

TRANSMITTAL LETTER

To: Beth O'Donnell
 Public Service Commission
 P.O. Box 615
 Frankfort, KY 40602

Date: August 8, 2007

RE: Southeast Daviess County Water District
 Masonville Community Elevated Water Storage Tank
 Request for Rate Surcharge & for Certificate of
 Public Convenience & Necessity

We are sending you: Attached/Enclosed Federal Express
 Hand Delivered Faxed

The following items:

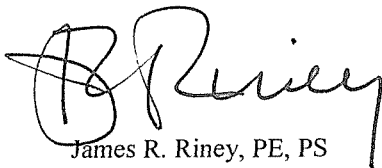
- | | | |
|---|---|--|
| <input type="checkbox"/> Plans | <input type="checkbox"/> Specifications | <input type="checkbox"/> Technical Drawing |
| <input type="checkbox"/> Survey Plat | <input type="checkbox"/> Description | <input type="checkbox"/> Requested Information |
| <input type="checkbox"/> Drainage Information | <input type="checkbox"/> Statement | <input type="checkbox"/> Shop Drawings |

<u>Item No.</u>	<u>Number of Copies</u>	<u>Description</u>
1	1	KY Division of Water Approval Letter

Transmittal Information Forwarded:

- | | |
|--|---|
| <input type="checkbox"/> For your review/comment | <input type="checkbox"/> For your action |
| <input checked="" type="checkbox"/> For your information | <input type="checkbox"/> Approved as submitted |
| <input type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted |
| <input type="checkbox"/> For your approval | <input type="checkbox"/> Returned for revisions |
| <input type="checkbox"/> Per your request | <input type="checkbox"/> Additional information requested |
| <input type="checkbox"/> For signature | <input type="checkbox"/> Discuss with me |
| <input checked="" type="checkbox"/> For your file | <input type="checkbox"/> |

Comments: PSC Case No. 2007-00352


 James R. Riney, PE, PS

Copy: Bill Higdon

RECEIVED
 AUG 10 2007
 PUBLIC SERVICE
 COMMISSION



REC'D AUG 08 2007

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

Ernie Fletcher
Governor

Division of Water
14 Reilly Road
Frankfort, Kentucky 40601-1190
www.kentucky.gov

Teresa J. Hill
Secretary

August 5, 2007

William Higdon,
Southeast Daviess County Water District
3400 Bittel Road
Owensboro, KY 42301

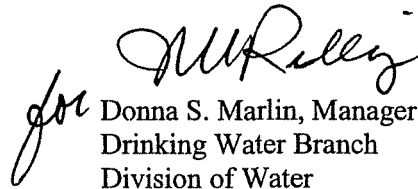
RE: Daviess County
AI No: 33865
DW No: 0300387-07-003
Masonville Community Elevated Water Storage Tank
Activity ID: APE 20070003

Dear Mr. Highdon:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 2,400 feet of 8-inch DIP water line and 500,000 gallon elevated water storage tank. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Solitha Dharman, P.E., at (502) 564-2225, extension 572.

Sincerely,


Donna S. Marlin, Manager
Drinking Water Branch
Division of Water

DSM: SWD
Enclosures

C: James R. Riney, P.E., P.L.S., HRG
Daviess County Health Department
Public Service Commission

Distribution-Major Construction

SE Daviess Co Water District

Subject Item Inventory

Activity ID No.: APE20070003

Subject Item Inventory:

ID	Designation	Description
AIO033865		
PORT18	Water Line Extension	2,400 feet of 8-inch DIP
STOR1	Water Storage Tank	500,000 gallon elevated water tank

Subject Item Groups:

ID	Description	Components
GACT18	500,000 gallon water Storage Tank	STOR1 500,000 gallon elevated water tank
		PORT18 2,400 feet of 8-inch DIP

KEY

ACTV = Activity

AREA = Area

EQPT = Equipment

PERS = Personnel

STOR = Storage

TRMT = Treatment

AIOO = Agency Interest

COMB = Combustion

MNPT = Monitoring Point

PORT = Transport

STRC = Structure

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

Activity ID No.: APE20070003

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GACT18 (Masonville Community Tank) 500,000 gallon water Storage Tank:

