

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

CLASSIFICATION ORDER 1857

October 3, 2006

Project No. C-4579

	<u>Class</u>	<u>Subclass</u>	<u>Art Unit</u>	<u>Ex'r Search Room No.</u>
Abolished:	210	167-170, 172	1724	RND – B15
Established:	210	167.01-167.09, 167.1, 167.11- 167.19, 167.2, 167.21-167.29, 167.3, 167.31, 167.32, 170.01- 170.09, 170.1, 170.11, 172.1- 172.6	1724	RND-B15
		Cross-Reference Art Collection 931	1724	RND-815

The following classes are impacted by this project:

Class(es): 4, 37, 52, 62, 99, 119, 123, 137, 174, 184, 209, 405, 422

This order includes the following:

- A. CLASSIFICATION MANUAL CHANGES
- B. LISTING OF PRINCIPAL SOURCE OF ESTABLISHED
AND DISPOSITION OF ABOLISHED PAGES
- C. CHANGES TO THE U.S. – I.P.C. CONCORDANCE
- D. DEFINITION CHANGES

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OCTOBER 2006

600	PROCESSES	637	..Including regulating pressure to control constituent gradient at membrane or to prevent rupture of membrane
601	.Treatment by living organism	638	..Including ion exchange or other chemical reaction
602	..Including plant or animal of higher order	639	..Including prior use of additive (e.g., changing pH, etc.)
603	..Including collecting or storing gas (e.g., fuel, carbon monoxide, etc.)	640	..Passing through membrane in vapor phase
604	...And reusing oxidant	641	..Utilizing plural diverse membranes
605	..Anaerobically, with subsequently aerobically treating liquid	642	..Extracting water from brine utilizing liquid/liquid solvent or colloidal extraction
606	..Adding enzyme or releasing same by treating microorganism	643	..Utilizing liquid membrane (e.g., emulsion) in liquid/liquid solvent or colloidal extraction
607	..Dividing, treating, and recombining liquid	644	..Diffusing or passing through septum selective as to material of a component in liquid/liquid solvent or colloidal extraction
608	..Regulating floating constituent	645	...Biological fluid (e.g., blood, urine, etc.)
609	..Including dewatering sludge	646	...Hemodialysis
610	..Including adding ancillary growth medium for microorganism	647	....Maintaining critical concentration(s)
611	...For or with specific microorganism	648	...Including regenerating or rehabilitating the extracting liquid in liquid/liquid solvent or colloidal extraction
612	..And regulating temperature during biological step	649	..Diffusing or passing through septum selective as to material of a component of liquid
613	...Digesting sludge	650	..Filtering through membrane (e.g., ultrafiltration)
614	..Controlling process in response to stream constituent or reactant concentration	651	....Removing specified material
615	..Utilizing contact surfaces supporting microorganism (e.g., trickling filter, etc.)	652	....Hyperfiltration (e.g., reverse osmosis, etc.)
616	...Particulate media	653	....Utilizing specified membrane material
617	....In bed form	654	.....Synthetic resin
618	....And rehabilitating or regenerating same	655	.....Cellulosic
619	...Rotating contactor	656	.Chromatography
620	..Aerobic treatment	657	..Utilizing rotating column
621	...Recirculating to prior step	658	..Utilizing paper or thin layer plate
622	....Of separated liquid	659	..Including liquid flow diversion
623	....Of sludge or separated solid	660	.Ion exchange or selective sorption
624	....And returning to or withdrawing from diverse treating zones	661	..By passing through suspended bed
625	....Treating outside mainstream	662	..And liquid testing or volume measuring
626	....To mainstream oxygenation (e.g., activated sludge, etc.)	663	..Including diverse separating or treating of liquid
627	.....Utilizing specific oxidant, other than air alone (e.g., oxygen-enriched air, ozone, peroxide, etc.)	664	...By distilling or degassing
628	.....Utilizing mechanical aeration means	665	...By making an insoluble substance or accreting suspended constituents
629	...And internally circulating the liquid	666	....Utilizing organic agent
630	...And anaerobic treatment	667	....Utilizing aluminum, calcium, or iron containing agent
631	..And additional treating agent other than mere mechanical manipulation (e.g., chemical, sorption, etc.)	668	...By chemically modifying or inhibiting dispersed constituent
632	.Treating by enzyme	669	...Prior to ion exchange or sorption
633	.Extracting utilizing solid solute		
634	.Liquid/liquid solvent or colloidal extraction or diffusing or passing through septum selective as to material of a component of liquid; such diffusing or passing being effected by other than only an ion exchange or sorption process		
635	..Liquid/liquid or gel type (i.e., jellylike) chromatography		
636	..Including cleaning or sterilizing of apparatus		

