NAME:
Location: $\qquad$ Fee Paid:
Submitted by: $\qquad$ Date: $\qquad$ New [ ] Existing [ ]
Reviewed by: $\qquad$ Date: 1
$\underline{Y}$ NA
2.0 SUBMISSION OF PLANS
[ ] [ ] [ ] 2.1 GENERAL - Prepared by licensed engineer or architect. Construction complies w/Uniform Code.
2.2 BASIS OF DESIGN REPORT - Checklist (See DOH 2434 \& 1309)
[ ] [ ] [ ] 2.2.1 Swimming pool perimeter, area and volume
[ ] [ ] [ ] 2.2.2 Flow rate, turnover and filtration rate
[ ] [ ] [ ] 2.2.3 Anticipated swimmer load (maximum and average)
[ ] [ ] [ ] 2.2.4 Source, quality, quantity available \& characteristics of water supply
[ ] [ ] [ ] 2.2.5 Description of filtration, recirculation and chemical feed equipment
[ ] [ ] [ ] 2.2.6 Hydraulic computations including head loss in all piping \& recirculation equipment
[ ] [ ] [ ] 2.2.7 Pump curves showing that proposed pump will provide proposed flows
2.3 PLANS AND SPECIFICATIONS (See GEN 134 and drawings)
[ ] [ ] [ ] 2.3.1.1 Name \& address of proposed facility and name and address of owner
[ ] [ ] [ ] 2.3.1.2 Scale, north point and direction of prevailing wind
[ ] [ ] [ ] 2.3.1.3 Date, address, name, professional seal, and signature of designing engineer or architect
[ ] [ ] [ ] 2.3.1.4 Plot plan of property: topography; present \& proposed structures; present \& proposed pools
[ ] [ ] [ ] 2.3.2 Detailed plans -drawn to a suitable scale, including:
[ ] [ ] [ ] 2.3.2.1 Complete construction details, including dimensions, elevations \& appropriate cross sections
[ ] [ ] [ ] 2.3.2.3 Size and location of all piping including elevations
[ ] [ ] [ ] 2.3.3 Specifications - detailed specs for pool, bathhouse, recirculating system, filtration facilities, disinfection equipment, and all other appurtenances shown on detailed plans

### 3.0 PATRON USE

3.1 DESIGNATION OF AREAS- Shallow Area (5' depth or less), Deep Area (over 5' depth) 3.2 DESIGN BATHER CAPACITY
[ ] [ ] [ ] 3.2.1 Shallow area - 15 square feet per patron
[ ] [ ] [ ] 3.2.2 Deep area - 25 square feet per patron
[ ] [ ] [ ] 3.2.3 Diving area - reserve 300 square feet per diving board or diving platform
[ ] [ ] [ ] 3.2.4 Spa pools - 10 square feet per patron
[ ] [ ] [ ] 3.3 Excess Deck Allowance - One additional patron per 50 square feet excess deck area (see Section 5.9)

### 4.0 CONSTRUCTION MATERIAL

[ ] [ ] [ ] 4.1 MATERIALS - inert, stable, nontoxic, water tight and enduring. Prohibited: sand or earth bottom, unlined wooden tubs
[ ] [ ] [ ] 4.2 CORNERS - intersections of walls \& floors are rounded
[ ] [ ] [ ] 4.3 FINISH - Bottom and sides: white or light color with smooth, easily cleanable surface
[ ] [ ] [ ] 5.0 DESIGN, DETAIL, AND STRUCTURAL STABILITY - designed to withstand anticipated load when full or empty. Hydrostatic valve or underdrain system. Designer must certify structural stability and safety when full or empty.
[ ] [ ] [ ] 5.1 SHAPE - Circulation \& control of bathers not impaired, no underwater or overhead projections or obstructions
[ ] [ ] [ ] 5.2 MINIMUM DEPTH - 3' except special purpose \& wading pools
[ ] [ ] [ ] 5.3 BOTTOM SLOPE - slope toward main drain. Shallow area (<5') slope not to exceed 1' vertical to 12' horizontal
[ ] [ ] [ ] 5.4 AREA MARKED - 4" stripe (permanent) of contrasting color on bottom \& sides at 5' or break point and safety rope and floats with float keepers. Ledges $\&$ step edges with $4^{\prime \prime}$ stripe of contrasting color.
[ ] [ ] [ ] 5.5 POOL WALLS - Either: (1) vertical for at least 6'; or (2) vertical for at least 3' below the water level; below which the wall may be curved to the bottom with a radius not greater than the difference between the depth at that point \& 3'; provided that vertical is interpreted as not greater than $1^{\prime}$ horizontally for each $5^{\prime}$ of depth of sidewall ( $11^{0}$ from vertical).
[ ] [ ] [ ] 5.5.1 LEDGES - shall not extend into pool unless essential for support of upper wall construction.