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new or relocated water line(s). Take samples at connection points to existing lines, at 1 mile intervals, and at dead ends without omitting any branch of the new or relocated water line. Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7), 401 KAR 8:150 Section 4, Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
M-2	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new storage structure(s). With at least 1 sample taken at least 24 hours after the first construction complete sample(s), take 2 or more samples from the yard hydrant, the outlet piping from the storage structure, or a sample tap directly connected to the storage structure. Sample bottles shall be clearly identified as "special" construction tests. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:150 Section 4] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

Submittal/Action Requirements:

Coliform:

Condition No.	Condition
S-1	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet: Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]

Condition No.	Condition
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S-2 For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

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GACT18 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	Additional Limitations: Chlorinated water resulting from disinfection of project components shall be disposed in a manner which will not violate 401 KAR 5:031. [401 KAR 8:020 Section 2(20)]

Condition No.	Condition
T-2	This project has been permitted under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies. Further, this permit does not address the authority of the permittee to provide service to the area to be served. [401 KAR 8:100 Section 1(7)]
T-3	Unless construction of this project is begun within 1 year from the issuance date of this permit, the permit shall expire. If requested prior to the permit expiration, an official extension from the Division of Water may be granted. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Drinking Water Branch at 502/564-3410. [401 KAR 8:100 Section 1(9)]
T-4	During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)]

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

Activity ID No.: APE20070003

PORT18 (Water Line Extension) 2,400 feet of 8-inch DIP:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a Depth \geq 6 in below the bottom of the pipe. [Recommended Standards for Water Works 8.5.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-2	Depth	All water lines shall be covered to a Depth \geq 30 in to prevent freezing. [Recommended Standards for Water Works 8.5.3, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Diameter	All new and existing water lines serving fire hydrants or where fire protection is provided shall have Diameter \geq 6 in. [Recommended Standards for Water Works 8.1.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Distance	Water lines shall have a sufficient quantity of valves so that inconvenience and sanitary hazards will be minimized during repairs. A valve spacing Distance \leq 1.0 mi should be utilized. [Recommended Standards for Water Works 8.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-5	Distance	Hydrant drains shall not be connected to sanitary sewers or storm drains and shall be located a Distance $>$ 10 ft from sanitary sewers and storm drains. [Recommended Standards for Water Works 8.3.4] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-6	Distance	Except when not practical, water lines shall be laid a horizontal Distance \geq 10 ft from any existing or proposed sewer. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, water lines may be installed closer to a sewer provided that the water lines shall be laid in a separate trench or on an undisturbed shelf located on one side of the sewer at such an elevation that the bottom of the water line is at least 18 inches above the top of the sewer. [Recommended Standards for Water Works 8.6.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

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PORT18 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-7	Distance	<p>When water lines and sewers cross,</p> <ol style="list-style-type: none"> 1) water lines shall be laid such that either a) the top of the water line is a vertical Distance \geq 18 in below the bottom of the sewer line or b) the bottom of the water line is a vertical Distance \geq 18 in above the top of the sewer line, 2) 1 full length of the water pipe shall be located so that both joints of the water pipe will be as far from the sewer as possible, and 3) special structural support for the water and sewer pipes may be required. [Recommended Standards for Water Works 8.6.3] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable. <p>The open end of an air relief pipe from automatic valves shall be extended a Distance \geq 1.0 ft above grade and provided with a screened, downward-facing elbow. The pipe from a manually operated valve shall be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible. [Recommended Standards for Water Works 8.4.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.</p>
L-8	Distance	<p>Pipes shall not be installed unless all points of the distribution system remain designed for ground level Pressure \geq 20 psi under all conditions of flow. [Recommended Standards for Water Works 8.1.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>
L-9	Pressure	<p>Pressure \geq 30 psi must be available on the discharge side of all meters. [401 KAR 8:100 Section 4(2)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.</p>
L-10	Pressure	<p>New or relocated water lines shall be thoroughly-disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect the new or relocated lines use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection \geq 25 ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform monitoring applicable to the line does not show the presence of Coliform.</p> <p>If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>
L-11	Residual Disinfection	<p>Residual Disinfection \geq 25 ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform monitoring applicable to the line does not show the presence of Coliform.</p> <p>If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>

