

Story County Environmental Health
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Form SCEH 3-3-16

Iowa Department of Public Health
Division of Environmental Health
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Facility Name: ISU Beyer Hall Pool		Registration #: SP85-023	
Person Contacted:		<input checked="" type="checkbox"/> Pool <input type="checkbox"/> Spa <input type="checkbox"/> Other:	
Title:			
Facility Physical Address: Beyer Hall		City: Ames	State: Iowa
			Zip: 50011-1180
County: Story		Date of Inspection: 5-21-19	
Name of CPO(s) <i>John Jasse</i>			
A CORRECTION PLAN ADDRESSING EACH VIOLATION MUST BE SUBMITTED TO STORY COUNTY ENVIRONMENTAL HEALTH BY DATE NOTED ON INSPECTION REPORT.			

A. WATER CHEMISTRY

Temperature	<= 104° if spa	—	pH	6.8-8.2 (7.2-7.8)	—
Total Chlorine		4.06	Alkalinity		—
Free Chlorine	0.6-8.0 (1.0-8.0)	3.90	Calcium Hardness		—
Combined Chlorine		.16	Cyanuric Acid	<= 80 ppm	—
Total Bromine	1.0-18.0 (2.0-18.0)	—	ORP Reading	7.5	732

Key: S = Satisfactory U = Unsatisfactory N/A = Not Applicable Blue Code # – Pool Red Code # – Spa

MANAGEMENT/PERSONNEL

S U N/A

1. CPO/ Lifeguard certificates

Copies of certified operator, lifeguard, first-aid, basic water rescue, & CPR certificates for the facility staff shall be kept at the facility. 15.4(6)h 15.51(5)a

2. Frequency of Required Tests

- Swimming pool: ORP and pH at opening and every 4 hours; free Cl (Br) 2x daily; combined Cl, total alkalinity and cyanuric acid weekly; calcium hardness monthly. 15.4(2)e(1)-(5)
- Spa: ORP and pH at opening and every 2 hours; free Cl (Br) and temperature 2x daily+; combined Cl and cyanuric acid daily; total alkalinity weekly and at each fill; calcium hardness at each fill. 15.51(2)e
- Sample to a lab for bacteria analysis monthly. 15.4(2)e(6) 15.51(2)e(8)

3. Operational records, operations manuals, emergency/staff plans, GFI/backwash records

- Results of chemical tests. 15.4(6)f(1)
- Spa water temperature. 15.51(5)e(3) The spa shall be closed if the water temperature exceeds 104°F. 15.51(4)c
- Results of monthly microbiological analyses. 15.4(6)f(2) 15.51(5)e(2)
- Reports of complaints, accidents, injuries, & illness. 15.4(6)f(3) 15.51(5)e(4)
- Dates & quantities of chemical additions, including resupply of chemical feed systems. 15.4(6)f(4) 15.51(5)e(5)
- Dates when filters were backwashed, cleaned or a filter cartridge was changed. 15.4(6)f(5) 15.51(5)e(6)
- Spa Dates when spa was drained and cleaned. 15.51(5)e(7)
- GFI receptacles & breakers shall be tested at least 1x/month; dates of tests shall be recorded. 15.4(6)f(6) 15.51(5)e(8)
- A written emergency plan shall be provided. It must be reviewed annually and the date(s) of review recorded. 15.4(6)L 15.51(5)
- MSDS for chemicals used at the pool must be on-site. MSDS must be reviewed annually and the date(s) of review recorded. 15.4(6)k 15.51(5)
- A permanent manual for the operation of the facility shall be kept at the facility. 15.4(6)j 15.51(5)g
- The lifeguard staffing plan for the facility shall be available to the inspector at the facility. The plan shall include staffing assignments for all programs conducted at the pool. 15.4(6)m
- Main drain and SVRS documentation (VGB) with dates of installation must be at the facility. Each SVRS must be tested at least monthly and the test date(s) recorded. 15.4(3)h(1)&(3) 15.51(4)(2)&(4)
- A spa containing 500 gallons of water or less shall be drained, cleaned & refilled a minimum of once a week, a spa containing 500 to 2000 gallons of water a minimum of one time every two weeks, and a spa containing more than 2000 gallons a minimum of one time every three weeks. A record of the drain & refill shall be at the facility. 15.51(3)b(2)