| [ ] [ ] [ ] 5.6 | DIVING AREAS - MUST conform to Table \#1, for competitive diving can use nationally recognized competitive diving standards |
| :---: | :---: |
| [ ] [ ] [ ] 5.6.1 | Headroom - unobstructed $16^{\prime}$ above board measured from front center of board. Area must extend $8^{\prime}$ behind, 8 each side and 16 ahead of the measuring point |
| [ ] 5.6.2 | Diving boards \& platforms - greater than 3 meters based on design that adequately addresses the special safety considerations |
| [ ] [ ] [ ] 5.6.3 | Steps and guard rails for diving boards - Supports, platforms \& steps of substantial construction and structural strength. Steps corrosion-resistant, easily cleanable, non-slip. Handrails for boards 1 meter or more. Guard rails 30" high, extend at least to edge of water. |
| [ ] [ ] [ 5.7 | DECK SLIDES - All pool slides have U S Consumer Product Safety Commission or equal label. |
| [ ] [ ] [ 5 5.7.1 | Depth - discharge into minimum water depth of 4' |

## 5.8 - LADDERS RECESSED STEPS \& STAIRS

[ ] [ ] [ ] 5.8.1 Location - provided at shallow and deep ends: if over 30' wide, provided on both sides
[ ] [ ] [ ] 5.8.2 Ladders - corrosion resistant, nonslip treads, provide handhold, 3"-6" clearance to pool wall
[ ] [ ] [ ] 5.8.3 Recessed steps - cleanable, drain into pool, 5" minimum tread, 14" minimum width
[ ] [ ] [ ] 5.8.4 Handrails - on each side of ladders \& recessed steps, extend over edge of deck or coping
[ ] [ ] [ ] 5.8.5 Stairs - recessed or diagonal in corner, handrail, nonslip, 12" minimum tread, 10" maximum rise
[ ] [ ] [ ] 5.9 DECKS - 5' clear deck including behind slides and diving boards, impervious, easily cleaned, protected from surface runoff
[ ] [ ] [ ] 5.9.1 $\quad$ Slope - at least $1 / 4$ " per foot to deck drains or grades
[ ] [ ] [ ] 5.9.2 Drainage - deck drains, if used, no more than 25' apart, drain up to 400 square feet, indirect to sewers, not to gutters or recirculation system.
[ ] [ ] [ ] 5.9.3 Roll-out gutters - not more than 5' of deck sloped to deck level gutters
[ ] [ ] [ ] 5.9.4 Carpeting - Only NSF approved deck carpeting
[ ] [ ] [ ] 5.9.5 Hose bibs - provided for flushing deck, antisiphon device
[ ] [ ] [ ] 5.9.6 Spectator area - effective separation between swimmer \& spectator areas
[ ] [ ] [ ] 5.9.7 Food concessions - separation between concession and pool patron area
[ ] [ ] [ ] 5.10 FENCING - all pools, including wading pools as follows:
[ ] [ ] [ ] 5.10.1 - at least 4' high with maximum vertical clearance to grade of 2"
[ ] [ ] [ ] 5.10.2 - picket-type fence, horizontal space no more than 4"
[ ] [ ] [ ] 5.10.3 - chain link, openings no more than 2-3/8"
[ ] [ ] [ ] 5.10.4 - no footholds provided
[ ] [ ] [ ] 5.10.5 - pickets \& chain link twists extend above upper horizontal bar
[ ] [ ] [ ] 5.10.6 -railings and posts within enclosure, minimum lateral load 150\#, between $\&$ on top of posts, lateral load of $50 \# / \mathrm{sq} \mathrm{ft}$. Gates self-closing $\boldsymbol{\&}$ self-latching, latch within enclosure \& at least $40^{\prime \prime}$ above grade.
[ ] [ ] [ ] 5.10.7 - Wall of multiple dwelling permitted as part of the enclosure if no direct access to pool

