# PLAN REVIEW CHECKLIST FOR POOLS, SPAS AND OTHER WATER FEATURES

Food and Consumer Safety

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This checklist is provided to facilitate Department plan review of pools, spas and other water features (pools) as required in the Administrative Rules of Montana (ARM) 37.115.308. (appendix 1) In addition to this form the following is needed for a complete application:

# ALL PLANS MUST BE STAMPED BY A MECHANICAL/STRUCTURAL *ENGINEER* LICENSED IN THE STATE OF MONTANA

[ ] One vicinity drawing noting pool in relation to surrounding area and facilities.
[ ] 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.
[ ] 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.
[ ] Dimensional drawings of pool bottom and sidewalls.
[ ] Specification sheets for proposed equipment. INCLUDE NSF CERTIFICATION ON CHLORINATORS,
PUMPS, and FILTERS.
[ ] 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.
[ ] Details on barrier construction ARM 37.115 Subchapter 6
[ ] Details on decking dimensions noting slope direction and location of deck drains.
[ ] Other details as listed in this checklist.
[ ] Plan review fee as outlined in ARM 37.115.311 (including pre-opening inspection fees) (appendix 2)

UPON RECEIPT OF A COMPLETE APPLICATION THE REVIEW SHOULD BE COMPLETED WITHIN 30 DAYS, IF ALL QUESTIONS HAVE BEEN ADDRESSED. APPROVAL IS VALID FOR 12 MONTHS.

### **GENERAL INFORMATION**

Name of facility			
Location (city, county)	1		
			Phone
Pool contractor's nam	e		
Address			
			Phone
email:			
Design Engineer/Archi	tect name		
City	St	Zip	Phone
email:			
Pool [ ]; Spa [ Briefly describe the pr			odification [ ]; Addition [ ];Outdoor [ ]; Indoor [ ]
Name of person comp	leting this form: (	please print)	
Signature	<del> </del>		Date
	•		nis plan review: (check all that apply and add contact ess, phone number, email)
Owner Contra	actor Enginee	r / Architect _	Other

#### **SPECIFIC SWIMMING POOL DESIGN CHARACTERISTICS**

Pool shape: Rectangular [ ] Oval [ ] Kidney [ ] Other
Pool dimensions: Length; Width; Pool Depth range: shallow, deep
Pool surface area ft.²; Area < 5 ft. deep ft.²; Area > 5 ft. deep ft.²
Pool volumegallons.; Bather Load is people.
Name of public water supply serving this pool facility Use well water [ ].
Pool surface construction material: Painted concrete [ ];Plaster[ ];Fiberglass[ ];Tile[ ];Painted Metal[ ];
Stainless Steel [ ] Other [ ] (please specify);
Pool color (must be light color)
Pool bottom slope: ARM 37.115.506
Slope of pool bottom from: minimum to 5 ft. depth (1:12 max.); 5 ft. to maximum (1:3 max.)
Decks; ARM 37.115.517 ► 519
Minimum width of deckingft. (4 ft. min., at least 50% of spa perimeter must be 4 ft.);
Pool decking construction material; Type of non-slip finish provided:
Is slope of deck drainage noted on plans?; Rate of slope/ ft. (1/4 in./ft. to 1/2 in./ft.)
Are deck drains and specifications noted on plans?
Barriers; ARM 37.115 Subchapter 6
Are barriers provided?If no barriers are provided how is pool access controlled in periods of non-use?
; Minimum barrier height (feet, inches
Is gate or door designed to be self-closing, self-latching and open outwards?
Are gates or doors lockable for periods of non-use?; Height to latch is inches.
Stair specifications; ARM 37.115.703
Are all steps; easily cleanable, impervious, and corrosion resistant?; sloped to drain?; equipped with slip-resistant treads?; width of treadsin. (minimum 10 in.); leading edge contrasting color with the color of the steps and pool floor? (one inch wide, entire width: NOTE: also required on leading edges of all underwater benches); Height of stair risersin. ( must be uniform and between 7 in. and 12 in., bottom riser height can vary to meet pool floor); noted on plans?
Handrails; ARM 37.115.707
Are handrail and ladder specifications accurately noted on plans? (include spec. sheets)
Do handrails on stairs extend from the pool coping and within 18 in. of last step riser?
Diving boards; ARM 37.115 Subchapter 8
Does the facility have a diving board?; Make and Model(include spec. sheet)
Height of board above water; Length of Board; Depth of diving well

