboratory.

3. **APPROVED SOURCE** – source of the water whether it be from a spring, artesian well, drilled well, public or private water system, rain water reservoir, or any other source that has undergone a sanitary survey, issued site clearance, constructed, and the water sampled, analyzed, and found safe and potable, issued an operational permit and certificate of potability of drinking water.

4. **BACKFLOW** – flow of water in pipe or line in a direction opposite to the normal flow; often associated with back siphonage of the flow of used water into a potable water system.
5. **BACKFLOW PREVENTER** – a device or system installed in a water line to stop backflow from a non-potable source.

6. **BACKPRESSURE** – pressure, which creates resistance against the flow of water.

7. **BACK-PRESSURE BACKFLOW** – backflow due to an increased pressure above the supply pressure, which maybe due to pumps, boilers, gravity or other sources of pressure.

8. **BACKWATER VALVE** – A device installed in a system to prevent reverse flow.

9. **BULK WATER** – water in container of five gallons or more in volume coming from refilling station establishment or water intended for potable uses which is transported via tanker truck or equivalent means from one area to another for the purpose of treatment and/or packaging and human consumption.

10. **CERTIFICATE OF POTABILITY OF DRINKING WATER** – A certification issued by the City Health Officer or his duly authorized representative certifying the potability and safeness of source drinking water for human consumption based on the Philippine National Standards for Drinking Water.

11. **CROSS-CONNECTION** – any connection or arrangement, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptacle, equipment or device, through which it may be possible for non-potable, used, unclean, polluted and contaminated water, or other substances, to enter into any part of such potable water system under any condition.

12. **DEIONIZATION** – the removal of the ionized minerals and salts (both organic and inorganic), from a solution by a two-phases ion-exchange procedure. First, positively charge ions are removed by cation exchange resin in exchange for a chemically equivalent amount on hydrogen ions. Second, negatively charged ions are removed by an anion exchange resin for a chemically equivalent amount of hydroxide ion. The hydrogen and hydroxide ions introduced in this process unite to form water molecules. The term is often used interchangeably with demineralization.

13. **DISTILLATION** – the process of separating organic and inorganic solids from water by evaporation (vaporization) followed by cooling and condensation.

14. **ESTABLISHMENT** – a collective term construed to include buildings and premises where retail water system product water or refilling station product water is being processed.

15. **FILTER** – device installed as part of a water treatment system through which water flows for the purpose of removing turbidity, unpleasant taste, odor, iron, or color. Filters can be loosed media beds, in tanks or cartridge type devices. Filters can be used for mechanical, absorptive, neutralizing, or catalyst/oxidation filtration process.

16. **FILTRATION** – the process of separating solids from a liquid by means of a porous substance such as a permeable fabric or membrane or layer of inert media.

17. **GOOD MANUFACTURING PRACTICE (GMP)** – the detail requirements governing plant construction and design, sanitary facilities and operation, equipment design and construction, production and process controls specific to the production and purification of water.

18. **HORIZONTAL PIPE** – any pipe or fitting which is installed in a horizontal position or which makes an angle of less than forty-five (45) degrees with the horizontal.

19. **HYDROSTATIC PRESSURE** – a measurement of structural strength and ability to hold water pressure.
20. **ION EXCHANGE** – the reversible process in which ions are release from an insoluble permanent material in exchange for other ions in a surrounding solution; the direction of the exchange depends upon the affinities of ion exchange for the ions present and the concentration of the ions in the solution.

21. **POINT-OF-ENTRY (POE)** – a water treatment device that is installed at the main inlet to a building or mobile vehicle and acts as centralized water treatment.

22. **POINT-OF-USE (POU)** – a water treatment system designed to connect at the actual point-of-use for water; countertop or under sink treatment system.

23. **PRESSURE** – the normal force exerted by a homogenous liquid or gas, per unit area, on the wall of the container.

24. **STATIC PRESSURE** – the pressure existing without any flow.

25. **RESIDUAL PRESSURE** – the pressure available at the fixture or water outlet after allowance is made for pressure drop due to friction loss, head, meter, and other losses in the system during maximum demand periods.

26. **PRESSURE BALANCING VALVE** – a mixing valve that senses incoming hot and cold water pressures and compensates for fluctuations in either, to stabilize outlet temperature.

27. **REFILLING STATION** – another term for a retail water system (RWS) establishment.

28. **REFILLED WATER OR PRODUCT WATER** – source water that has undergone additional processing and the product of multi-stage purification technology (filtration, ion-exchange treatment, post carbon polishing, distillation, ultraviolet sterilization, reverse osmosis, air filtration, ozonation or other DOH-approved technology) and complying with the standard parameters and values for refilled water quality of retail water system or refilling station.

29. **REFILLED WATER CONTAINER** – food-grade quality container for the containment of processed drinking water from retail water system or refilling station establishment.

30. **REFILLED WATER DISPENSER** – an equipment used for dispensing processed drinking water either as a coin-operated machine, a monetary driver equipment or manually operated machine.

31. **REGULATING EQUIPMENT** – includes all valves and controls used in a plumbing system, which are required to be accessible or readily accessible.