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POOL/SPA AND SURROUNDING AREAS

1. First Aid Kit

- A swimming pool facility shall have a first-aid kit which contains a supply of bandages, bandage compress, self-adhering gauze bandage & disposable gloves. Where life guards are not present, the first-aid kit shall be prominently mounted in the swimming pool enclosure, or a sign stating its location shall be posted near the swimming pool. 15.4(4)(4)

2. Telephone

- A designated emergency telephone shall be available to the users of a swimming pool/spa. Instructions for emergency use of the phone must be posted. If the emergency telephone is not located within the swimming pool/spa enclosure, management shall post a sign(s) indicating the location of the emergency telephone. 15.4(4)(7) 15.51(4)d

3. Electrical Outlets

- Each electrical outlet on the deck & in the swimming pool/spa treatment equipment areas shall be equipped with a properly installed ground fault circuit interrupter (GFCI) at the outlet or at the breaker serving the outlet. 15.4(4)m(1) 15.51(4)(1)

4. Signs (Rules posted/spa bather load)

- Legible rules signs shall be posted conspicuously at a minimum of two locations w/in the facility enclosure. Rules shall include: No diving in the shallow end, No horseplay, No running on deck. 15.4(6)b 15.51(5)b
- A 'No Lifeguard' sign shall be posted at each entry to a swimming pool or a wading pool where lifeguards are not required. 15.4(6)d
- Rules & restrictions for the use of a water slide shall be posted near the slide. 15.4(6)e
- A Spa Rules sign shall be posted near the spa. 15.51(5)b
- The maximum depth of a spa shall be posted at a conspicuous location near the spa in numerals or letters. 15.51(5)c

5. Spa Jet Timer and Emergency Stop

- The spa jet timer shall be out of reach of persons in the spa. The timer cycle shall be 10 minutes or less. 15.51(5)c
- An emergency shutoff switch shall be installed near the spa. The switch shall stop both the filter and the jet pumps.

6. Pool/Spa Lighting

- Artificial lighting shall be provided for indoor pools/spas and for outdoor pools/spas used after sunset. Overhead and underwater lights shall be functional. 15.4(2)m(2)1 15.51(4)(4)1
- Underwater lights operating at more than 15 V shall be equipped with a GFCI. 15.4(2)m(2)2 15.51(4)(4)2

7. Deck Clean/Drainage/Slip Resistant

- The decks shall drain away from the swimming pool/spa. The deck shall be maintained free of standing water (to the extent practical).
- Decks shall have a slip resistant, durable and cleanable surface, free of litter, obstructions & tripping hazards. 15.4(4)k 15.51(4)h

8. Clarity

- A swimming pool shall be closed if the grate openings on the main drain are not clearly visible (>8 ft deep, main drain is clearly visible). 15.4(2)c
- A spa shall be closed if the openings on drain fittings at the bottom of the spa are not clearly visible when the jet system is off. 15.51(2)c

9. Pool cleanliness

- A swimming pool/spa shall be clean. 15.4(2)b 15.51(3)b(1)

10. Water level

- Swimming pool & spa water levels shall be maintained at the skimming level. 15.4(2)g 15.51(4)e

11. Color (Walls, Bottom)

- The bottom & sides of a swimming pool shall be white or a light color. 15.4(4)(1)

12. Smooth Finish

- Swimming pool/spa walls & floors shall have a smooth surface. 15.4(4)(2) 15.51(4)g

13. Sharp/Rough Edges

- No sharp or excessively rough edges shall be present in or around the swimming pool/spa.

14. Gutters/skimmers

- A swimming pool/spa shall have a means for skimming the water surface. 15.4(1)b(4) 15.51(1)e
- Each skimmer shall have a self-adjusting weir. 15.4(1)b(4)1 15.51(1)e(1)
- Skimmers shall have an easily removable basket upstream from any valve. 15.4(1)b(4)1 15.51(1)e(2)
- Skimmer equalizer openings in the pool/spa must have VGB compliant fittings or the equalizers must be plugged. 15.4(4)h 15.51(4)f

15. Inlets

- Inlets shall provide for uniform distribution of disinfectant residual. 15.4(1)b(3) 15.51(1)d
- Inlet openings shall be 1" diameter or less. 15.4(1)b(4) 15.52(8)b(2)