### 6.0 SAFETY REQUIREMENTS

[ ] [ ] [ ] 6.1.1 DEPTH MARKINGS - Location of depth markings - vertical wall and/or edge of deck, maximum \& minimum depths, break point between deep \& shallow, $2^{\prime}$ increments of depth, at least every $25^{\prime}$.
Markings on both sides \& ends of pool. Depth measured 3' from pool wall
[ ] [ ] [ ] 6.1.2 Size of depth markings - 4" numerals followed by "foot depth" or "feet deep" in a color contrasting with the background. Made of durable material and permanently installed.
[ ] [ ] [ ] 6.2 LIFEGUARD CHAIRS - Elevated chairs if pool area greater than 2000 sq.ft. One for each $\mathbf{3 4 0 0}$ sq.ft. Located to eliminate sun glare on water \& positioned for complete coverage of the pool.
6.3 LIFE SAVING EQUIPMENT - as per 6-1.23b (Check at time of inspection)
[ ] [ ] [ ] 6.4 FIRST AID ROOM - Pools greater than 4,000 sq. ft. surface area, area designated and equipped for emergency care
[ ] [ ] [ ] 6.5 EMERGENCY EXIT - emergency exit from pool room, exits clearly marked

### 7.0 LIGHTING, ELECTRICAL, VENTILATION REQUIREMENTS

7.1 Lighting
[ ] [ ] [ ] 7.1.1 Water surface - Overhead illumination at least 30 foot-candles when underwater lighting as specified in 7.1.2 is provided. $\mathbf{5 0}$ foot-candles is required without underwater lighting.
[ ] [ ] [ ] 7.1.2 Underwater - at least 0.5 watts per square foot of pool water surface area
[ ] [ ] [ ] 7.1.3 Decks - at least 50 foot candles at deck level for competition pools
[ ] [ ] [ ] 7.1.4 Emergency lighting - provided at indoor pools and outdoor pools where night swimming is permitted
[ ] [ ] [ ] 7.1.5 Equipment rooms - artificial light to illuminate all chemicals, equipment and supplies

### 7.2 ELECTRICAL

[ ] [ ] [ ] 7.2.1 Compliance with Uniform Code and appropriate regulatory authority. Certificate required for all new work
[ ] [ ] [ ] 7.2.1.1 Overhead clearance - no overhead wires within 20' horizontal distance
[ ] [ ] [ ] 7.2.2 Electrical receptacles- Ground fault circuit interrupters for all lighting \& other circuits in pool area
[ ] [ ] [ ] 7.2.3 Grounding - Underwater lights individually grounded to metal junction box located at least 4' from pool wall

### 7.3 VENTILATION

[ ] [ ] [ ] 7.3.1 Room ventilation - Bathhouses, mechanical equipment rooms, storage areas \& indoor pool enclosures by natural or mechanical means. No draft on bathers, condensation minimized. Minimum 2 air changes per hour for pool areas. Fuel burning equipment installed and vented in accordance with Uniform Code.

Note: Where dehumidification equipment is used, fresh make-up air is to be provided in accordance with ASHRAE Standard 621989: Acceptable Indoor Air Quality, including Addendum 62A-1990 (Uniform Code Reference Standard 49-1). Fresh make-up air at least $0.5 \mathrm{cu} \mathrm{ft} / \mathrm{min} / \mathrm{sq} \mathrm{ft} \mathrm{of} \mathrm{pool} \mathrm{and} \mathrm{deck} \mathrm{area} \mathrm{plus} 15 \mathrm{cu} \mathrm{ft} /$ minute/person for spectators. Condensate from dehumidifiers may not be discharged to the pool recirculation system due to low pH and high bacterial load.