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PORT18 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
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L-12	Velocity	Each blow-off or fire hydrant shall be sized so that Velocity ≥ 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
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Monitoring Requirements:

Condition No.	Parameter	Condition
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M-1	leaks	The presence or absence of leaks monitored by physical testing as needed shall be determined in all types of installed pipe. Pressure testing and leakage testing shall be in accordance with the latest edition of AWWA Standard C600. [Recommended Standards for Water Works 8.5.5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
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Narrative Requirements:

Asbestos (Friable):

Condition No.	Condition
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T-1	Asbestos (Friable):
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If the existing water line to be tapped is asbestos concrete, then the contractor shall conform to OSHA regulations governing the handling of hazardous waste during the process of tapping the asbestos concrete line. Pieces of asbestos concrete resulting from the tap shall be double bagged, placed in a rigid container and disposed of in an approved landfill. [401 KAR 8:100 Section 1(7)]

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PORT18 (continued):

Narrative Requirements: Additional Limitations:

Condition No.	Condition
T-2	<p>Additional Limitations: Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1]</p>
T-3	<p>Additional Limitations: Pipes, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA or NSF (if such standards exist). [Recommended Standards for Water Works 8.0.1]</p>
T-4	<p>Additional Limitations: At high points in water lines, where air can accumulate, provisions shall be made to remove the air by means of hydrants or air relief valves. Automatic air relief valves shall not be used in situations where manhole or chamber flooding may occur. [Recommended Standards for Water Works 8.4.1]</p>
T-5	<p>Additional Limitations: All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.5.4]</p>
T-6	<p>Additional Limitations: A fire hydrant or blow-off shall be required at the end of each dead end line. [Recommended Standards for Water Works 8.1.6]</p>
T-7	<p>Additional Limitations: For each fire hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]</p>
T-8	<p>Additional Limitations: No flushing device, blow-off, or air relief valve shall be directly connected to any sewer. Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any storm drain or sanitary sewer. Such chambers, pits or manholes shall be drained to absorptions pits underground or to the surface of the ground where they are not subject to flooding by surface water. [Recommended Standards for Water Works 8.1.6, Recommended Standards for Water Works 8.4.3]</p>
T-9	<p>Additional Limitations: If water lines are installed or replaced in areas of organic contamination or in areas within 200 ft of underground or petroleum storage tanks, ductile iron or other nonpermeable materials shall be used in all portions of the water line installation or replacement. [401 KAR 8:100 Section 1(5)(d)6, Recommended Standards for Water Works 8.0.2]</p>

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PORT18 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-10	<p>Additional Limitations: No water pipe shall pass through or come in contact with any part of a sewer manhole. [Recommended Standards for Water Works 8.6.6]</p>
T-11	<p>Additional Limitations: If a fire sprinkler system is to be installed, a double check detector assembly approved for backflow prevention shall be utilized. The double check detector assembly of the system shall be accessible for testing. [401 KAR 8:100 Section 1(7)]</p>
T-12	<p>Additional Limitations: If water lines cross a stream or wetland, the provisions in the attached Water Quality Certification shall apply. If you have any questions please contact the Water Quality Certification Supervisor of the Water Quality Branch at (502) 564-2225. [401 KAR 8:100 Section 1(7)]</p>

Subfluvial Pipe Crossings:

Condition No.	Condition
T-13	<p>Subfluvial Pipe Crossings: For subfluvial pipe crossings, a floodplain construction permit will not be required pursuant to KRS 151.250 if the following requirements of 401 KAR 4:050 Section 2 are met.</p> <ol style="list-style-type: none">1) No material may be placed in the stream or in the flood plain of the stream to form construction pads, coffer dams, access roads, etc. during construction of pipe crossings.2) Crossing trenches shall be backfilled as closely as possible to the original contour.3) All excess material resulting from construction displacement in a crossing trench shall be disposed of outside the flood plain.4) For erodible channels, there shall be at least 30 inches of backfill on top of all pipe or conduit points in the crossing.5) For nonerodible channels, pipes or conduits in the crossing shall be encased on all sides by at least 6 inches of concrete with all pipe or conduit points in the crossing at least 6 inches below the original contour of the channel. [401 KAR 8:100 Section 1(7)]

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PORT18 (continued):

Narrative Requirements:

Subfluvial Pipe Crossings:

Condition No.	Condition
T-14	<p data-bbox="591 1634 621 1932">Subfluvial Pipe Crossings: For subfluvial pipe crossings greater than 15 feet in width,</p> <ol data-bbox="650 683 707 1932" style="list-style-type: none"><li data-bbox="650 795 680 1932">1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and<li data-bbox="680 683 710 1932">2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair. <p data-bbox="710 1789 740 1932">Valves shall</p> <ol data-bbox="740 1540 796 1932" style="list-style-type: none"><li data-bbox="740 1647 769 1932">a) be easily accessible,<li data-bbox="769 1540 799 1932">b) not be subject to flooding, and <p data-bbox="799 136 860 1932">c) if closest to the supply source, be in a manhole with permanent taps made on each side of the valve to allow insertion of a small meter to determine leakage and for sampling purposes. [Recommended Standards for Water Works 8.7.2]</p>

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STOR1 (Water Storage Tank) 500,000 gallon elevated water tank:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	High and low level Depth ≥ 30 ft apart should not be allowed in storage structures providing pressure to a distribution system. [Recommended Standards for Water Works 7.3.2] This requirement is applicable during the following months: All Year. Statistical basis: Maximum.
L-2	Distance	To prevent excessive erosion of storage structure foundations, the overflow and main drain shall either a) discharge to concrete or other stable surfaces (splash pads) which extend a Distance ≥ 10 ft away from the base of the storage structure or b) discharge directly into a crushed stone pit that is at least 2' x 2' x 2' which is a Distance ≥ 10 ft away from the base of the storage structure. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Height	Tanks shall have an overflow which is a) brought down to a Height ≥ 12 and ≤ 24 in above the ground surface, b) of sufficient diameter to permit waste of water in excess of the filling rate, c) open downward, d) screened with twenty-four mesh noncorrodible screen installed within the pipe at a location least susceptible to damage by vandalism, and e) when not internal, e) i) located on the outside of the tank so that any discharge is visible, when internal, e) ii) located in the access tube. [Recommended Standards for Water Works 7.0.7] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-4	Height	Tanks shall have manholes that are a) framed a Height ≥ 4 in above the surface of the roof at the opening and b) fitted with a solid watertight cover which overlaps the framed opening and extends down around the frame at least 2 inches. Manholes should be hinged at one side and shall have a locking device. [Recommended Standards for Water Works 7.0.8] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

Activity ID No.: APE20070003

STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	<p>Additional Limitations: The materials and designs used for storage structures shall provide stability and durability as well as protection for the quality of the stored water. Steel structures shall follow the AWWA standards wherever they are applicable. Other materials of construction are acceptable when properly designed to meet the requirements in this permit. [Recommended Standards for Water Works 7.0]</p>
T-2	<p>Additional Limitations: The safety of employees must be considered in the design of any tank. The design of tanks shall</p> <ol style="list-style-type: none">meet or exceed the minimum requirements of pertinent safety laws and regulations in the areas where the tanks are constructed,include ladders, ladder guards and balcony railings (where applicable),locate entrance hatches in safe places,provide railings or handholds where persons must transfer from an access tube to the water compartment, andconsider confined space entry requirements. <p>Additionally, if tanks have riser pipes over 8 inches in diameter, the tanks shall have protective bars over the riser openings inside of the tank. [Recommended Standards for Water Works 7.0.12]</p>
T-3	<p>Additional Limitations: Storage structures shall be designed with reasonably convenient access to the interior for cleaning and maintenance. Where space permits, at least 2 manholes shall be provided above the waterline at each water compartment. [Recommended Standards for Water Works 7.0.8]</p>
T-4	<p>Additional Limitations: Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4]</p>
T-5	<p>Additional Limitations: All storage structures and their appurtenances, especially the riser pipes, overflows, and vents, shall be designed to prevent freezing. [Recommended Standards for Water Works 7.0.13]</p>
T-6	<p>Additional Limitations: Tanks shall be constructed with no openings except properly constructed vents, manholes, overflows, risers, drains, control ports, and piping for inflow and outflow. Any pipes running through the roof or sidewall must be welded or properly gasketed. [Recommended Standards for Water Works 7.0.10]</p>

