THE WATERPARK CAPITAL OF THE WORLD

POOL INSPECTIONS IN THE WISCONSIN DELLS

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A BRIEF HISTORY
WISCONSIN DELLS AT A GLANCE

- Largest concentration of waterparks in the world.

- Wilderness – indoor and outdoor combined is 500,000 sq. ft., equal to 12 football fields and is the largest combined waterpark in the nation.
WISCONSIN DELLS AT A GLANCE

• At 125,000 square feet, the African-themed Kalahari Water Park Resort is the 3rd largest indoor water park in the United States.

➢ 1st largest – Kalahari – Pocono Mountains - Pennsylvania

➢ 2nd largest – Kalahari – Sandusky, Ohio
WISCONSIN DELLS AT A GLANCE

- Approx. 400 licensed pools in Lake Delton/Wisconsin Dells
- Approx. 8 square miles
- Population based on 2013 census
  - Lake Delton: 2,934
  - Wisconsin Dells: 2,707
- Annually – 4 million!!!
INSPECTIONS ARE BROKEN DOWN

- Each basin is licensed separately based on type of basin or activity.
- Easier to look at each individual system
HOW DO WE LICENSE?

There is no black and white structure for licensing.

Basin Vs. Purpose
BASIC POOLS - RPP

A structure used for swimming, wading, diving, water recreation or therapy.

Swimming pools, wading pools, whirlpools
WATER ATTRACTION - RWI

RWI – provides patron recreational activity other than conventional swimming.

Leisure rivers, vanishing edge pools, wave pools, plunge pools
WATER ATTRACTION WITH UP TO 2 SLIDES - RWT

RWT - any of the previously listed types are converted to an RWT with the addition of a slide.

Children's slides are exempt from licensing.

• Less than 4 ft. in height and drops into less than 24 inches of water.

There is a charge for each additional slide over 2.
EXEMPT FEATURES

1.) Splash pad that does not have a recirculation system.

2.) Basin that does not have a recirculation system that are also filled and drained between each use.

3.) Home-style whirlpools that have a recirculation system, commonly found on deck of rental home, do not comply and are NOT allowed to be used by the general public

4.) Float tanks
4 BASIC INSPECTION COMPONENTS

1.) Physical
2.) Staffing
3.) Chemical
4.) Paperwork
PHYSICAL COMPONENTS

- Annual inspection by regulatory authority
- Designed and constructed in accordance with recognized safe practices – SPS
- Free of abrasives, splinters, sharp edges and corners, protruding studs, bolts, screws, and other hazardous projections
- Padding or other means to minimize injury due to patron impact
- All hazardous parts are enclosed, barricaded, or otherwise arranged to prevent injury
PHYSICAL COMPONENTS

• Pool basin free of cracks or other defects.

• Pool areas and appurtenances shall be maintained in good repair.

• Pool equipment shall be maintained in good repair.

• Daily inspection before use by patrons.

Mount Olympus
PHYSICAL COMPONENTS

- All waterslides are inspected every 5 years by a Wisconsin Certified Engineer.

- Facility required to provide to inspector during annual inspection.

- Inspector reviews and verifies corrections have been made.

- Waterslide = 100gpm
PHYSICAL COMPONENTS

- Scorpions Tail - Example
- Rely on the design of engineers to ensure patron safety
- Clear fiberglass design to allow for patron viewing
- A ladder that is attached throughout entire slide to rescue if necessary
- Additional features required
  - Escape pod
PHYSICAL - SAFETY FEATURES

• Drinking fountain within 300 feet of paved walkway

• First aid kit within enclosure

• Emergency phone within enclosure

• Signage

• Shepard's crook
STAFFING

- Pool operator
- Certified water attraction operator
- Responsible supervisor
- Lifeguards
- Attendants
STAFFING

- **Pool operator**
  - Each pool shall be under the supervision of at least one operator, except that contiguous multiple pools operated under the same owner may be supervised by one operator.