32. **RESIDUAL** – the amount of a specific material remaining in water following a water treatment process. It may refer to material as the result of incomplete removal such as hardness leakage, or to a substance meant to remain in the treated water such as residual chlorine.

33. **RETAIL WATER SYSTEM (RWS)** refilled water being sold and replace in the refilled water container or in customer's in refilling station.

34. **REVERSE OSMOSIS OR HYPER-FILTRATION** – a process for the removal of dissolve ions from water, in which pressure is used to force the water through a semi-permeable membrane, which will transmit the water but reject most of the other suspended and dissolved materials. It is called reverse osmosis because mechanical pressure is used to force the water flow in the direction that is the reverse of natural osmosis, namely form the dilute to the concentrated solution.
35. SANITARY CLEARANCE – a clearance issued by the City Health Office to food or water delivery vehicles, mobile water tankers and similar vehicles, including its appurtenances that they comply with the design, construction, specification and other requirements of the Department.

36. SANITARY PERMIT – the permission or certification in writing of the city health officer or in the absence, the chief or head of the sanitation division/section/unit that the establishment complies with the existing minimum sanitation requirements upon evaluation or inspection conducted in accordance with Presidential Decree Nos. 522 and 856 and its implementing rules and regulation, and local ordinances.

37. SOURCE WATER – water from approved source that is conveyed or distributed to the refilling station through the public or private water mains or water tankers, containers or reservoir.

38. ULTRAVIOLET LIGHT STERILIZATION – the process of killing active bacteria and spores in water with the use of ultraviolet ray.

39. VERMIN – a group of insects such as fleas, mosquitoes, cockroaches, lice, bedbugs, or small animals such as mice and rats that are vector of disease.

40. VERMIN ABATEMENT PROGRAM – a series of preventive and control procedures and activities in the control of vermin.

41. WATER HAMMER ARRESTOR – a device used to absorb hydraulic shock, either of the air chamber or mechanical device design.

42. WATER MAIN (STREET MAIN) – a water supply pipe for public or community use.

43. WATER-DISTRIBUTING PIPE – in a building or premises, a pipe, which conveys potable water from the building supply pipe to the plumbing fixtures and other water outlets.

44. WATER PURIFICATION DEVICE – any DOH-certified equipment, apparatus, device or gadget whose purpose is to purify water, either for household, commercial or other uses.

SECTION 17. SANITARY REQUIREMENTS FOR THE DEVELOPMENT OF DRINKING WATER SUPPLY SYSTEM

a. DRINKING WATER SITE CLEARANCE

1. REQUIREMENTS
   Persons or entities intending to develop drinking water supply system shall submit the following initial requirements to the City Health Office.
   
a. Application letter addressed to the city health officer or duly accomplished application form.
   b. For waterworks, a copy of the water permit issued by the National Water Resources Board (NWRB).

2. SANITARY SURVEY
   A sanitary survey shall be conducted by the city health office on all proposed water supply source location. It shall be done under the supervision of a Sanitary Inspector. Such sanitary survey (EHS Form No. 121) shall be pre-requisite for issuance of the Drinking Water Site Clearance.
3. ISSUANCE OF THE DRINKING WATER SITE CLEARANCE
After the result of the sanitary survey has been evaluated and found to be satisfactory, a Drinking Water Site Clearance (EHS Form No. 122) shall be issued by the Local Health authority as recommended by the city health officer. The amount of fees for the clearance shall be P100.00.

b. CERTIFICATE OF POTABILITY OF DRINKING WATER

1. REQUIREMENTS
   The issuance of the Certificate of Potability of Drinking Water shall be based on the following:
   a. Results of the water sampling and testing conducted by a DOH-accredited water analysis laboratory.
   b. Reports and recommendation of the Local Drinking Water Quality Monitoring Committee (LDWQMC).

2. ISSUANCE OF THE CERTIFICATE OF POTABILITY OF DRINKING WATER (CPDW).
   a. The city health officer is hereby authorized to issue Certificate of Potability of Drinking Water.
   b. The frequency of the evaluation and re-validation of the CPDW shall be in accordance with the standard interval or frequency of sampling specified in the Philippine National Standards for Drinking Water.
   c. Fees for the certification shall be P 100.00.

3. GROUNDS FOR REVOCATION OF THE CERTIFICATE OF POTABILITY OF DRINKING WATER.
   a. Non-compliance with maximum contaminant level set by the Philippine National Standards for Drinking Water as shown in the result of most recent water analysis.
   b. The result of the water analysis was not evaluated and recommended by the Local Drinking Water Quality Monitoring Committee.
   c. The laboratory where the water sample was submitted and analyzed is not a DOH-accredited laboratory.
   d. Other compelling reasons (e.g. false or misleading results of water analysis, etc.)
   e. The Operational Permit was revoked/suspended earlier by the Department.

c. REQUIRED MEASURES FOR THE OPERATOR OF THE WATER SYSTEM IN CASE WATER IS FOUND OR DECLARED UNSAFE FOR DRINKING.
The operator of the water supply system shall:
   1. Immediately stop the operation of the part of the water distribution system that was detected to be hazardous for human consumption.
   2. Immediately inform the Department and the Local Health Office of the condition of the water system. In such cases, the city health office shall immediately inform the local health authority who shall convene the Local Drinking Water Quality Monitoring Committee. The committee shall announce to the public:
      a. The status of the drinking water and the precautionary measures that should be done by the public during the crisis.
b. The limited usage of the water being supplied (e.g. for bathing, washing clothes, watering plants, washing cars, etc.).

