



## SWIMMING POOL INSPECTION CHECKLIST

Effective January 1, 2008

### 901 Inspections

1. Before you enter, make sure "Permission to Enter" sign is posted outside of the backyard, and that it is signed by the owner.
2. Check plans to make sure they are:
  - a. Stamped and signed by engineer (wet stamp).
  - b. Stamped either approved or received by the City of Las Vegas.
  - c. Check site plan for gas lines (size, locations and length of run).
  - d. Check site plan for other structures to be built (i.e. bar-b-ques, water features, equipment screen walls, retaining walls, patios etc.) make sure whoever pulled permit for pool or spa is aware of any other permits needed.
  - e. Check site plan to make sure it reflects exact conditions (i.e. location of pool, walls near pool – are they retaining and are they going to put a surcharge on pool, balcony columns, berms – check to see if berms have been removed or partially removed, also if any large palms trees are near pool or spa) and equipment location and soil zone. Check for clearance to overhead power lines.
  - f. If the walls are Proto II walls make a note to have an approved contractor rebuild any that have been removed or modified.
3. Check electrical conduit.
  - a. Bond the following with #8 solid copper wire: pool steel, light niches, any metal within 5' (including fences, windows), all motors, heaters and filters if they have a lug, any diving board, slide, or hand rail jigs, and automatic pool covers. All bonding to be done with approved clamps.
  - b. If conduit is scorched, it must be replaced, use thermostatically controlled benders only—no torches.
  - c. Schedule 80 above grade
  - d. Only 360 degrees worth of bends in any run between pull points.
  - e. Conduits to be 18" deep unless under concrete (only 4") or if GFCI protected and 120 volts only (12"). Fiber optic can be 12".
  - f. Pool light conduit run must terminate in an approved box equipped with hubs or threaded entries. It shall be 4" above ground level or 8" above water level, whichever is greater. If it is a flush mount deck box it must be 4' from waters edge.
  - g. Fiber optic boxes are to be at least 5' from pool or spa.
  - h. Check for existing lights and switches within 10' of pool area for compliance with NEC article 680.22.
4. PVC waterlines and drains.
  - a. Waterlines are to be 12" deep, if not covered by decking and sanded top and bottom with no rocks larger 3/8"
  - b. Drains are to be at least 3' apart or in different planes
  - c. No plumbing to be in concrete pours or slabs, it must be buried in sub grade.

- d. Plumbing to have proper listing. (nsf-pw or equal (upc or ul).
  - e. Check for any scorch marks or dents in PVC; if any it must be replaced. Use only thermostatically controlled benders—no torches.
  - f. Must keep PVC lines out of bond beam unless permitted by engineer; lines should be 6" down from top of bond beam in pools and spas. PVC in spa dam walls to be kept 1 ½" from steel.
5. Check approved site plans for engineer detail locations.
- a. Steel to be 3" clear of soil.
  - b. No mud, flaky rust, grease, oil or paint on steel.
  - c. Steel to be size engineer specifies on details
  - d. Check engineer details against steel as installed.
  - e. Check for water features, if natural rock then they must have engineered pad to support the rock, if they are to have an artificial feature then there are specific engineer details that must be followed.

### **903 Inspections**

1. Plastic gas line (PE)
  - a. Must have 60-PSI pressure.
  - b. Must be 18" deep and be sanded (3" bottom, 3" sides and 4" on top), no sharp aggregate.
  - c. Must sleeve risers with PVC pipe ½" larger on each side.
  - d. Must have continuous insulated yellow tracer wire wrapped around or taped to gas line and terminating above ground at each end.
  - e. Shut-offs required at the equipment end.
2. Metal gas line installed underground.
  - a. Factory coated pipe with 10-mil tape double wrapped on all joints and wrench teeth marks.
  - b. Maximum length of non-factory coated is 12", with 10-mil tape double wrapped.
  - c. Vents required when installed under concrete.
  - d. If installed above grade must be 6" above grade and secured per code.
  - e. Gas lines require shut-offs at the equipment end.
  - f. Sleeves shall be provided to protect all piping through concrete and masonry walls.

### **905 Inspections**

1. Turn down inspections required on concrete pools with decks 24" and wider and 12" or more above grade, follow engineers details for these inspections.
2. Raised decks against non-retaining walls require a clear space to prevent any surcharge.
3. Check that no slab will be poured against the existing house within 2" of weep screed.
4. Fiberglass pool deck inspections must follow the ICBO Evaluation Study details exactly.