	PROCESSES	714	..Seeding
	.Ion exchange or selective sorption	715	...Utilizing sludge or floc blanket
670	..Including rehabilitating or regenerating exchange material or sorber	716	..Including step of manufacturing inorganic treating agent
		717	...In situ
671	...Of oil sorber material	718	..Including degassing
672	...Fractional, selective, or partial type	719	..Including chemical reduction
673	...Utilizing gas, water, or chemical oxidizing or reducing agent	720	...Of chromium material
674	...Utilizing organic regenerant	721	..Including oxidation
675	...Rehabilitating or regenerating in diverse zone or chamber	722	...Of iron or manganese material
676	....Continuous cyclic process	723	..Utilizing precipitant, flocculant, or coagulant, each with accelerator or with each other or plural precipitants, flocculants, or coagulants
677	...Using conserved or recirculated fluid		
678	...Including liquid flow direction change	724	...Regulating pH
679	..Utilizing exchange or sorber material associated with inert material	725	...Utilizing organic precipitant
		726	...Sequential introduction
680	...Including oil sorber	727	...Including organic agent
681	..Removing ions	728	...Including organic agent
682	...Radioactive	729	..Utilizing organic precipitant
683	...Anions	730	...From natural source or chemical modification thereof
684	...Metal complexed (e.g., chromate, ferricyanide, chlorplatinat, etc.)	731	....Starch
		732	...Synthetic polymer
		733	....Acrylic
685	....Including cation	734	....Nitrogen containing (e.g., amine, azo, etc.)
686	....Utilizing mixed bed or amphoteric material	735	....Nitrogen containing (e.g., amine, azo, etc.)
687	...Calcium or magnesium (e.g., hardness, water softening, etc.)	736	....Derived from alkyl halide or epihalohydrin reactant
688	...Heavy metal		
689	..Sorbing water from diverse liquid	737	..Including temperature change
690	..Sorbing organic constituent	738	..Including agitation
691	...From aqueous material	739	..Including controlling process in response to a sensed condition
692	....Utilizing synthetic resin		
693	....Oil removed	740	..Density or specific gravity sensing
694	...Utilizing activated carbon	741	..Pressure sensing
695	..Using magnetic force	742	..Temperature sensing
696	..Preventing, decreasing, or delaying precipitation, coagulation or flocculation	743	..pH sensing
		744	..Level sensing
		745	..Turbidity or optically sensing
697	..Utilizing inorganic phosphorus agent	746	..Electrical property sensing
698	..Utilizing organic agent	747	..Including geographic feature (e.g., drainage ditch, septic, pond)
699	...Phosphorus containing		
700	...Nitrogen containing	748	..Utilizing electrical or wave energy (directly applied to liquid or material being treated)
701	..Acrylic polymer		
702	..Making an insoluble substance or accreting suspended constituents	749	..Chemical treatment
703	..Effecting flotation	750	..Including degassing
704	...Including chemical addition (with or without bouyancy gas)	752	..Plural spaced feedings
705	....Chemically specified precipitant, coagulant, or flocculant	753	..Utilizing halogen or halogen containing material
706	....And significant characteristic of the bouyancy gas, other than mere addition of same	754	...Chlorine or bromine containing
		755	...Organic
		756	...Hypochlorite
707	.....Generating gas in situ	757	..By chemical reduction
708	..Including emulsion breaking	758	..By oxidation
709	..Controlling process in response to stream condition	759	...Utilizing peroxy compound (e.g., hydrogen peroxide, peracid, etc.)
		760	...Utilizing ozone
710	..Treating the insoluble substance		
711	...For recovery of a treating agent		
712	..Including recycling		
713	...Of separated solids		