Distribution-Major Construction

SE Daviess Co Water District
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Activity ID No.: APE20070003

STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-7	<p>Additional Limitations: All finished water storage structures shall have suitable watertight roofs and sidewalls which exclude birds, animals, insects, and excessive dust. [Recommended Standards for Water Works 7.0.3, Recommended Standards for Water Works 7.0.10]</p>
T-8	<p>Additional Limitations: The roof of each storage structure shall be well drained. Downspout pipes shall not enter or pass through storage structures. Parapets or similar structures which would tend to hold water and snow on a storage structure roof shall not be approved unless adequate waterproofing and drainage are provided. [Recommended Standards for Water Works 7.0.11]</p>
T-9	<p>Additional Limitations: Storage structures shall be designed so they can be isolated from the distribution system and drained for cleaning or maintenance without necessitating loss of pressure in the distribution system. [Recommended Standards for Water Works 7.3.2, Recommended Standards for Water Works 7.0.5]</p>
T-10	<p>Additional Limitations: Storage structure drains shall discharge to the ground surface at a drainage structure inlet or splash plate. [Recommended Standards for Water Works 7.3.2, Recommended Standards for Water Works 7.0.7]</p>
T-11	<p>Additional Limitations: No drain on a storage structure may have a direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.0.5, Recommended Standards for Water Works 7.0.7, Recommended Standards for Water Works 7.3.2]</p>
T-12	<p>Additional Limitations: Main drains from storage structures shall have a twenty-four mesh noncorrodible screen installed within the drain pipe at a location least susceptible to damage by vandalism. [401 KAR 8:100 Section 1(7)]</p>
T-13	<p>Additional Limitations: Storage structures shall be designed to facilitate turn over of water. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.6]</p>
T-14	<p>Additional Limitations: Storage structures shall have sufficient capacity, as determined from engineering studies, to meet domestic demands. Additionally, if fire protection is provided, capacity shall also be sufficient to meet fire flow demands. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.1]</p>

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STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-15	<p>Additional Limitations: Storage structure discharge pipes shall be located in a manner that will prevent the flow of sediment into the distribution system. Additionally, removable silt stops should be provided. [Recommended Standards for Water Works 7.0.15]</p>
T-16	<p>Additional Limitations: Appropriate sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriologic and chemical analyses. [Recommended Standards for Water Works 7.0.19]</p>
T-17	<p>Additional Limitations: Storage structures shall be vented. Overflows shall not be considered as vents. Open construction between the sidewall and roof is not permitted. Vents shall</p> <ul style="list-style-type: none"> a) prevent the entrance of rainwater, b) exclude birds and animals, and c) exclude insects and dust (as much as compatible with effective venting). <p>Vents may use four-mesh noncorrodible screen. [Recommended Standards for Water Works 7.0.9]</p>
T-18	<p>Additional Limitations: Adequate controls shall be provided to maintain levels in storage structures. The level controls shall be acceptable to the Division of Water. Level indicating devices should be provided at a central location. Overflow and low-level warnings or alarms should be located at places in the community where they will be under responsible surveillance 24 hrs a day. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.3.3]</p>
T-19	<p>Additional Limitations: Storage structures have a catwalk over the water; the catwalk floor shall be solid with raised edges so that shoe scrapings and dirt will not fall into the water. [Recommended Standards for Water Works 7.0.14]</p>
T-20	<p>Additional Limitations: Proper protection shall be given to metal surfaces by</p> <ul style="list-style-type: none"> a) paints or other protective coatings and/or b) cathodic protective devices. [Recommended Standards for Water Works 7.0.17]