### 8.0 WATER SUPPLY \& WASTE WATER DISPOSAL

[ ] [ ] [ ] 8.1 Water Supply - Water to pool, drinking fountains, lavatories \& showers meets 10NYCRR5
[ ] [ ] [ ] 8.2 Cross Connection Control - All water added through air gap or approved backflow prevention device
[ ] [ ] [ ] 8.3 Fill Spout - Tip of spout shielded, no more than 2" beyond edge of pool \& at least 6" above deck, (under diving board)
[ ] [ ] [ ] 8.4 Sanitary Waste - Municipal sanitary sewer or approved private disposal system
[ ] [ ] [ ] 8.5 Pool Wastewater - Air gapped to sanitary sewer
[ ] [ ] [ ] 8.6 Drinking Fountain - slanting jet with guard \& nonsubmersible opening, convenient location, adequate pressure
[ ] [ ] [ ] 9.0 RECIRCULATION SYSTEMS \& EQUIPMENT - Minimum 6 hour turnover except for wading pools (2 hours) \& special pools in Section 15
[ ] [ ] [ ] 9.1 Equipment Approval - (1) NSF, (2) special tests, (3) pilot plant 9.2 PIPING
[ ] [ ] [ ] 9.2.1 Materials - Nontoxic, corrosion resistant, withstand pressures. Plastic, copper, stainless steel, aluminum or cast iron
[ ] [ ] [ ] 9.2.2 Velocities - Not to exceed: $\mathbf{6} \mathbf{f t} / \mathbf{s e c}$ (suction); $\mathbf{1 0} \mathbf{f t} / \mathbf{s e c}$ (pressure); $\mathbf{3} \mathbf{f t} / \mathbf{s e c}$ (gravity)
[ ] [ ] [ ] 9.3 Drainage \& Installation - Designed \& built to be drained by use of drain plugs, drain valves. Pipe supported to prevent sagging. All suction piping sloped in one direction, preferably towards the pump. Supply \& return lines have plugs or valves for draining below frost line. Provide for expansion and contraction of pipes.
[ ] [ ] [ ] 9.4 Color Coding - In accordance with Table in Section 9.4
[ ] [ ] [ ] 9.5 Overflow Systems - Provide continuous skimming. Make-up water supply to maintain continuous skimming.
[ ] [ ] [ ] 9.5.1 Gutters - Completely around pool, level w/in 1/8". Overflows piped to recirculation system.
[ ] [ ] [ ] 9.5.1.1 Size \& shape - Designed for at least $100 \%$ flow rate. Serve as a handgrip, prevent entrapment of arms \& legs. Permit ready inspection, cleaning and repair.
[ ] [ ] [ ] 9.5.1.2 Outlets - Drop boxes, converters, return piping, flumes designed for $\mathbf{1 0 0 \%}$ flow of recirculation rate.
[ ] [ ] [ ] 9.5.1.3 Surge Capacity - Not less than 1 gal per sq. ft. of pool surface area. Provided in a surge tank, gutters and filters above normal flow line. Excess water to waste. Provide for complete draining of surge.
[ ] [ ] [ ] 9.5.2 Skimmers -On pools $\mathbf{3 0} \mathbf{~ f t . ~ w i d e ~ o r ~ l e s s ~ \& ~ s u r f a c e ~ a r e a ~ l e s s ~ t h a n ~} \mathbf{1 , 6 0 0} \mathbf{~ s q . ~ f t . ~}$
[ ] [ ] [ ] 9.5.2.1 Number - One skimmer for each 400 sq. ft. or less.
[ ] [ ] [ ] 9.5.2.2 Location - Located for effective skimming with minimum interference and short-circuiting.
[ ] [ ] [ ] 9.5.2.3 Flow Rate - At least 30 gallons/minute/skimmer or 3.75 gal per lineal inch of weir. Combined rate less than total recirculation rate.
[ ] [ ] [ ] 9.5.2.4 Control - Automatic weirs operate over at least 4" range. Removable, cleanable basket. Flow control device on each skimmer. Equalizer line meets pump demands, located at least $12^{\prime \prime}$ below bottom of skimmer, automatic valving
[ ] [ ] [ ] 9.5.2.5 Construction - Installed in pool walls, sturdy, corrosion resistant
[ ] [ ] [ ] 9.5.2.6 Handgrips - 2" bullnose coping adjacent to pool wall. Not more than 9" above bottom of skimmer. For grip formed by pool deck sloped away at 1 " per foot.
[ ] [ ] [ ] 9.5.3 Testing - Floatation tests performed to determine and adjust for optimum skimming
[ ] [ ] [ ] 9.6 MAIN DRAIN SYSTEM - At least two main drains, minimum 3' separation, at deepest point.
[ ] [ ] [ ] 9.6.1 Spacing - No more than 20' on centers \& not more than $\mathbf{1 5}^{\prime}$ from side wall
[ ] [ ] [ ] 9.6.2 Grating - Velocity less than 1.5 feet per second through grate openings. Openings not over $1 / 2$ " wide. Covers not removable without tools
[ ] [ ] [ ] 9.6.3 Piping - Designed to carry $\mathbf{1 0 0 \%}$ of recirculation flow, equipped with a valve.
[ ] [ ] [ ] 9.6.4 Minimum Flow - At least $\mathbf{3 0 \%}$ of total recirculation rate through the main drain