Title Change
* Newly Established Subclass

@ Indent Change
& Position Change

CLASS 210 LIQUID PURIFICATION OR SEPARATION

OCTOBER 2006

PROCESSES	808	..Including specified pressure change
.Chemical treatment	85	WITH ALARM, INDICATOR, REGISTER, RECORDER, SIGNAL OR INSPECTION MEANS
..By oxidation		
761 ...Liquid phase high temperature and pressure (e.g., "wet air", etc.)	86	.Material level or thickness responsive
762 ....Catalytic	87	.Responsive to fluid flow
763 ...Catalytic	88	..Meter-controlled cyclic systems
764 ..Destroying microorganisms	89	..With time control
765 ..Including liquid recirculation	90	.Fluid pressure responsive
766 ..Including temperature change	91	.Position or extent of motion
767 .Separating	92	.Test valve
768 ..Including treating separated solids	93	.In effluent conduit
769 ...Destroying cake or solid component	94	.Transparent
770 ...Including drying (e.g., by squeezing or heating, etc.)	95	..Sight glass
771 ....By gas contact	96.1	CONSTITUENT MIXTURE VARIATION RESPONSIVE
772 ...Washing with a fluid other than the prefilt	96.2	.With membrane
773 ..Including preliminary conversion to liquid state	97	FLOW, FLUID PRESSURE OR MATERIAL LEVEL, RESPONSIVE
774 ..Including temperature change	98	.Fluid current controlled cyclic system
775 ...Thermal diffusion	99	.Prefilt diverting to drain by prefilt accumulation
776 ..Skimming	100	.Flow cut-off requiring reset
777 ..Including precoating filter medium with filter aid	101	.Proportionate feed means
778 ...With or by addition to prefilt	102	.Programming plural units
779 ..Discharging residue to prefilt	103	.Diverse sensing means
780 ..Including movement of filter during filtration	104	..Responsive to material level
781 ...Centrifugally extracting	105	..With control for auxiliary liquid inlet
782 ....Blood	106	.Filter cleaning
783 ...Rotating belt	107	..Rotary movement of filter or mechanical cleaner
784 ...Rotating drum	108	..Backwash or blowback
785 ...Cleaning filter utilizing wave energy (e.g., vibrating, pulsating, etc.)	109	.Discharge of treated material
786 ...Of particulate bed (e.g., fluidized or moving bed, etc.)	110	..With separator inlet control
787 ..Cyclonic, or centrifugal (e.g., whirling or helical motion or by vortex, etc.)	111	..Responsive to prefilt accumulation or filter clogging
788 ...Introducing liquid tangentially	112	..Heavier constituent
789 ...Isolating layer	113	..By weight of solids
790 ..Dividing and recombining	114	..By treated liquid accumulation
791 ..Rehabilitating or regenerating filter medium	115	..With lighter constituent outlet control
792 ...Particulate bed	116	..Permitted by filtrate accumulation
793 ....Reverse flow	117	..Check valve controlled
794 .....Including addition of diverse fluid	118	..Non-closing, e.g., sand valve
795 .....Expanded bed	119	..Float type
796 ....Includng mechanical agitation	120	.Vent control
797 ...By diverse fluid	121	.Float
798 ...Reverse flow	122	..Controls movable separator
799 ..Filtering immiscible liquids	123	..Controls valve
800 ..Utilizing gravitational force	124	..Controls flow between two separators
801 ...Including change of mainstream flow direction	125	..Separator between float and valve
802 ...Utilizing parallel separation passages	126	..Float in separate rehabilitating fluid tank
803 ...Including specified feature of settled solids removal	127	..Additional fluid inlet control
804 ...And additional diverse separation	128	..Float in receptacle other than that of separator
805 ..And recirculating liquid	129	...In flow between inlet and separator
806 ..Plural separating	130	.Fluid pressure responsive by-pass
807 ..Utilizing particulate bed	131	..By movement of separation medium