16. Main Drain and other submerged outlets (VGB)

- Each outlet including the main drain(s), shall be designed to prevent human entrapment. 15.4(4)h 15.51(4)f
- Each drain shall have a cover with openings or slots no more the 1/2 inch wide. 15.4(4)h 15.51(4)f
- Drain covers shall not be removable without the use of tools. 15.4(4)h(2) 15.51(4)(2)

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17. Boundary Lines

- The boundary between shallow & deep water (5 ft) shall be marked by a float line with floats spaced no more than 5 ft apart. When the slope of the floor of a swimming pool exceeds 1:12 ft at a depth of less than 5 ft, a float line shall be placed within 12 inches of the shallow edge of the slope change. 15.4(4)(3)
- A stripe at least 4 inches wide shall be marked on the floor and walls of the pool at 5 feet depth or at the beginning of a slope greater than 1:12.

18. Depth Markers

- Depth markers shall be located on the deck no more than 3 ft from the edge of the swimming pool. 15.4(4)(1)
- Depth markers shall be located at 1 ft depth intervals, but not more than 25 ft apart measured between the centers of the depth markers. 15.4(4)(2)
- Depth markers shall be located not more than 25 ft apart measured between the centers of the depth markers around the deep end of the swimming pool. The words "Deep Water" may be used in place of numerals as depth markers. 15.4(4)(3)

19. No Diving Markers

- Swimming pool areas where diving is not permitted shall be marked with "No Diving" or equivalent wording or graphics on the pool deck within 3 ft of the edge of the swimming pool at intervals no greater than 25 ft between the centers of the markers around the perimeter of the area. 15.4(4)(6)

20. Slip Resistant Markers

- Letters, numbers & graphics marked on decks shall be slip resistant. 15.4(4)(7)

21. Emergency Equipment

- Except for wading pools, a minimum of one unit of lifesaving equipment shall be provided for each 1500 ft² of water surface area or fraction thereof. A unit of lifesaving equipment consists of one of the following: A U.S. Coast Guard recognized ring buoy, a life pole or a "shepherd's crook" of at least 8 ft in length, a rescue buoy, a rescue tube, &/or any other piece of rescue equipment approved by the department. 15.4(4)(1)

22. Handrails, Guardrails, Stairs, Ladders & Ramps

Pool

- Ladders or recessed steps shall be provided in the deep portion of a swimming pool. Stairs, ladders, recessed steps or ramps shall be provided in the shallow portion if the vertical distance from the bottom of the swimming pool to the deck is more than 2 ft. 15.4(4)b(1)
- Ladders, ladder rungs & ramps shall be securely anchored. 15.4(4)b(2)
- Stairs, ladder rungs, ramps & recessed steps shall be slip-resistant. 15.4(4)b(4)
- If a swimming pool is over 30 ft wide, recessed steps, ladders ramps or stairs shall be installed on each side. 15.4(4)b(5)
- Where recessed steps are provided, securely anchored grab rails shall be provided. 15.4(4)b(7)
- Where stairs or ramps are provided, they shall be equipped with a securely anchored handrail. 15.4(4)b(7)
- When stairs are provided for entry into a swimming pool, a slip resistant stripe at least 1 inch wide of a color contrasting with the swimming pool floor shall be marked at the leading edge of each tread. 15.4(4)b(8)
- The vertical rails of a ladder shall be 3" to 6" from the pool wall. 15.4(4)b(3)
- The bottom end of a ladder shall be within one inch of the pool wall and shall be covered with a smooth non-metallic cap. 15.4(4)b(3)
- Ladders, handrails & grab rails shall have no exposed sharp edges.