### 9.7 Pumps \& Strainers

[ ] [ ] [ ] 9.7.1 Strainers - Provided before pump. Rigid, corrosion resistant material.
Openings no greater than $1 / 8^{\prime \prime}$. Total clear area of openings 4 times the area of the connecting pipe. Quick opening cover. Spare baskets provided. Strainers not required for vacuum filters.
[ ] [ ] [ ] 9.7.2 Pumping Equipment - Adequate capacity for design requirements, including backwashing
Self-priming if installed above water level. Compound gauge on suction side, pressure gauge on discharge side

### 9.8 FLOW MEASUREMENT \& CONTROL

[ ] [ ] [ ] 9.8.1 Flow Measurement - Continuous measuring of flow rate. For sand filters, located to also measure backwash rates. Measure at least $150 \%$ of design flow rate, accurate within $10 \%$. Readily accessible for reading and maintenance. Installed in accordance with manufacturer's instructions.
[ ] [ ] [ ] 9.8.2 Flow Regulation - Automatic rate of flow controller in pump discharge piping. Multiple controllers for multiple pumps or filters

### 9.9 INLETS

[ ] [ ] [ ] 9.9.1 Number - Wall inlets not over 20' apart. One within 5' of each corner and one in each recessed step area.
[ ] [ ] [ ] 9.9.2 Location - Wall inlets at least 12" below water surface. Bottom inlets uniformly spaced not more than $20^{\prime}$ apart with rows of inlets $15^{\prime}$ from side of pool. Pools over $60^{\prime}$ wide must have bottom inlets. Inlets flush with floor.
[ ] [ ] [ ] 9.9.3 Type - Adjustable flow inlet fittings. Directional flow inlets required for skimmer pools.
9.9.4 Testing - Dye testing (crystal violet or equal) should be performed to determine and adjust flow patterns.
[ ] [ ] [ ] 10.0 FILTRATION - One or more filters required. Installed with adequate clearance for inspection and maintenance.
[ ] [ ] [ ] 10.1 SAND FILTERS - Not more than $\mathbf{3}$ gallons/sq. ft./minute for rapid sand filters. High rate sand, no more than $15 \mathrm{gal} / \mathrm{sq} . \mathrm{ft} . /$ minute. Backwash rate 12-15 gallons/sq.ft./minute. Backwash discharge through air gap.
[ ] [ ] [ ] 10.1.1 Filter Media - Graded sand or other media meeting manufacturer's recommendations.
[ ] [ ] [ ] 10.1.2 Accessories - Influent \& effluent gauges, backwash sight glass and air relief valve.
[ ] [ ] [ ] 10.2 Diatomaceous Earth - Maximum 1.5 gallons/sq.ft./minute, both pressure \& vacuum. Except 2.0 with continuous "body feed." Constructed to withstand corrosion and wear.
[ ] [ ] [ ] 10.2.1 Precoating - Piping designed to refilter or waste until uniform body coat is made. Not less than 0.1 pound of diatomaceous earth/sq.ft. of filter area.
[ ] [ ] [ ] 10.2.2 Body Feed Equipment - capable of feeding at least 0.1 pound of diatomaceous earth/sq.ft. of filter area/24 hours.
Filters - Bumping by air or manual means must be provided. Provisions for visual inspection of elements.
[ ] [ ] [ ] 10.2.4 Accessories - VACUUM filters - vacuum gauge and vacuum limit switch interconnected to pump. PRESSURE - backwash sight glass, effluent pressure gauge, influent pressure gauge and air relief valve.
[ ] [ ] [ ] 10.2.5 Backwash - Discharge to sewer through separation tank. Sludge to be disposed in an approved solid waste disposal facility.
[ ] [ ] [ ] $\mathbf{1 0 . 3}$ CARTRIDGE FILTERS - Filtration rate not to exceed $\mathbf{0 . 3 7 5}$ gallons/sq.ft./minute of filter media.
[ ] [ ] [ ] 10.3.1 Cartridges - Complete extra set on hand at user's location
[ ] [ ] [ ] 10.3.2 Accessories - Influent \& effluent pressure gauges \& air relief valve
11.0 DISINFECTION - Continuous disinfection required.
[ ] [ ] [ ] 11.1 DISINFECTANT FEEDERS - automatic, adjustable.
[ ] [ ] [ ] 11.1.1 Construction - sturdy, withstand wear, corrosion \& routine adjustments
[ ] [ ] [ ] 11.1.2 Maintenance - Capable of being easily disassembled for cleaning \& maintenance
[ ] [ ] [ ] 11.1.3 Operation - Design \& construction to minimize stoppage from chemicals to be used
[ ] [ ] [ ] 11.1.4 Safeguards - Antisiphon safeguard.
[ ] [ ] [ ] 11.1.5 Capacity - Capable of supplying up to $10 \mathrm{mg} / \mathrm{l}$ chlorine or equal (per day)
[ ] [ ] [ ] 11.2 GAS CHLORINATION - Not to be used at pools in densely populated areas.
[ ] [ ] [ ] 11.2.1 Location - located down wind from pool. Chlorine storage \& equipment located in separate rooms. The chlorine room located above grade.
[ ] [ ] [ ] 11.2.2 Venting - Ventilation fan with air tight duct beginning near floor, terminating at a safe place outside. Louvered air intake near ceiling. Fan makes one air change per minute. Fan switch located outside door.
[ ] [ ] [ ] 11.2.3 Door - Door to chlorine room opens outward directly to outside not to swimming pool. Door has shatterproof inspection window \& is provide with panic hardware.
[ ] [ ] [ ] 11.2.4 Chlorine Cylinders - Cylinders anchored. Cylinder (in use) on scale, accurate to $1 / 2$ pound. Cylinders not subject to direct sunlight. Inaccessible to the general public.
[ ] [ ] [ ] 11.2.5 Injection Location - Mixing chlorine gas \& water in the chlorine room, except where "vacuum-type" chlorinators are used.
[ ] [ ] [ ] 11.2.6 Backflow - No backflow of water or moisture into the chlorine gas cylinder.
[ ] [ ] [ ] 11.2.7 Breathing Apparatus - Self-contained breathing apparatus designed for gas chlorine, stored in closed cabinet outside the chlorinator room
[ ] [ ] [ ] 11.2.8 Leak Detection - Plastic bottle of ammonia provided for leak detection