- **Certified Water Attraction Operator**
  - For water attractions and water attraction complexes

- Not required for basic pools and spas
STAFFING

• Lifeguards
  • U.S. Department of State’s J-1 Visa Program
    • 4,000-5,000 in Wisconsin Dells
    • Approx. 15,000 workers needed
      in the Wisconsin Dells during the summer

• Challenges:
  • Communication
  • Training new staff every year
  • Cultural
STAFFING

• Responsible Supervisor
  • At least one available in person or by phone

• Attendants
  • Instruct patron down a flume
  • Rove large obstructions
CHEMICAL

• The Dells boasts more than 20 indoor and outdoor waterparks
  • Totals more than 16 million gallons of water

With all this water, operators have to be actively monitoring their facilities constantly to retain the correct chemical concentration.
Most operators in Wisconsin Dells are checking their pools twice daily.
  - Large waterparks - four times daily
  - Above requirement
  - Draining whirlpools weekly

Electronic monitoring systems
  - Chlorine/bromine - once per day
  - pH - once per day
  - Combined chlorine - twice per week
  - Alkalinity - once per week
  - Cyanuric acid - once per week (if stabilizer)
CHEMICALS

- Ensure injectors are connected, plugged in and working properly
- Chemicals are labeled and stored in a manner conducive to public health and safety
- Monitoring devices are maintained
- Test kits are approved by the Department
CHEMICALS – FOLLOW THE PIPING

- Water comes in through skimmer and main drain
  - If surge tank, only one pipe
  - Check ratio

- Flows into pump
  - Spare baskets

- Flows into filter
  - Check pressure
  - Filter media
  - Flowmeter after filter = good

- Back into pool
  - Verify CL and acid are connected
CHEMICALS

• 2015-2016 – Salt generated systems
  • Uses electrolysis in the presence of dissolved salts (NaCl) to produce hypochlorous acid (HClO) and sodium hypochlorite (NaClO).
  • Became very popular in the Wisconsin Dells 2015-2016.
  • Caused operators to unplug liquid chlorine system

• **Salt Generated Systems are considered an alternative method. Therefore, a chlorine backup must be connected and functional at all times.**
• VGBA
  • The Virginia Graeme Baker Pool and Spa Safety Act – 2008
  • The granddaughter of former Secretary of State James Baker III died in an accident in June 2002 when the suction from a spa drain entrapped her under water.
  • Requires all pool/spa drain covers to be VGBA compliant
  • Several new requirements for Wisconsin - 2017
  
  - DSPS Pool Completion Statement
  - DSPS Conditional Approval
  - Engineers Report
  - Invoice
  - Manufacturer’s guarantee
PAPERWORK

- Fecal Incident Report
- Monthly Swimming Pool Report
- Lifeguard Staffing Plan
- Certifications
- Death Injury Illness Report
  - Submitted to State within 24 hours after EMS is called.
The cyanuric acid level must be lowered to below 15ppm before hyperchlorinating. ****Current test kits being used do not test for less than 30ppm cyanuric acid
HEALTHSPACE

• An electronic inspection system.

• Keeps record of past inspections and violations at each facility.

• Allows for uploading important documents such as engineers inspection reports or variances.

• Can email reports directly to operators.
ADVANTAGES OF THE WISCONSIN DELLS POOL INSPECTION PROGRAM

• Competition keeps facilities at a higher standard.
  • Survival of the fittest
  • Self-regulating
  • The power of social media

• Waterparks take in millions of dollars in revenue = LOT'S OF PROFIT
  • Resources are plentiful
  • Allows for violations to be quickly corrected
CONCLUSIONS

1.) Each inspection component brings unique challenges to the Department.

2.) The field is ever changing so staying up to date with current regulations is key.

3.) Have a motivated, energetic staff excited to educate and regulate!
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QUESTIONS???

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