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Swimming Pool/Spa Suction Safety
NSF/ANSI 50 – 2005

8 Recessed automatic surface skimmers:

The issues:

1. 8.2 Weir - “normal operating range”
2. 8.4 Equalizer line (public pools) “differentiating public from non-public”
3. 8.5 Cover and mounting ring, “strength and UV exposure”
4. Section E 4.4 d) versus Section E 4.5 “confusion and possible conflict between observing for 30 seconds, and observing after 30 seconds.”
Background

- **Suction Safety**
  - Higher flow rating on skimmers allows fewer suction fittings (drains).
  - ASME Suction fitting flow rating

- **Deck Safety**
  - Skimmer lid structural integrity
    - UV exposure
    - Minimum strength
  - NEW ~ Design to be easily cleaned

- **Test consistency**
  - Water level test / observation times
Suction Safety

- Focus “residential pools”
- Goal “higher flow rating”
- Reason “encourage skimmers over suction fittings, because skimmers are safe”
- Allow higher flow rating without changing any other requirements
Proposed Change

- Add an additional flow rating based on a 2 inch requirement for weir movement versus 4 inch
- Limit 2 inch to residential pools with an automatic water fill (automatic water level control)
- No change to Public or Spas
  - Likelihood of water level variation based on bather load, i.e. lots of people get out at same time
Deck Safety

- **Strength of deck lid**
  - UV exposure
  - Initial strength
- **ASTM G 154, Standard Practices for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials, using the Common Exposure condition, Cycle 3** found in table X2.1
- **Point Load Test, 300 lbs. point load test**
Test Clarification

- E.4.4 Flow to pump - equalizer performance test method
  - 2 inch below skimmer throat, versus current “skimmer weir”
  - Observe for 2 minutes, not 30 seconds
Action Requested

- **8.8.2 ~ Add**
  - “The fitting shall have a flow rating equal to or higher than the maximum design flow rate of the skimmer.”

- **Form Task Group to review, write and present recommendations other issues.**