# Pool facilities; ARM 37.115 Subchapter 9 Is there adequate facilities (dressing rooms, toilets, showers) for your projected bather load? Is the location of the baby changing table noted on the plans? Turnover rate; **ARM 37.115.1002** Pump is; above [ ] below [ ] pool water level; How many feet? Piping is schedule 40 [ ] 80 [ ] Are piping sized noted on plans? ;Total Dynamic Head (TDH) ft. (include pump curve and spec. sheet with plans); turnover rate does not exceed maximum indicated in table 5 \_\_\_\_\_ **SHOW CALCULATIONS HERE:** Pump; ARM 37.115.1005 Strainer provided before pump? ; Does pump have self-priming capability if above pool? \_\_\_\_\_ Does pump have shut off valves before and after the pump if it is below pool level? Inlets; ARM 37.115.1006 Inlet location noted on plans? ; Number of inlets ; flow capacity of each inlet gpm; are there inlets within 5 ft. of every corner? \_\_\_\_\_; inlets no more than 15 ft. apart \_\_\_\_\_; Inlets no closer than 5 ft. from skimmers \_\_\_\_\_; auto fill inlets noted on plans \_\_\_\_\_. Outlets; ARM 37.115 1007 Are a minimum of two main drains noted on plans? (minimum of 3 ft. apart); main drain covers are VGBPSSA approved (include spec. sheets); water velocity through drain does not exceed 1.5 fps. ; Gutter [ ] Skimmer [ ] flow rate \_\_\_\_\_ gpm (include spec. sheets); Surge tank \_\_\_\_\_ (if yes, note on plans); equalizer lines noted on plans \_\_\_\_\_ (include spec. sheets) Filtration equipment Arm 37.115.1011 Type; DE [ ] sand [ ] cartridge [ ]; surface area \_\_\_\_\_ft²; filter media rate \_\_\_\_\_gpm/ft²; NSF approved \_\_\_\_\_; flow meter noted on plans \_\_\_\_\_; influent & effluent pressure gauges noted on plans \_\_\_\_\_; sight glass on back wash line \_\_\_\_\_. Disinfectant and chemical feeders ARM 37.115.1016 Type of sanitizer is; Chlorine [ ] Bromine [ ] Other [ ]; specify type \_\_\_\_\_\_; ORP [ ]; type of chemical feeding equipment \_\_\_\_\_ (must be NSF approved; include spec. sheets) Equipment room **ARM 37.115.1021**

Floor drain noted on plans \_\_\_\_\_; secured from unapproved access \_\_\_\_\_; active ventilation \_\_\_\_\_.

### **APPENDIX 1**

## **ARM 37.115.308 -- SUMMARY**

An inadvertent failure of the Department to reject a specification that does not meet the requirements of these rules does not excuse the licensee or license applicant from its duty to meet the standards set herein

Completed Plan Review Checklist
Plan review fee as outlined in ARM 37.115.311
Detailed plans (plan view, cross sections, vicinity, equipment room)
Detailed piping schematic (configuration, pipe sizes, valves, inlets, outlets)
Details of how make up water will be added, and source
Details on how backwash water will be disposed to waste
Detailed plans of bathhouse and other sanitary facilities
Details on barrier construction
Cross section of stair details and handrails
Cross section of main drain
Estimated bather load of all pools, spas and other water features
Specification sheets for all required equipment
Specifications for pool and deck materials
Specifications on slopes of pool bottom and decking
Specification sheets for suction outlets (VGBPSSA compliance)
Calculations for surface area
Calculations for volume
Calculations for turnover rate
Calculations for flow rate
Calculations for total dynamic head
Calculations on pump curve
Other details specifically requested by the Department

## **APPENDIX 2**

#### **ARM 37.115.311 FEE TABLE**

Type	Design Volume	Plan Review Fees	Pre-opening Inspections
			and Interim Visit Fees
Pool, Spa, Wading Pool, Spray	Less than		
Attraction, Lazy River, Others	4,000 gallons	\$200	\$60
Pool, Spa, Wading Pool, Spray	4,000 - 9,999		
Attraction, Lazy River, Others	gallons	\$400	\$80
Pool, Spa, Wading Pool, Spray	10,000 gallons		
Attraction, Lazy River, Others	or more	\$600	\$100
Review Fees for a Substantial			
Modification to Existing Filtration			
or Disinfection systems		\$75	