Spa

- A spa shall have at least one stairway, ramp, ladder or set of recessed steps designating a point of entry. 15.51(4)b
- Stair steps shall be slip resistant. 15.51(4)b(2)
- Stair steps shall be provided hand/grab rails. 15.51(4)b(3)
- Ladders, handrails & grab rails shall be securely anchored. 15.51(4)b(5)
- Ladders, handrails & grab rails shall be of corrosion-resistant materials, or provided with corrosion resistant coatings. 15.51(4)b(4)
- Ladders, handrails & grab rails shall have no exposed sharp edges. 15.51(4)b(4)

23. Lifeguards and Lifeguard Chairs

- Lifeguards required for city, school and other pools greater than 1500 ft² (exceptions for apartments, condominiums, homeowner associations, country clubs, manufactured home communities, and mobile home parks). 15.4(4)d(1)
- Outdoor swimming pools where lifeguards are required by rule shall have at least one elevated lifeguard chair or station provided for a swimming pool with a water surface area of 2000 - 4000 ft² inclusive; at least two chairs shall be provided if the area is 4001-6000 ft²; and at least three chairs shall be provided if the area is 6001 ft² or more. 15.4(4)e

24. Starting Blocks

- Starting blocks shall be removed, covered, or a sign posted to prevent use by the public during general use periods. 15.51(4)d(2)

25. Hose Bibs

- At least one hose bib shall be provided for flushing the deck. 15.5(4)h
- Vacuum breaker backflow preventers shall be provided on all hose bibs at a swimming pool or spa facility, including shower rooms, and pool equipment rooms. 15.4(1)d(2) 15.51(1)g(2)

26. Fencing

- Except for a fill & drain wading pool, a swimming pool shall be enclosed by a fence, wall building enclosure or combination thereof not less than 4 ft high & made of durable material. 15.4(4)L(1) 15.51(4)k(1)
- A fence, wall or other means of enclosure shall have no openings, other than gateways & doorways, that would allow the passage of a 4 inch sphere, & shall not be easily climbable by toddlers. 15.4(4)L(2) 15.51(4)k(2)
- The distance between the ground & the top of the lowest horizontal support accessible from the outside of the facility, or between the two lowest horizontal supports accessible from outside the facility, shall be at least 45 inches. 15.4(4)L(2) 15.51(4)k(2)
- If a wading pool is within 50 ft of a swimming pool, the wading pool shall have a barrier at least 36 inches high separating it from the swimming pool. 15.4(4)L(4)
- An indoor swimming pool shall be enclosed by a barrier at least 3 ft high if there are sleeping rooms, hallways, apartments, condominiums or permanent recreation areas used by children that open directly into the swimming pool area. 15.4(4)L(5) 15.51(4)k(4)

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- A wave pool shall have a continuous barrier along the full length of each side of the wave pool. The barrier shall be at least 42 inches high and be installed 2 1/2 to 3 ft from the side of the wave pool. Users shall not be permitted in this area. 15.4(4)L(6)

27. Gates

- A gate at least 36 inches in width shall be provided for emergency purposes. 15.4(4)L(3) 15.51(4)k(3)
- Gates must be lockable. 15.4(4)L(3) 15.51(4)k(3)
- Where lifeguards are not provided, gates/doors must be self-closing and self-latching. 15.4(4)L(3) 15.51(4)k(3)

Diving well

1. Board & Platform:

- Diving boards & platforms over 3 meters high are prohibited except where approved by the department. 15.4(4)c(5)
- Diving boards & platforms shall have slip-resistant surfaces. 15.4(4)c(6)
- Diving boards shall have no cracks or other obvious structural defects. 15.4(4)c(10)

2. Water Depth

- See TABLE 3 page 15 of the Iowa Swimming Pools Code 15.4(4)c(3)

3. Support Structure(s)

- Supports, platforms & steps for diving boards shall have no obvious structural problems. 15.4(4)c(10)
- Diving board steps in good repair and slip-resistant. 15.4(4)c(10)
- Handrails and guard rails present and secure. 15.4(4)c(10)

Water Slides/Swimming Pool Slides

1. Chute Structure(s)

- Water slide support structures shall be free of obvious structural defects.
- The internal surface of a flume shall be smooth and continuous for its entire length.
- The flume shall have no sharp edges within reach of a user while in the proper sliding position.

2. Landing areas

- Plunge pool depth shall be at least 3 ft and no more than 4 ft at the end of the flume and for at least 15 ft beyond the end of the flume.
- The landing area for a water slide or a swimming pool slide shall be designated by a float line or a painted area (swimming pool slides).