Distribution-Major Construction

SE Daviess Co Water District
Facility Requirements

Activity ID No.: APE20070003

STOR1 (continued):

Narrative Requirements: Additional Limitations:

Condition No.	Condition
T-21	<p>Additional Limitations: If cathodic protection is utilized,</p> <ul style="list-style-type: none">a) competent technical personnel should design and install the protection andb) a maintenance contract should be provided. [Recommended Standards for Water Works 7.0.17]
T-22	<p>Additional Limitations: If the interior of the storage structure is coated or lined, the coating or lining shall be of a type approved by the Division of Water for use in contact with potable water. [401 KAR 8:020 Section 2(19)]</p>
T-23	<p>Additional Limitations: Paints and coatings</p> <ul style="list-style-type: none">a) shall meet NSF standard 61,b) shall be acceptable to the Division of Water,c) shall be properly applied and cured, andd) shall not transfer any substance to the water which will be toxic or cause tastes or odors (following curing). <p>Wax coatings shall not be used in any storage structure and must be completely removed before using other paints or coatings in an existing storage structure. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.17]</p>

Distribution-Major Construction

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STOR1 (continued):

Narrative Requirements: Additional Limitations:

Condition No.	Condition
T-24	<p>Additional Limitations: New water storage structures shall be thoroughly disinfected (in accordance with AWWA Standard C652) upon completion of construction and before being placed into service. To disinfect new storage structures</p> <ol style="list-style-type: none">1) remove all scaffolding, planks, tools, rags, and other items that are not part of the structural or operational facilities of the storage structure,2) clean thoroughly by sweeping, scrubbing, using high-pressure water jets, or some equivalently effective means, and3) use chlorine or chlorine compounds as subsequently described. <p>Finalize disinfection by</p> <ol style="list-style-type: none">a) chlorination method 1, described in detail at AWWA Standard C652 Section 4.3.1,b) chlorination method 2, described in detail at AWWA Standard C652 Section 4.3.2, orc) chlorination method 3, described in detail at AWWA Standard C652 Section 4.3.3. <p>See the following conditions for abbreviated descriptions of the methods. Following the finalization of disinfection, place storage structures into service if, and only if, Coliform monitoring applicable to the storage structure, does not show the presence of Coliform. If Coliform is detected, flush the tank and repeat Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the tank has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [Recommended Standards for Water Works 7.0.18]</p>

Condition No.	Condition
T-25	<p>If applicable, chlorination method 1 generally requires</p> <ol style="list-style-type: none">a) filling a storage structure to the overflow level with water providing a free chlorine Residual Disinfection \geq 10 ppm andb) i) completely draining the storage facility and refilling orb) ii) otherwise reducing (in accordance with method 1) the free chlorine residual to a level appropriate for distribution. [Recommended Standards for Water Works 7.0.18]
T-26	<p>If applicable, chlorination method 2 generally requires</p> <ol style="list-style-type: none">a) scrubbing or spraying the water-contact surfaces of a storage structure with a water solution having an available chlorine concentration = 200 ppm andb) purging of the strong chlorine solution and filling to the overflow level. [Recommended Standards for Water Works 7.0.18]

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STOR1 (continued):

Narrative Requirements:

Condition No.	Condition
T-27	If applicable, chlorination method 3 generally requires a) filling a storage structure to approximately 5% of the total storage volume with water having an available chlorine concentration of 50 ppm, b) continued filling of the storage structure to the overflow level with normal potable water, and c) purging the storage structure so that various disinfection by-products do not reach water consumers. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:100 Section 1(7)]