Title Change
* Newly Established Subclass

@ Indent Change
& Position Change

CLASS 210 LIQUID PURIFICATION OR SEPARATION

OCTOBER 2006

	FLOW, FLUID PRESSURE OR MATERIAL LEVEL, RESPONSIVE	* 167.18	...Skimmer arm at skimmer opening at water surface
	.Fluid pressure responsive by-pass	* 167.19	...Mesh or screen filter at or near water surface
132	..With additional separation or treating means	* 167.2	...Having floating means
133	..In inlet and outlet closure header	* 167.21	..For aquarium
134	.Plural elements controlled	* 167.22	...Separator using living organism
135	..Including manually controlled element	* 167.23	...Separator or part thereof associated with bottom of aquarium (e.g., means positioned under gravel, etc.)
136	.Check valve		
137	.Maintaining stream pressure or flow		
138	WITH TIME CONTROL		
139	.Of additional fluid	* 167.24	...Having solid sorbent
140	..Preparation for treating operation	* 167.25	...Particulate filter or particulate sorbent
141	WITH PROGRAM ACTUATOR	* 167.26	...Separator with aerator
142	.Plural treating units or sections sequentially controlled	* 167.27	...Separator mounted on top edge of aquarium wall
143	AUTOMATIC CONTROL		
144	.Responsive to vibration or unbalance	* 167.28	..For cooking oil system
145	.Responsive to rotation	* 167.29	..Having magnetic treating means
146	..Controlled cover latch	* 167.3	..With means to add treating material
147	..Controlled discharge means	* 167.31	..Plural separators
148	.Container movement operated	* 167.32	..With heating or cooling means
149	.Thermal	* 170.01	.Geographic
150	WITH GAS-LIQUID SURFACE CONTACT MEANS	* 170.02	..For fishpond
151	.With separator	* 170.03	..For stormwater treatment (e.g., rainwater runoff, stormsewer treatment, etc.)
153	STRUCTURAL INSTALLATION		
154	.Flume stream type	* 170.04	..For excavating means
155	..Plural or diverse screens	* 170.05	..Floating means
156	..Fluid stream or residue operated	* 170.06	..Separator with aerator
157	...Revolving cylindrical strainer	* 170.07	..Groundwater
158	..With cleaner for movable strainer	* 170.08	..Septic tank or waste liquid treatment system
159	..With cleaner and means to remove residue therefrom	* 170.09	..Body of freshwater (e.g., pond, lake, reservoir, etc.)
160	..Endless belt strainer		
161	..Revolving strainer	* 170.1	..Surface flowing freshwater (e.g., stream, river, ditch, canal, etc.)
162	..Fixed strainer		
163	.Grated inlet surface drain	* 170.11	..Body of saltwater (e.g., sea, ocean, etc.)
164	..Flat grating at surface level		
165	..With subsurface weep means	171	.Machinery
166	..Concentric guard ring or rib	* 172.1	.Separator ancillary to storage tank
* 167.01	.Closed circulating system	* 172.2	..Submerged separator
* 167.02	..For lubrication system	* 172.3	...On pump suction intake
* 167.03	...Having magnetic treating means	* 172.4	...Filter supported by frame (e.g., bag shaped filter in fuel tank for engine, etc.)
* 167.04	...Plural separators		
* 167.05	...Having bypass line	* 172.5	...Having tethering means
* 167.06	...With heating or cooling means	* 172.6	..In tank inlet
* 167.07	...Evaporator	173	COMMUNITING
* 167.08	...Separator for transmission system	174	.Cylindrical strainer
* 167.09	...With separator cleaning means	175	WITH HEATER OR HEAT EXCHANGER
* 167.1	..For swimming pool or spa (e.g., skimmer, etc.)	176	.Thermal diffusion
* 167.11	..With means to add treating material	177	.With treating fluid addition
* 167.12	...Separator external to swimming pool or spa	178	..With mechanical agitator or movable separator
* 167.13	...Particulate solid filter	179	.With mechanical agitator or movable separator
* 167.14	...With separator cleaning means (e.g., backwash means, etc.)	180	.Vapor or gas removal
* 167.15	...Separator for use on swimming pool or spa bottom and separator for use at water surface	181	.Flow line connected in series with distinct separator
* 167.16	...Separator for use on swimming pool or spa bottom	182	.Diverse separators
* 167.17	...Debris collecting bag	183	..Common casing coaxial with heater

