POOL INSPECTIONS

DOH Water Recreation Program
Presenter: Justin Law
The Law

Chapter 70.90 RCW gives the authority to:
- Washington State Board of Health to adopt rules (health codes)
- Secretary of Health to enforce the rules
- Secretary of Health to develop Joint Plan of Responsibility with any local health department
The Rules

Chapters 246-260 WAC and 246-262 WAC:

- Provides specific health code requirements
- Provides specific information about who is responsible for what
- WAC 246-260 is for pools, spas, wading pools, splash pads...
- WAC 246-262 is for waterslides, wave pools, and other waterpark type features
Routine Inspections (1-3 per year)

- Depending on the county, following may vary
  - Inspection forms
  - Number of visits
  - Permit types and fees
  - Policies and procedures
Operating Permits

- Who issues operating permits?

  - An operating permit is required for each water recreation facility operated in this state.

  - A person may not operate a WRF without a current operating permit.
Operating Permits

- Valid for one year
- Subject to annual renewal (seasonal and annual permits)
- RCW 70.90.170 (Law)
- Permits may be revoked or suspended
Understanding WRF Inspection Form

Front page of form includes the following sections:

- WRF information
  - Inspection type
  - Permit type

- Water quality data
  - Primary disinfectant and pH levels
  - Water Temperature
  - Water Clarity
  - Flow rate

- Violation information
  - Critical vs. Non-Critical
  - Description of violation
  - Corrective action
**RED items**

- What are **red** items?
- What **red** items lead to **immediate** closure?
- Immediate corrective action required

**Black items**

- Repeated violations may lead to enforcement action
- Immediate corrective action required
Items in **Red** are critical health and safety violations that may be cause for immediate closure.

### Water Quality
- 0110: Disinfectant level very low - Closure
- 0111: Disinfectant level low - below minimum
- 0120: Disinfectant level high - Closure
- 0121: Combined chlorine level high (> 5% free chlorine)
- 0210: pH very low - Closure
- 0211: pH low - below minimum
- 0220: pH high - Closure
- 0221: pH high - above maximum
- 0300: Test Kit not adequate
- 0400: Water clarity unsatisfactory (main drain and pool bottom not visible) - Closure
- 0410: Water quality cloudy
- 0500: Water Temperature 106° F. - Closure
- 0510: Water Temperature > 106° F. and < 100° F.
- 0600: Cyanurate code high

### Walking Surfaces & Barriers
- 0700: Walking surfaces have trip hazards, improperly drained, slippery, or permeable finish
- 0800: Barrier height is not adequate
- 0810: Barrier construction is not adequate
- 0830: Guardrails are not satisfying
- 0840: Self-closing mechanism is not adequate
- 0850: Gate/gate box are not properly locked during periods facility is closed to public

### Inlets & Outlets
- 0900: Return outlets improperly secured and/or not intact - Closure
- 0920: Main drain, safety drain, or overflow system improperly functioning
- 1020: Skimmer weir not in place
- 1030: Skimmer equalizer line does not prevent entrainment

### Ladders, Stairs, Diving Boards, & Starting Blocks
- 1100: Not provided as required
- 1200: Problem with threads visible, chartreuse color, handrails secure
- 1300: Ladder boards are not properly secured or in need of repair
- 1400: Starting block protection not adequate

### Recirculation, Mechanical Room & Filtration
- 1500: Turnover rate is not adequate
- 1600: No flow meter
- 1610: Flow meter inappropriate
- 1700: Pumps not operating - Closure
- 1710: Filters not operating or malfunctioning
- 1800: Pumps & filters need maintenance
- 1900: Pump strainer needs maintenance
- 1910: Cartridge or filter not provided for cartridge filter
- 2000: Access within equipment room not adequate
- 2010: Equipment room not locked

### Disinfectant & Chemical Pool Storage & Equipment
- 2100: Disinfectant equipment installation, maintenance or operation is not adequate
- 2110: Disinfection feeder (chlorination) problem
- 2200: Gas cylinders not properly secured and stored
- 2300: Chemicals improperly stored and locked
- 2400: Chlorine gas facilities: Improper safety equipment & controls
- 2500: Interlocks between chemical feed pumps and recirculation system absent or inoperative

### Lighting & Ventilation
- 2600: Lighting inadequate
- 2700: Lighting fixtures and covers need repair
- 2800: Ventilation inadequate

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**Locker Rooms & Restrooms**
- 2900: Improperly maintained and operating
- 2910: Lockers don't provide proper storage
- 3000: Floors, walls, or ceilings in unsatisfactory condition
- 3100: Toilets, showers, or sinks not adequate or maintained, lacking soap, hand towels, or toilet tissue
- 3200: Water temperature exceeds maximum 106° F.