### 11.3 HYPOCHLORINATORS -

[ ] [ ] [ ] 11.3.1 Feed - Feed continuous under all pressures
[ ] [ ] [ ] 11.3.2 Solution Tanks - If calcium hypochlorite is used, two solution tanks (1 day capacity each) required.
All chemical containers clearly labeled as to contents.
[ ] [ ] [ ] 11.4 DISINFECTION WITH BROMINE - Obtain prior approval for use of solid stick type bromine \& continuous feed equipment.
[ ] [ ] [ ] 11.5 CHEMICAL FEED EQUIPMENT - Easily cleanable size, design and material. Corrosion resistant.
[ ] [ ] [ ] 11.6 $\mathbf{~ p H}$ Adjustment - Mechanical feed equipment. Other means shall be covered in the safety plan.
11.6.1 Carbon Dioxide
[ ] [ ] [ ] 11.6.1.1 $\mathrm{CO}_{2}$ to be injected to provide a 5 second contact time prior to bather contact.
[ ] [ ] [ ] 11.6.1.2 $\mathrm{CO}_{2}$ cylinders anchored to prevent damage. Inaccessible to the general public.
[ ] [ ] [ ] 11.6.1.3 $\mathrm{CO}_{2}$ units operated by the designated persons listed in the safety plan.
[ ] [ ] [ ] 11.6.1.4 $\mathrm{CO}_{2}$ cylinders stored in a protected enclosure at the exterior of occupied structures. Vented room if in occupied area. One air change per three minutes.
[ ] [ ] [ ]11.7 Automatic device provided to deactivate chemical feeders when no flow in recirculation system.
11.8 Test Kit - Colorimetric tests for free disinfectant residual, pH , total alkalinity \& calcium hardness.

Supply of reagents. Permanent, nonfading standards. Electronic monitoring devices may be used in addition.
11.8.1 Standards - DPD test kit, minimum increments: $0.2,0.4,0.6,0.8,1.0,1.5,2.0 \& 3.0$ for chlorine.

