

# REVIEW CHECKLIST FOR WATER RECREATION POOL FACILITIES

(Revised 12-2007, previous copies obsolete)

## Montana DPHHS, Food and Consumer Safety

### SPA

This checklist is provided to facilitate department plan review of pool facilities, as required in ARM 37.111.11. Please provide the information requested and complete the appropriate section for the pool facility design. If you answer “no” to a question, explain why, same with “N/A”. Use additional paper where necessary.

**INCOMPLETE APPLICATIONS WILL GENERATE A REQUEST FOR ADDITIONAL INFORMATION, SLOWING THE REVIEW PROCESS. ONCE A COMPLETE APPLICATION IS RECEIVED, REVIEW SHOULD BE COMPLETED IN 30-45 DAYS.**

Plans are to be drawn to scale in sufficient detail to illustrate construction. Plans and specifications for large or municipal projects are to be submitted by the design engineer or architect with their cover letter and be stamped with their seal. Plans shall include:

#### I. SPA DESIGN PLANS

1. One vicinity sketch noting pool in relation to surrounding area and facilities.
2. Both plan and cross sectional views of the pool. Cross sectional views should provide information on the radius of curvature of the pool at shallow, breakpoint and deep ends of the pool. **THESE SHOULD BE TO A STANDARD SCALE.**
3. Detailed view of the equipment room and equipment within it noting sufficient room is provided to access equipment for proper operation and maintenance, also note location of equipment room drains.
4. Dimensional drawings of pool bottom and sidewalls.
5. Specifications on required equipment components. **INCLUDE NSF LISTINGS IF APPLICABLE ON CHLORINATORS, PUMPS, and FILTERS.**
6. Piping schematic showing piping, pipe size, inlets, main drains, overflow channel or skimmers, vacuum fittings and all other appurtenances connected to the pool piping system.
7. Details on barrier construction.
8. Details on decking dimensions noting slope direction and location of deck drains.
9. Other details as listed in this checklist.

#### II. GENERAL SPA POOL INFORMATION

Name of facility \_\_\_\_\_  
Location \_\_\_\_\_

Owner's name \_\_\_\_\_  
Owner's address \_\_\_\_\_  
City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_

Pool contractors name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ ST \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

Design Engineer/Architect name \_\_\_\_\_  
Address of engineer/architect \_\_\_\_\_  
City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_

Plans stamped? Yes \_\_\_\_\_ No \_\_\_\_\_

New pool [ ]; Modification [ ]; Addition [ ]. Outdoor [ ]; Indoor [ ].

Briefly describe the project i.e. – condo, homeowners association, public pool, motel, therapy pool etc.


Name of person completing this form: (please print) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Who should receive the correspondence regarding this plan review: (check all that apply and add contact information if not provided above — name, address, phone number)

Owner

Contractor

Engineer / Architect

Other

**Please submit plans, and this checklist to Jerry Cormier, FCSS, 1371 Rimtop Drive, Billings MT 59105; Ph. 406.247.4449**

**III. SPECIFIC SPA POOL DESIGN CHARACTERISTICS**

Spa shape: Rectangular [ ]; Oval [ ]; Round [ ]; Other [ ].

Spa dimensions: Length \_\_\_\_\_ ft., Width \_\_\_\_\_ ft., or Diameter \_\_\_\_\_ ft.. Maximum spa depth: \_\_\_\_\_ .

Total surface area \_\_\_\_\_ ft.<sup>2</sup> spa pool capacity \_\_\_\_\_ gallons. Is this figure provided on plans? \_\_\_\_\_

Specify maximum bather capacity (maximum # of people at one time). \_\_\_\_\_ people. (1 person per 10 sq. ft. of surface area)

Using a bather displacement 20 gallons, compute volume of water in spa to be displaced and still allow proper operation of the overflow operating system (skimmer or overflow trough with balancing tank). \_\_\_\_\_

Name of public water supply serving this pool facility? \_\_\_\_\_.

Spa surface structure material

Painted concrete [ ];Plaster [ ];Fiberglass[ ];Tile[ ];Painted Metal[ ]; Stainless Steel [ ] Other [ ] (please specify)\_\_\_\_\_.

Spa Color (must be light color): \_\_\_\_\_

Underwater Seat Benches when provided shall not be over 20" below the waterline \_\_\_\_\_ in.; shall be visually set apart from the surrounding pool surface by either a contrasting color or a visual image (specify) \_\_\_\_\_; and provided with slip-resistant surfaces.