### Pool Structure, Markings & Safety Lines
- 3500: Pool sides are rough or have protrusions
- 3400: Pool surface color is not white or light color
- 3500: Depth markings not adequate
- 3600: Safety pool line or marking line not provided at break between shallow and deep areas of pool
- 3700: Pool surfaces in dirty and unsatisfactory condition

### Personal
- 3800: Lifeguards not present when required - Closure
- 3810: Attendant not present when required
- 3820: Lifeguard or attendant is not attired
- 3900: Personnel lack required certificates
- 4000: Emergency response training for appropriate personnel not provided and/or documentation not available

### Emergency Equipment
- 4200: Phone not provided and/or inoperable
- 4210: Entrance emergency equipment and/or alarm not operating
- 4300: When lifeguard is required, rescue tube or buoys and board not provided
- 4400: Single main drain, safety drain, or overflow system improperly functioning
- 4500: First aid kit (10 items) and/or accessible emergency blanket not provided

### Water Supply and Waste Disposal
- 4600: Water supply not in compliance with WAC 266-260
- 4700: Water supply not protected against cross connection
- 4800: Pool not protected against cross connection
- 4900: Sewage and waste disposal not in compliance with state and local codes

### Rather Use and Control
- 5000: When lifeguard is required, supervision of users not in conformance with requirements (i.e., responsible adults are not present when small children are at pool)
- 5100: Signage required is not obviously posted or lacks required elements
- 5110: Inadequate notification to users of conditions of use at non-lifeguarded facility
- 5200: Spectator areas and food service areas are improperly separated from pool area

### Other and Miscellaneous Items
- 5300: Monitoring and recordkeeping improperly maintained
- 5400: Operations plan not developed and/or used
- 5500: Pool improperly secured during periods of non-use
- 5600: Lack of valid operating permit on premises
- 5700: Other concerns for referral to other agencies (such as electrical, structural, etc.)
- 5710: Pool modifications made without required plan review and approval
- 5800: Miscellaneous concerns
Tips on writing a good WRF inspection form

1. State what you observed or told
2. Verify the violation item number
3. State what the pool code requires
4. State the corrective action
5. Provide a timeframe for corrective action
Example 1
Example 1 (continued)

• What did you observe?

• What is the violation item number?

• What does the pool code require?

• What is the corrective action?

• What is the timeframe for corrective action?
Example 2 (continued)

- What did you observe?
- What is the violation item number?
- What does the pool code require?
- What is the corrective action?
- What is the timeframe for corrective action?
Tools and Equipment for Inspectors

Documents
- Pool codes
- Inspection forms
- Educational documents
- Illness and incident forms
- Copies of the pool rules and pool logs

Tools and Equipment
- Pool Kit
- Flash light
- Light meter (if available)
- Measuring tape
- Thermometer
- Ear plugs
Tools and Equipment for Operators

Documents
- Operation plans
- Dry and liquid measuring conversion sheet
- SDSs for each piece of equipment
- Pool log records

Tools and Equipment
- Pool kit and back-up chemicals
- PPE for pool chemicals
- Dry and liquid measuring utensils
- Tools needed to operate recirculation system equipment
Staying safe at WRF?
Pressurized equipment dangers

- All equipment after the pump operates under pressure
- What should I do before adjusting any equipment?
- Wear PPE as recommended
Routine Maintenance with Pressured Equipment
Commonly used pool chemicals
CAUTION

Never attempt to clear a clogged line by switching chemicals. Switching the muriatic acid and sodium hypochlorite lines can result in these chemicals mixing and releasing toxic chlorine gas.

Never mix different brands of disinfectants.
Chemical Storage Room

- Read and understand the product label for each pool chemical used
- Restrict access to equipment and chemical storage rooms/areas
- Ventilation needed
- Rooms and areas shall be out of direct sunlight, dry and cool
- Sized sufficiently to store all needed pool chemicals
Chemical Storage

- Don't store chemicals on floor
- Use a different scoop, bucket, & dispensing equipment for each pool chemical
- Know where PPE is located
- Don't eat or drink
Safety Tips When Handling Chemicals

• Remove swimmers from the pool/spa before adding any chemicals
• Follow the product label for each pool chemical used
• Wear PPE as recommended by chemical manufacturer
• Make sure you have the current measuring utensil
• Use a different scoop, bucket, & dispensing equipment for each pool chemical
• Wind direction – avoid breathing dust or fume

*DO NOT ADD WATER TO Dry POOL CHEMICALS*
Videos on Chemical Exposure

https://www.youtube.com/watch?v=LHImDrjR7gE

https://www.youtube.com/watch?v=RC015QXlnl4
Potential Health Effects of Pool Chemicals

1. Chlorine (skin contact, inhalation, ingestion)
   - Gas vs Liquid exposure
   - Blurred vision
   - Chest tightness
   - Coughing
   - Difficulty breathing or shortness of breath

2. Acid (inhalation of vapors)
   - Acute – burns, pulmonary edema, coughing, irritation of the respiratory tract
   - Long term skin contact: pain, burns, skin irritation

3. Soda Ash
   - Irritation of the eyes, throat and nose mucous membranes.
   - Mild irritation of the skin
Chemical Emergency Plan

1. **Before an incident**
   - Develop a chemical emergency response plan
   - Routinely train staff

2. **During an incident**
   - Activate established chemical emergency response plan

3. **After an incident**
   - Document the incident and response and notify your LHJ within 48 hours.
   - Conduct a post-incident critique with all parties involved in the response
Questions?
Questions

1. Explain the proper way to store pool chemicals.
2. As a pool owner or operator, what should I do before replacing my recirculation pump?
3. What are some useful tools and equipment that will help me while I am at a water recreation facility?
4. As a pool owner or operator, what should I do to prepare my facility for emergencies?
5. What are some of the health effects of improper exposure to pool chemicals?
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