



CODE TOPICS

2020 FBC 7th ED SECTION 454.2 RESIDENTIAL SWIMMING POOLS

ANSI 7 & 15 COMPLIANCE

TOPIC BACKGROUND

As you may know ANSI 7 relates to suction entrapment and ANSI 15 relates to Energy Conservation. We find all too often that contractor prepared ANSI 7 & 15 documentation for pool permits is not according to code and all too often the Building Departments issue permits that don't comply with code and at times would produce unsafe pools. The following are comments based on the most common errors seen.

WHAT THE CODE SAYS

- Only a one ANSI 15, Energy Conservation form is needed for a POOL project. This is not required for the SPA unless it is a SPA only project or a circulation system separate from the POOL.
- ANSI 7, Suction Entrapment, compliance must be demonstrated for each set of suction outlets, POOL, SPA and BASIN if used.
- Only detailed TDH calculations are allowed to determine the maximum flow to compare to the suction outlet cover rating. There is mention of alternate methods to meet the intent of the code, but not "Simple TDH".
- The ANSI 15 flow is determined by the maximum of the 6 hour turnover flow, or a lower flow as long as it meets the 12 hour turnover (stated in ANSI 5) if desired.
- Suction outlet covers must have rated flows more than the MAXIMUM flow determined by detailed TDH calculation for the pumps on that system.
- Suction outlet covers almost always have lower flows for wall installations, so when the maximum flow is more than the listed wall but less than listed floor flow, need to state "floor only suction".

REQUIRED AT PLAN REVIEW

For ANSI 15

- view the ANSI 15 flow is determined correctly and auxiliary flows are stated
- view that the selected pump has a low speed flow less than the ANSI 15 flow
- view that the filter selected can handle the ANSI 15 flow, not necessarily the maximum ANSI 7 flow
- view that there is a controller specified for multi-speed pumps
- view that heaters provided have the minimum efficiencies
- view that circulation piping is sized for maximum velocity at the ANSI 15 flow, not necessarily ANSI 7 flow

For ANSI 7

- view that the maximum flow from the pump is correctly determined
- view that the maximum flow from each pump and each suction outlet system is correctly determined
- view that the selected suction outlet fitting assemblies (SOFAs) are rated higher than the calculated MAXIMUM flows from the pump(s)
- view that if a SOFA includes a manufactured sump that is listed with specific branch pipe size, that pipe size is specified

REQUIRED DURING INSPECTION

Simply inspect to approved plans and specifications.

Disclaimer: This is offered as summary and guidance on code requirements. This does not authorize a code violation.