CLARK COUNTY FIRE DEPARTMENT
Fire Prevention Bureau
575 E. Flamingo Road, Las Vegas, NV 89119
(702) 455-7316 FAX (702) 455-7347

Permit Type: 105.7.25
Control Number: A.0
Effective Date: 11/15/11

TITLE: WATER TANKS FOR PRIVATE FIRE PROTECTION

SCOPE: Clark County Fire Department requirements for the submittal and approval of the design, construction, installation and maintenance of water tanks that supply water for private fire systems which are installed in accordance NFPA 22 and the Clark County Fire Code as adopted and amended. Submittals include the following: Gravity tanks, suction tanks, pressure tanks and embankment-supported coated fabric suction tanks; towers; foundations; pipe connections and fittings; valve enclosures; tank filling; and protection against freezing.

For new work in existing buildings, see the "New Work in Existing Buildings" guideline.

Tanks shall be periodically tested, inspected and maintained according to NFPA 25.

PURPOSE: To standardize plan/permit requirements required by the Fire Department in accordance with the Clark County Fire Code. Permits are valid through the duration of construction. Work must commence within 180 days, and remain active with no period of inactivity exceeding 180 days, or the permit becomes invalid.

DEFINITIONS:

ASSESSOR'S PARCEL NUMBER (APN): A unique number assigned to each property by the Clark County Assessor's office.

NFPA: National Fire Protection Association is a nationally recognized code-developing organization.

PERMIT FEES:

Permit fees shall be assessed in accordance with the Permit Fee Schedule as adopted in the Clark County Fire Code. For applications that are expedited, additional fees shall apply.

SPECIFICATIONS AND SUBMITTAL REQUIREMENTS:

An application must be completed for each submittal. A minimum of three sets of plans shall be submitted with the permit application. Plans shall show compliance in accordance with section 903 of the Clark County Fire Code and NFPA 22, as adopted

and amended. All submittals must be legible and readable or the plan shall be issued a correction letter for cause.

Plans shall address the following:

1. Water supply to refill tank
2. Duration of use
3. Information about tanks fabrication/standards. Steel tanks shall be designed in accordance with AWWA D100, *Welded Steel Tank for Water Storage,* 1996, or AWWA D103, *Factory-Coated Bolted Steel Tanks for Water Storage*, 1997.
4. Tanks capacity/actual usable gallons
5. System supply requirements
6. List of listed fittings and piping used
7. Automatic fill devices
8. Tank level monitoring
9. Overflow/fill protection
10. Location of tank and all piping and fittings to system pump/riser
11. Tank protection from freezing
12. Tank protection from collision/damage
13. Define type of tank installed
14. Provide vertical and horizontal (isometric) views of tank and relation to pump/riser location
15. A permanent connection to an approved water supply shall be provided to fill the tank
16. Where the tank serves as a break tank between the city supply and fire pump(s), the fill shall be through automatic fill valves that are tied to water level sensors, and a bypass line of equal size with a normally closed control valve shall be provided.
17. The means to fill the tank shall be sized to fill the tank in a maximum time of 8 hours. Where the tank serves as a break tank between the city supply and building fire pump(s), the means to fill the tank shall be automatic and shall provide supply flow equal to 150% of the fire pump rated flow.
18. 24-hour leak inspection
19. Method of tank support
20. Statement that tank complies with the requirements of NFPA 22 and local amendments

PERMIT REVISIONS AND RESUBMITTALS:

Revisions to approved plans are required to be submitted and approved. Revisions will be assessed additional plan review fees. A copy of the previously approved plan shall accompany the revised submittal to facilitate the review. Clearly indicate all changes to the revised plans by clouding the change with a delta number to signify the date of plan change. When several changes have been made, a detailed list of changes is required.

Re-submittals to address a Letter of Correction will require a full submittal. These plans require a copy of the red lined plan from the previous submittal to facilitate the review.

Clearly indicate all changes by clouding the change with the delta number to signify the date of plan change.

PLANS CHECK STATUS INSTRUCTIONS:

The status of the review can be checked by logging on to:
www.clarkcountynv.gov/depts/fire

INSPECTION SCHEDULING INSTRUCTIONS:

If approved, an inspection will need to be scheduled. To schedule an inspection, go to: www.clarkcountynv.gov/depts/fire. A fire inspector will review your site in accordance with the approved plans and this guideline.

The Clark County Fire Department's Fire Prevention Bureau (FPB) may witness and accept inspection, testing and maintenance of fire and life safety systems conducted by approved individuals as required by and within the scope and authority of the Clark County Fire Code.

This Guideline does not take the place of the Fire Code and does not take precedence over any Fire Code requirement or position taken by the Fire Chief. When a conflict exists between the requirements of this Guideline and the Fire Code or the opinion of the Fire Chief, the Fire Code or opinion of the Fire Chief prevails.

Technical Assistance, when required by the Fire Chief, will require a Technical Opinion and Report prepared by a State of Nevada licensed: qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the Fire Chief and the owner. The Fire Chief is authorized to require design submittals to bear the Wet Stamp and Signature of a professional engineer.

Acceptance of Alternative Materials and Methods requires a Technical Opinion and Report prepared by a State of Nevada licensed: qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the Fire Chief and the owner. The Fire Chief is authorized to require design submittals to bear the Wet Stamp and Signature of a professional engineer.