Title Change
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@ Indent Change
& Position Change

CLASS 210 LIQUID PURIFICATION OR SEPARATION

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	WITH HEATER OR HEAT EXCHANGER	225	.With residue removal or liquid agitation
184	.For filter		
185	..Imbedded or between filter media	226	.With porous filler
186	..External of casing	227	.Medium clamped in joint
187	.Within gravitational separator	228	..With spacing frame
188	WITH GAS SEPARATOR	229	..Imperforate base recess in plate
189	PLURAL CHAMBERS WITH MOVEMENT OF GRANULES THEREBETWEEN	230	.With repair or assembling means
		231	.Plates or frames
190	WITH EXTERNAL SUPPLY MEANS FOR REGENERATING MEDIUM, E.G., WATER SOFTENING SYSTEM	232	WITH REPAIR OR ASSEMBLING MEANS
		233	.Piercing or closure knock out means
		234	.Removable treatment part with normally disabled flow controller
191	.With pump, injector or siphon		
192	WITH PRELIMINARY CHEMICAL MANUFACTURE	235	.Placement of container opens flow controller
193	WITH PRECOAT ADDING OR APPLYING MEANS		
194	RECIRCULATION	236	.Sliding or rolling on guide means
195.1	.Serially connected distinct treating or storage units	237	.Hoist or handle means
		238	..Hand manipulable
195.2	..With semipermeable membrane, e.g., dialyzer, etc.	239	CONVERTIBLE
		240	.Filter having selectively usable flow connector means
195.3	..With sediment recycle means directly to main stream		
		241	WITH MOVABLE SUPPORT
195.4	...Means is baffle slot	242.1	.Float
196	.Of filtrate	242.2	..With aerating means
197	.From bottom of separator	242.3	..With oil water skimmer
198.1	WITH MEANS TO ADD TREATING MATERIAL	242.4	..With oil water sorption means
198.2	.Chromatography	243	ELECTRICAL INSULATING OR ELECTRICITY DISCHARGING
198.3	..Thin layer, e.g., plate, etc.		
199	.Spaced along flow path	244	PORTABLE RECEPTACLE WITH HOOD OR CLOSURE
200	.Plural distinct separators	245	.Attached variable flow controller
201	..Serially connected	246	.Limited opening cover
202	...Diverse type	247	FILTRATE SPLASH PLATE AND/OR DEFLECTOR
203	..Filters	248	WITH DRIP, OVERFLOW OR CONTENT DRAINING FEATURE
204	...Sectional chamber press type		
205	.With distinct reactor tank, trough or compartment	249	BRACKET OR LEG SUPPORT FOR STATIC SEPARATOR ASSEMBLY
206	..Chemical holder in series with separator	250	.Leg
		251	COMBINED
207	..Within gravitational separator	252	SERIALLY CONNECTED DISTINCT TREATING WITH OR WITHOUT STORAGE UNITS
208	...With mechanical agitator		
209	.Directly applied to separator	253	.Parallel
210	..To interior of moving filter, e.g., drum	254	.With by-pass
		255	.Cascade
211	...Through separator supporting rotary shaft	256	.One unit inside another
		257.1	.With storage unit
212	..With stationary casing closure feature	257.2	..Having membrane
		258	.With pump, gas pressure or vacuum source
213	...With coaxial rotary impeller or distributor		
		259	.Diverse
214	...With stationary mount for movable distributor	260	..Including multiple operation unit
		261	..One unit supports another
215	...With effluent dividing means	262	..On different levels
216	..Moving filter medium	263	PARTICULATE MATERIAL TYPE SEPARATOR, E.G., ION EXCHANGE OR SAND BED
217	...Drum		
218	..Gas removed from closed tank	264	.Selective units or compartments
219	..With mechanical agitator	265	.With gravitational separator
220	..Submerged fluid inlet	266	.With spaced non-particulate separating means
221.1	...With outlet at surface, e.g., froth flotation, etc.	267	.Trunnion mounted casing
		268	.Gravity flow of particles type
221.2	...And gas injecting means other than by mechanical agitation	269	.With rehabilitation means
222	MAGNETIC		
223	.With additional separator		
224	SECTIONAL CHAMBER PRESS TYPE		