Note: DPD-FAS titration kit is recommended. Provides direct readings to 20.0-30.0 ppm w/o bleaching.)
11.8.2 pH Kit - from 6.8 to 8.2, in 0.2 increments

### 12.0 BATHOUSE

[ ] [ ] [ ] 12.1 GENERAL - Adequate dressing rooms \& sanitary facilities. Part or all of the toilet facilities may be omitted if facilities are within 300 feet $\boldsymbol{\&}$ no more than 1 floor level above or below the pool level.
[ ] [ ] [ ] 12.2 Location - Pass through bathhouse to pool. 1st dressing rooms, 2nd toilets, 3rd showers on route to pool. [ ] [ ] [ ] 12.3 Bathhouse design - Smooth, nonslip floors sloped $1 / 4$ "/ft to drains. No carpet in toilet \& shower areas. Coving between floors \& walls. Dressing cubicle partitions at least 10 " above floor or placed on continuous 4 raised masonry or concrete base. Vented lockers on concrete or masonry base at least 4" above floor.
[ ] [ ] [ ] 12.4 Fixture Requirements - Adequate number of toilet and handwashing facilities provided.
[ ] [ ] [ ] 12.4.1 Plumbing fixtures and installations in accordance with Uniform Code.
[ ] [ ] [ ] 12.5 Suits \& towels - Where provided, must be adequately laundered, disinfected and stored after each use.
[ ] [ ] [ ] 12.6 Foot Baths - Prohibited.
[ ] [ ] [ ] 12.7 Hose bibs - Provided inside bathhouse to permit flushing with 50' hose. Provided with antisiphon device.
13.0 MISCELLANEOUS
13.1 POOL CLEANING SYSTEM - Remove dirt from pool bottom using 50' hose. Vacuum connections in pool wall at least $8^{\prime \prime}$ below water or in skimmers.
13.2 MANUAL - Manual for pool operation, including: filter; pump; other pieces of equipment; drawings; charts; operating instructions; parts list for installation, operation, winterization \& maintenance.
14.0 SPA POOLS - Additional special requirements
[ ] [ ] [ ] 14.1 CONSTRUCTION MATERIAL - Unlined wood tanks prohibited. Materials meet Section 4.0
14.2 Dimensional Design -
[ ] [ ] [ ] 14.2.1 Maximum water depth is $\mathbf{4}^{\prime} \mathbf{0}^{\prime \prime}$. Possible exceptions for instructional, treatment, swimming \& therapy [ ] [ ] [ ] 14.2.2 Maximum depth of any seat 2'0' ${ }^{\prime \prime}$
[ ] [ ] [ ] 14.2.3 Perimeter handholds, no more than 4' apart, where depth is over 3' ${ }^{\prime \prime}$ "
[ ] [ ] [ ] 14.2.3.1 Handholds may be: coping, ledges, raised flanges. Not over 12" above water line.
[ ] [ ] [ ] 14.2.3.2 Ladders, steps, or seat ledges.
[ ] [ ] [ ] 14.2.3.3 A wall mounted railing 12" or less above the water surface.
14.3 STEPS - conform to following:
[ ] [ ] [ ] 14.3.1 Step treads: minimum 10" deep; 12" wide.
[ ] [ ] [ ] 14.3.2 Riser between $7^{\prime \prime} \& 12$ " high, except 14" if 1st riser is seat.
[ ] [ ] [ ] 14.3.3 Step treads have slip-resistant surface.
[ ] [ ] [ ] 14.3.4 At least one handrail at each set of steps.
[ ] [ ] [ ] 14.3.5 Seats or benches may be provided as part of the steps.
[ ] [ ] [ ] 14.4 Ladders - Meet requirements of 5.8.2.
[ ] [ ] [ ] 14.5 Recessed steps - Conform to Section 5.8.3
[ ] [ ] [ ] 14.6 Decks - Conform to Section 5.9, except 50\% of pool perimeter may be waived. No furniture within 3' of spa.
[ ] [ ] [ ] 14.7.1 Heaters comply with Uniform Code
[ ] [ ] [ ] 14.7.2 Maximum temperature thermostatically controlled to $-104^{0} \mathrm{~F}$. High temperature alarm for over $104^{0} \mathrm{~F}$. Alarm rings in spa area \& attendant station. 15 minute interval timer with bell, may be connected to heater or agitation pump.
[ ] [ ] [ ] 14.8 CIRCULATION SYSTEMS - $\mathbf{3 0}$ minute or less turnover. Reduce turbidity to 0.5 NTU's within 4 hours of peak loading.
[ ] [ ] [ ] 14.8.1 Overflow system - Water operating level at rim or weir during use \& nonuse. If used, 1 skimmer for each 100 sq.ft. or less. At least 30 GPM per skimmer. Skimmers meet Section 9.0 standards.