Spa Pool decking construction material: (specify) \_\_\_\_\_;

Type of non-slip finish provided \_\_\_\_\_.

Is slope of deck drainage noted on plans? \_\_\_\_\_. Note rate of slope \_\_\_\_/ft. (Min 1/4 "/ft, max 1/2 "/ft)

Spa pool decking: Note decking provided around perimeter of spa. Note if spa is elevated above the decking. The deck of Spas shall be a minimum of 4ft wide and shall extend around at least 50% of the unit.

Barrier Protection:

Note minimum barrier height \_\_\_\_\_ (inches, feet). Note type of construction of barrier with information on maximum opening widths to prevent means for access.

Height to access latch is \_\_\_\_\_ inches. Please specify barrier construction.

Is gate or door designed to be self-closing, self-latching? \_\_\_\_\_. Are gates or doors lockable for periods of non-use?\_\_\_\_\_.

Handrails: Provide specifications and plans for handrails.

Stairs: Are locations of ladders or steps noted on the drawings? \_\_\_\_\_

Where stairs are provided note: Height of steps \_\_\_\_\_" (max 12" height); width of steps \_\_\_\_\_".

Location of handrail on drawing?\_\_\_\_\_.

Is a contrasting color provided on stair tread edge and specified in the plans? \_\_\_\_\_

Recirculation system:

Flow rate \_\_\_\_\_ gpm. Turnover rate for this spa is \_\_\_\_\_ minutes.

Provide appropriate calculations and assumptions to determine both pump rates:

Pump capacity is designed to produce \_\_\_\_\_ gpm

Is copy of pump curve provided in specifications? \_\_\_\_\_. Is pump above \_\_\_\_\_ or below \_\_\_\_\_ pool water level? What is the Total dynamic head? \_\_\_\_\_

Pump & strainer: Is a pump strainer provided?\_\_\_\_\_ Is any valving needed and shown to isolate strainer for routine maintenance? Does pump have self-priming capability if above pool water level? \_\_\_\_\_

Is line size of recirculation system provided on the drawings, with location of all valves to provide for proper maintenance and use of equipment?\_\_\_\_\_.

Is the piping schedule 40 \_\_\_\_\_ Schedule 80 \_\_\_\_\_

Are inlets and outlets of pool located on the plans?\_\_\_\_\_

Number of inlets? \_\_\_\_\_. Flow capacity designed for each inlet is \_\_\_\_\_ gpm.

Number of outlets? \_\_\_\_\_.

Skimmer flow rate: \_\_\_\_\_ gpm.

Explain how make up water will be added to spa to ensure proper operation of skimmers: \_\_\_\_\_

No pipe furnishing water for the make-up supply shall be physically connected to the recirculation system regardless of valve arrangement

Note provisions for routine draining of the entire spa volume? \_\_\_\_\_

Are a minimum of two main drains indicated provided and indicated on the plans? \_\_\_\_\_

Are any of the main drains provided on the vertical wall? If so, are provisions made for these drains to prevent hair entrapment? Please specify. \_\_\_\_\_

Are the drain(s) anti-vortex design Yes\_\_\_\_ No\_\_\_\_ Do the drain covers meet the ASME/ANSI A112.19.8M standard for suction entrapment and is the drain cover listed as meeting this standard Yes\_\_\_\_ No \_\_\_\_

**Provide listed ASME documentation for this drain cover.**

Specify number of square inches of opening on each main drain. \_\_\_\_\_ in.<sup>2</sup>.

Specify maximum width of openings on main drain cover. \_\_\_\_\_

Determine maximum velocity through main drains assuming 100 % of maximum pump flow is going through the drains. \_\_\_\_\_fps

Maximum pipe flow through suction or valved discharge lines is \_\_\_\_\_

Maximum pipe flow through discharge lines, downstream from any valved areas is \_\_\_\_\_ fps

Show calculations on pipe velocities here (use separate paper if necessary):

Is the circulation system color-coded or labeled as required in the rules? \_\_\_\_\_

Equipment room:

Does drawing of equipment room adequately demonstrate that there is a minimum three foot working area to access equipment for proper operation?\_\_\_\_\_. Are drains specified in equipment room?\_\_\_\_\_, lighting (min 20 ft/cdl)\_\_\_\_\_, ventilation\_\_\_\_\_, Is room lockable?\_\_\_\_\_.