3. Refrain from authorized declaration of the quality of the drinking water to the public without any prior clearance from the Department or Local Drinking Water Quality Monitoring Committee.

d. DISTRIBUTION LINES, DELIVERY RETENTION
Refer to Code on Sanitation of the Philippines (P.D. 856)

SECTION 18. SANITARY REQUIREMENTS FOR THE OPERATION OF RETAIL WATER SYSTEM OF REFILLING STATION

a. SANITARY PERMIT REQUIREMENTS
No person or entity shall operate a retail water system (RWS) or refilling station for commercial purposes without securing a Sanitary Permit from the city health office. The following documents shall be submitted as requirements for the issuance of the permit:

1. Operational Permit and Certificate of Potability of Drinking Water for retail water system or refilling station where raw water is sourced from private water supply system.

2. Certificate of Potability of Drinking Water for retail water system or refilling station where raw is sourced from public water supply system. However, validation water samples shall be required to confirm that there is no cross-connection in the main lines and/or seepage from the water main.

3. Plans and specification for the complete multi-stage water purification design of the plant prepared by a privately practicing licensed sanitary engineer (R.A. 1364 and P.D. 1096) shall be submitted with each application for a sanitary permit. Such plans and specifications shall be subject for review and approval by the city health officer as recommended by a government employed licensed sanitary engineer.

4. Any additional construction, alteration or renovation in the establishment of any alteration, addition or deletion or any changes in the water treatment process, which is not indicated in the approved as-built design, shall require a new sanitary permit. Violation of this provision shall be a ground for the immediate revocation or suspension of the sanitary permit.

b. APPLICATION OR RENEWAL OF SANITARY PERMIT
1. The application or renewal of the sanitary permit shall be filed with the city health office. Existing establishment operating before the issuance of these rules and regulations shall be evaluated by the city health office and shall be required to conform to these rules and regulations before the renewal or issuance of the sanitary permit.

2. The sanitary permit shall be issued only upon compliance to at least a satisfactory rating of the establishment and its product quality, utilizing the sanitary inspection form.

3. Fees shall be paid to the local government unit upon application or renewal of sanitary permit.

4. Fees for the application of Sanitary Permit shall be P100.00 which shall be paid by new applicants to the local government unit of Alaminos City upon application of sanitary permit.
5. Fees for the renewal of Sanitary Permit shall be P100.00 which shall be paid to the local government unit of Alaminos City upon the renewal of Sanitary Permit.

c. NOTING OF PERMIT – means that within a number of days after any change in the ownership or occupancy of any establishment, the new occupant shall apply to the city Health Office to have such change noted in the records and permit certificate, which he/she shall produce for the purpose.

<table>
<thead>
<tr>
<th>Notice Type</th>
<th>Time Limit</th>
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<tbody>
<tr>
<td>1st notice</td>
<td>five (5) working days</td>
</tr>
<tr>
<td>2nd notice</td>
<td>five (5) working days</td>
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<tr>
<td>3rd and final notice</td>
<td>five (5) working days</td>
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</tbody>
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If there is a change in ownership of the establishment, the new owner shall apply at the city health office within fourteen (14) working days to have such change noted in the records and sanitary permit and shall pay the corresponding fee in respect of such noting.

d. VALIDITY – The sanitary permit shall be valid on the day of issuance until the last day of December of the same year, unless otherwise revoked, and shall be renewed every beginning of the year, thereafter.

e. REVOCATION/SUSPENSION – upon the recommendation of the city health officer, the sanitary permit shall be suspended or revoked by the local health authority upon violation of any sanitary rules and regulations.

f. POSTING – The Sanitary Permit shall be posted in a conspicuous place of the establishment for public information and shall be available for inspection by authorized health and other regulatory personnel.

g. RECORD SANITARY PERMIT

1. The city health office shall keep a record of all establishments that have been issued sanitary permit and renewal thereof.

2. The record shall in every case show the following:
   a. The name and address of the holder of the sanitary permit;
   b. The location of the establishment;
   c. The nature/kind of business for which the permit has been issued;
   d. The registered business name of the establishment;
   e. The date the first permit was issued and the dates of any renewal thereof;
   f. Any alteration, renovation, additional construction in the establishment;
   g. Any alteration, addition, deletion or any change in the water purification process;
   h. Every change of management of the establishment since the first permit was issued;
   i. Sanitary conditions under which the permit was issued or any renewal thereof granted; and
   j. Any revocation of the sanitary permit.

3. The record shall be available at all reasonable times for inspection by any authorized officer of the Department or the Local government unit concerned.