## 910 inspections

1. Permission to enter sign to be posted. If not posted, knock on door for permission to enter.
2. Check approved site plans for any items that might have been added which are not on the plans (waterfalls, BBQ's, retaining walls, enclosure walls, etc). See City of Las Vegas handout dated May 1, 2007 about separate permits.
3. Gas lines:
  - a. Require shut-offs at the equipment end.
  - b. Heater must be bonded with a #8 solid copper wire.
  - c. Gas line pressure to be at 60 PSI for poly and 10 PSI for steel.
  - d. Heater to be on pad, 3" above grade.
  - e. Review 903 lists above.
4. Bonding:
  - a. Review 901 inspections above.
  - b. Insure that #8 bare copper is bonding together: the heater, pumps, light junction box on external lug, pool cover metal cover and motor. Do not bond sub-panel unless equipped with external lug then it's optional.
5. Electrical:
  - a. Sub-panel:
    - 1) Must have approved breakers. Verify overcurrent and disconnecting means for electrical equipment.
    - 2) Must have proper clearances (30" wide and 36" deep)
    - 3) Conduit properly supported below panel.
    - 4) Must use machine screws to mount any ground bars or lugs.
    - 5) Time clock cannot act as motor disconnecting means.
    - 6) Feeders require a minimum #10 wire and 30-amp breaker. Ground wire to sub-panel must be insulated.
    - 7) Insure that 24" access path is clear to any mechanical equipment.
    - 8) Check size of house main panel against approved plans.
    - 9) Check for proper circuit identification on breakers and controls (labeling).
  - b. Pool lights
    - 1) Must be GFCI protected, we must verify.
    - 2) Verify light junction box make-up, grounds, sealing, strain relief; box has proper mounting and support.
    - 3) Ground connection in light niches is properly sealed.
    - 4) Ground from light niche to junction box to be #8 insulated.
    - 5) Is light cord long enough to reach deck or spa bench.
    - 6) Light must be 18" below water level to lens glass or manufacturer listed for less.
    - 7) Fiber-optic light boxes must be mounted or buried as per the manufacturers listing.
    - 8) Lights to be proper lumens for pool size.
  - c. Pool surrounding area.
    - 1) No lights (even low voltage) within 5' of waters edge.

- 2) No receptacles within 10' of waters edge unless an existing GFCI receptacle no closer than 5'. Check any lights and switches within 10' for compliance to NEC 680.22.
  - 3) Motorized pool covers require GFCI protection.
  - 4) No switching devices within 5' of waters edge.
  - 5) Weatherproof junction boxes require proper support.
  - 6) Receptacle required a minimum of 10' from and not more than 20' from the inside wall of the pool.
  - 7) No decks within 2" of weep screed.
- d. Gates:
- 1) Must be self-closing and self-latching and 60" high measured from outside the enclosed area. Gates must open outwards.
  - 2) The latch or locking device must be at least 48" above grade and at least 6" from the top of the gate. This device must be protected from outside the enclosed area for a distance of 20" in all directions, except openings not greater than ¼" in diameter.
  - 3) Double gates must be padlocked and or chained and locked with no other modifications as long as there is another code compliant man gate. If a self-latching type device is used on a double gate then the 20" protective barrier will be required.
  - 4) Double gates that are the only access to the rear yard and each leaf of the gate is 8' or less require one side of the gate pinned and locked down and the other portion of the gate must be self-closing, self-latching and protected as per item # ii above.
  - 5) Clearance under the gate must no more than 4".
- e. Fences:
- 1) Fences are required to be 60" in height above grade measured from outside the enclosed area.
  - 2) Wrought iron fences with horizontal members 60" or greater apart must have verticals so that a 4" sphere will not pass through. Those with horizontal members less than 60" apart must have verticals space such that a sphere 1¾" cannot pass.
  - 3) Combination fences of wrought iron and block must be a total of at least 60" high and one element (the block or iron portion) at least 32" high.
  - 4) Maximum clearance under fences is 4".
  - 5) Existing fences fronting common area or golf courses etc. that do not meet the above codes must be done on a one on one basis with the supervisor.
  - 6) Any bodies of water 18" or less does not require barriers.
  - 7) Chain link fences to comply with 700.B.3.(d) of the Pool Code.
- f. Plumbing:
- 1) All water lines above grade must be painted to protect it from UV.
  - 2) Pumps securely bolted down.
  - 3) Must have a method to drain pool (1 ½" PVC with valve or direct to sewer, etc).
  - 4) Backflow prevention device on auto fill line. Must have anti-siphon device on rear hose bib.
  - 5) Auto fill shall not be connected to any irrigation system plumbing.
- g. Pool Safety:

- 1) Handholds are required around pool; the deck provides a handhold as long as the deck is not more than 12" above water level.
  - 2) It raised bond beam greater than 12" above water level handholds are required every 4' as follows:
    - a) Soap dish style that are at least 6" wide and must be epoxied
    - b) A permanently secured rope at least 3/4" in diameter and within 12" of water level.
  - 3) Steps shall have a maximum rise of 12", with a variation of not more than 1". The distance from the bottom of the pool to the bottom step is not considered a step.
  - 4) Safety glazing is required on windows within 60" of water's edge and lower than 60" from grade.
  - 5) Underwater seat, bench or swim out shall be a minimum of 12" wide by 12" long and a maximum of 24" below water surface and this will qualify as a second means of egress if the pool is over 30' in length.
  - 6) Slides must have depth requirements checked as per manufacturers listing.
  - 7) Any additions (raising up of) to block walls to meet 60" height requires a permit and express inspection for any epoxy checked as per manufacturer listing.
  - 8) Deco drains shall terminate at least 24" from any foundations.
  - 9) No backfill greater than 8" against non-retaining block walls.
  - 10) Batch tickets required verifying shotcrete PSI or letter from the gunite company to verify nozzle man and truck is on the approved list. On batch tickets verify times (batch time to delivery completion time, should not exceed 90 minutes).
  - 11) Door alarm letter of compliance with Southern Nevada Pool Code to be picked up at final 910 inspection.
6. Above ground manufactured spas.
- a. Require GFCI protection.
  - b. All pumps, heater, and metal junction boxes under spa shall be bonded with a #8 solid copper.
  - c. Must have pool code fence and gates unless there is a lockable cover meeting ASTM standard 1346 or equal.
  - d. Disconnecting means must be at least 5' from waters edge and insight of and no more than 50'.
  - e. Any light fixture or paddle fans within 5' of waters edge must be 7'6" above maximum water level and be GFCI protected.