TREATMENT SYSTEM:

Filter: Type: DE\_\_\_\_, Sand\_\_\_\_, Cartridge\_\_\_\_, Other? (specify)\_\_\_\_\_.

Specify type of filter and note if it is **NSF approved**?\_\_\_\_\_.

**Provide documentation for Filter.**

Number of square feet per filter is \_\_\_\_\_ SF. Number of filters used \_\_\_\_\_.

Maximum filter application rate \_\_\_\_g/SF,

Are two gauges provided to measure differential pressure across the filter?\_\_\_\_\_. Are locations noted in plans?\_\_\_\_\_.

If cartridge filter systems are being used it is necessary to specify that filter bypass valves will be sealed in permanently closed position.

Note the range and location on plans of flow-meter. \_\_\_\_\_

Are means provided for air relief on filters? \_\_\_\_\_.

Is a sight glass provided on the back wash discharge line? \_\_\_\_\_

If using a separation tank with a DE filter, are instructions provided to warn operator to release air prior to opening?

All waste must be disposed of by public sewage system or by sewage disposal system constructed and operated in accordance with Title 75, chapter 6, MCA and ARM Title 17, chapter 38, subchapter 1

No direct connections to sewers shall be permitted, spa drains to sewers shall be air-gapped at point where any sewage can enter the pool or spa piping.

Disinfection: Type: Chlorine [ ]; Bromine [ ]; Other [ ] (specify)\_\_\_\_\_.

Note type of material being fed: gas [ ]; liquid [ ] (specify)\_\_\_\_\_; solid [ ] (specify)\_\_\_\_\_.

Note number of pounds of disinfectant able to be added per day with the feeding equipment. \_\_\_\_\_ pounds/day.

Note type of feeding equipment to be installed.\_\_\_\_\_.

If using liquid or solid feed material, note that it is **NSF approved**.\_\_\_\_\_.

**Please include documentation for feeding equipment.**

**If using gas chlorine, the equipment must meet all federal and state guidelines for the use of chlorine.**

Chemical feeders:

Are feeders provided for controlling pH?

Specifications on the feeding equipment attached?\_\_\_\_\_. Is an Air Gap provided to protect against back-siphonage into the water supply system

Ventilation: On indoor pools, specify facility will be installed in conformance with accepted standards for pool facilities. Show rate of air exchange. Must meet common guidelines such as ANSI/IAF-9 and other ANSI standards.

Testing equipment: Provide information on type of testing equipment provided in conjunction with water quality and chemistry control of pool water (DPD test kit required, preferred type is titration method testing). Does testing equipment provide for testing cyanuric acid if it is used? \_\_\_\_\_

Chemical storage:

Provide information on placement of chemicals, to ensure storage is in conjunction with manufacturer's recommendations.

Restrooms, locker rooms & plumbing fixtures:

1. Note location and size of locker room facility and location and number of plumbing fixtures required.
2. Note provisions to prevent water temperature in showers from exceeding 110 degrees F.
3. Note location of drains within facility and type of non-slip surface on floor.

Lighting:

1. Provide information on minimum lighting to be provided around the pool & deck, locker room & equipment room.
2. In facilities with locker rooms and walkway areas, note protective shielding provided on lights.
3. Note specifications on emergency lighting on indoor pool facilities.

Emergency equipment:

Note equipment provided including:

- Phone or other emergency medical service response means. (Indicate location)
- First aid kit.
- Backboard with head restraint
- Reaching poles
- Life hook.
- Rescue tube or buoy

**An emergency shut off switch to turn off all spa pool pumps (within 20 ft of spa) with audible alarm when switch is turned off must be provided. Is shutoff switch shown on plans? \_\_\_\_\_ (y/n)**

Signs: Note provisions to provide signage in conformance with regulation.

**Provide a copy of the proposed sign(s).**

**PLEASE NOTE THAT MONTANA LAW DOES NOT ALLOW CHILDREN UNDER 5 TO USE A SPA, AND THE SIGNAGE MUST INDICATE THIS.**

Plans for food service: If planned, are facilities in compliance with requirements of FCSS? \_\_\_\_\_

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DEPARTMENT USE ONLY

Received \_\_\_\_\_ Reviewed by: \_\_\_\_\_

Letter(s) sent \_\_\_\_\_

Approval \_\_\_\_\_

Copy of approval letter attached? \_\_\_\_\_

Comments:

*JC/mf/pools/forms/MT SPA CHECKLIST (Rev. 10-2007)*