WATER QUALITY

1. Water Supply

- Water supplied shall be from a water supply meeting the requirements of the IDNR for potable water. 15.4(1)d 15.51(1)g
- Water supplied shall be discharged to the system through an air gap or a reduced principle backflow device. 15.4(1)d(1) 15.51(1)g(1)
- Reduced pressure backflow preventer must be tested annually. Record of test must be available. 15.4(1)d(1) 15.51(1)g(1)

2. Water Quality Test Results

- Refer to Iowa Code sections listed & Aquatic Facility Testing & Record Keeping Requirements handout provided. 15.4(2) 15.51(2)

3. Test Kit

- A swimming pool/spa facility shall have functional water testing equipment for free chlorine & combined chlorine, or total bromine; pH; total alkalinity; calcium hardness; & cyanuric acid. 15.4(2)f 15.51(2)f

6. Vacuum Cleaner

- A vacuum cleaning system capable of reaching all parts of the pool bottom shall be provided. 15.4(3)b(2)

WATER TREATMENT EQUIPMENT

1. Circulation Equipment

- The filter pump shall be operating. 15.4(1)b(1) 15.51(1)c
- Pressure gauges at filter pump (before and after) and filter shall be functional. 15.4(1)b(2) 15.51(1)c
- The circulation system flow meter(s) shall be functional. 15.4(1)b(1) 15.51(1)c

2. Disinfection/Chemical Feed

- Disinfection chemical equipment shall be working. 15.4(3)a(1) 15.51(3)a(1)
- pH chemical feed equipment shall be working. 15.4(3)a(2)
- ORP/pH controller shall be working and shall activate chemical feeders as necessary. 15.5(11)a 15.51(11)a

3. Solution Tank

- If a sodium hypochlorite tank is larger than 55 gallons, secondary containment is required. 15.5(11)g

4. Chemical Storage

- Swimming pool/spa treatment chemicals shall be stored & handled in accordance with the manufacturer's recommendations. 15.4(4)a(2)
- Chemical storage containers shall be clearly labeled. 15.4(4)a(4)
- A chemical hazard warning sign shall be placed at the entrances where chemical are used/stored, or where bulk containers are located. 15.4(4)a(5)

5. Water Heater/Boiler

- Electric water heaters shall bear the seal of UL, Underwriters Laboratory, Chicago, Illinois. 15.4(1)e(1) 15.51(1)h(1)
- Gas-fired heaters shall be equipped with a pressure relief valve. 15.4(1)e(2) 15.51(1)h(2)
- Fuel-burning water heaters shall be vented to the outside in accordance with the Iowa State Plumbing Code. 15.4(1)e(3) 15.51(1)h(3)

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Rooms with fuel-burning equipment shall have one or more openings to the outside for providing combustion air. 15.4(1)e(4) 15.51(1)h(4)

6. Gas Chlorine Room (Gas - Vents, Lights, Gas Cylinders)

- Room shall have an airtight exhaust system which takes its suction near the floor & discharges out of doors in a direction to minimize the exposure to swimming pool patrons. The system shall provide one air change every 4 minutes. 15.4(4)n(1)
- An air intake shall be provided near the ceiling. 15.4(4)n(2)
- The exhaust fan shall be operated from a switch in a nearby location outside the chlorine room or building. 15.4(4)n(3)
- A plastic bottle of commercial strength ammonia solution for leak detection shall be provided. 15.4(4)n(7)

SHOWERS / TOILETS / DRESSING ROOMS

1. Cleanliness

- Users shall have access to showers, dressing rooms & sanitary facilities that are clean & free of debris. 15.4(5)
- Floors shall be slip-resistant and be maintained without standing water (to the extent practical). 15.4(5)a
- Carpet shall not be installed in wet areas of the bathhouse/dressing area. 15.4(5)c

2. Facilities Working

- All lavatories, showers & sanitary facilities shall be functional. 15.4(5)d
- Soap shall be available at each lavatory and at each indoor shower fixture. 15.4(5)e

3. GFI's/Hosebibs

- Electrical outlets in the public dressing, lavatory and shower areas shall be protected by properly installed ground fault circuit interrupter (GFCI) receptacles at the outlet or breaker serving the outlet. 15.4(4)m(1) 15.51(4)jj(1)
- A hose bib(s) shall be provided within the bathhouse or dressing area. 15.5(21)e

IOWA SMOKEFREE AIR ACT - Iowa Code § 142D:

- No violations observed (No evidence of smoking in prohibited areas, no ashtrays present, signs posted at entrances).