[ ] [ ] [ ] $\mathbf{1 4 . 9} \quad$ Filters - Meets Section 10 and Section 14.8 standards.
[ ] [ ] [ ] $\mathbf{1 4 . 1 0} \quad$ Pumps \& strainers - Complies with Section 9.7.
[ ] [ ] [ ] 14.11 Air Induction Systems - prevent water backup \& electrical shock. Air intakes do not induce contaminants (deck water, dirt) into the spa
[ ] [ ] [ ] $\mathbf{1 4 . 1 2}$ Disinfection - Meets Section 11.0. Minimum free chlorine of $1.5 \mathrm{mg} / \mathrm{l}$. Up to $10 \mathrm{mg} / \mathrm{l}$ for shocking.
[ ] [ ] [ ] 14.13 SAFETY - Warning sign at least 3 sq. ft. (e.g. 18x24") containing caution statements conspicuously posted.
[ ] [ ] [ ] 15.0 SPECIAL PURPOSE POOLS - Prior consultation with Health Department required.
[ ] [ ] [ ] $\mathbf{1 5 . 1}$ White Water Slides - Consists of one or more flumes, plunge pool, recirculation \& chemical treatment facilities.
[ ] [ ] [ ] 15.1.1 Water Depth - Plunge pool minimum depth 3'.
[ ] [ ] [ ] 15.1.2 Slide Flume Terminus - At least 6" below plunge pool water surface. May be at water surface level or maximum 2" above if last 10 ' of flume is level.
[ ] [ ] [ ] 15.1.3 Pump Reservoir - Provided for slide pump intakes. Connected to plunge pool by weir. Capacity of reservoir = 2 x (gpm of filter pumps + slide pumps)
[ ] [ ] [ ] 15.1.4 Flume designed to prevent users from becoming airborne.
[ ] [ ] [ ] 15.1.5 Recirculation Rate - One hour turnover or less.
[ ] [ ] [ ] 15.2 Wave Pools - Shaped \& designed to be operated \& maintained in safe \& sanitary manner.
[ ] [ ] [ ] 15.2.1 Turnover rate 2 hours or less. Recirculation system operated 24 hours per day.
[ ] [ ] [ ] 15.3 Special Purpose Pools - Safe entrance \& exit for persons with physical disabilities.
Handicapped access \& facilities according to Uniform Code (Article 13, Part 1100).
[ ] [ ] [ ] 15.3.1 Pool Entry - Access at shallow end. Pool entry should be by 18 " high block of steps followed by a normal set of pool steps. Hoists or ramps are acceptable. Where removable ramps or steps are used the area beneath the ramp or steps shall be protected to prevent access to swimmers.
[ ] [ ] [ ] 15.3.2 Steps \& Handrails - Step risers 5-3/4" \& tread width 12-18" to allow for sitting. A 32 " high handrail extends 18 " beyond top and bottom step. $22^{\prime \prime}$ handrail for children. $6^{\prime \prime}$ handrail for those who can not stand.
[ ] [ ] [ ] 15.3.3 Wheel chairs, if immersed, must be safe, waterproof and designed for pool use.
[ ] [ ] [ ] 15.3.4 Recirculation - Filtration System - Turnover 4 hours or less. 24 hour recirculation.
[ ] [ ] [ ] 15.4 Moveable Bottom Pools - Hydraulic pool floors safe and maintenance free.
[ ] [ ] [ ] 15.4.1 Inlets - Jet water, self-cleaning system provided. Two sets of inlets at different heights for adequate mixing.
[ ] [ ] [ ] 15.4.2 Floor Movement - Designed to minimize turbulence, safe entrances \& exit for persons with physical disabilities.
[ ] [ ] [ ] 15.4.3 Depth Signs - Depth signs provided, lit \& clearly visible. "NO DIVING" sign provided. Control panel for changing depths accessible only to lifeguards \& pool operator.
[ ] [ ] [ ] 15.4.4 Diving board - For depths, other than design diving depth, the diving board must be chained or secured in an upright position.
[ ] [ ] [ ] 15.4.5 Recirculation - Filtration System - Turnover 4 hours or less. Operated 24 hours per day.
[ ] [ ] [ ] $\mathbf{1 5 . 5}$ Rolling Bulkheads - provided with traction wheels running on pool floor or in pool gutter. Stored in safe manner. Designed to prevent entrapment.
[ ] [ ] [ ] 15.6 Starting Blocks - designed in accordance with nationally recognized competitive design standards. Installed over a minimum water depth of 6 feet.