Title Change
* Newly Established Subclass

@ Indent Change
& Position Change

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	PARTICULATE MATERIAL TYPE SEPARATOR,	315	...One within another
	E.G., ION EXCHANGE OR SAND BED	316	...One adjacent inlet or outlet conduit
	.With rehabilitation means	317	...Including non-self-supporting medium
270	..Movable means for particle pickup and redeposit	318	...Incompatible shapes
		319	.With agitator
271	..Surface traversing type	320	.With baffle perpendicular to flow direction
272	...Rotating on stationary axis		
273	...Moving fluid distributor	321.6	CASING DIVIDED BY MEMBRANE INTO SECTIONS HAVING INLET(S) AND/OR OUTLET(S)
274	..Including means to apply gas to bed		
275	..Backwash or blowback means	321.61	.Membrane secured with adhesive of specified composition
276	...With mechanical agitator or residue remover	321.62	.Antithrombogenic membrane
277	...Flow controller external of closed casing	321.63	.Rotating mechanical agitator adjacent membrane
278	...Multi-way valve unit	321.64	.Plural diverse structured membranes within a single casing
279	..With embedded fluid distributor		
280	..With agitator	321.65	.Permeated liquid quantity measurement or control
281	..With access opening to normally closed casing	321.66	.Energy recovery from treated liquid
282	.Removable cartridge or hand-manipulated container	321.67	.Membrane movement during purification
		321.68	..Nontranslatory rotary
283	.Pervious divider between and contacting beds	321.69	.With membrane cleaning or sterilizing means (other than by filter movement or rotating agitator)
284	.Spaced beds		
285	.Embedded baffle	321.7	..Solid cleaning material (e.g., balls)
286	..Vertical	321.71	.Dialyzer with dialysate proportioning means
287	.Within flow line or flow line connected closed casing	321.72	.Each section having inlet(s) and outlet(s)
288	..Conduit through bed, inlet and outlet at same end of casing	321.73	..Noncoiled nonannular cross section tube
289	..With particular liquid receiving means or foraminous bed retainer	321.74	..Coiled membrane
290	.With multi-layer beds	321.75	..Planar membrane
291	.Particular liquid receiving means or foraminous bed retainer	321.76	...Spiral flow
		321.77	..Pleated membrane
292	..Hood or top protector type	321.78	..Cylindrical membrane
293	..Floor type, e.g., false bottom	321.79	...Plural cylindrical membranes all connected for parallel flow
294	DIVERSE DISTINCT SEPARATORS		
295	.Including a filter	321.8	...All cylindrical membranes are parallel
296	..Including liquid as a separating medium	321.81	....With embedded baffle
297	..Moving filter medium	321.82	.Noncoiled nonannular cross section tube
298	..With mechanical residue or sediment mover	321.83	.Coiled membrane
		321.84	.Planar membrane
299	..Including constituent trapping feature	321.85	..Spiral flow
300	...Alternate filters and traps in series	321.86	.Pleated membrane
301	...Plural traps	321.87	.Cylindrical membrane
302	...Flow-line valve upstream of separator	321.88	..Plural cylindrical membranes all connected for parallel flow
303	...Cut-off sediment trap		
304	...Tangential flow, spiral or convolute baffle	321.89	...All cylindrical membranes are parallel
305	...Baffle preceding or within sediment trap	321.9	...With embedded baffle
		322	PLURAL DISTINCT SEPARATORS
306	...Deflecting prefilter from filter medium	323.1	.Filters
		323.2	..Tubular
307	...Downstream of filter medium	324	..Movable separating elements
308	...Directly communicating with tubular filter interior	325	...Planetary
		326	...Drum type on parallel axis
309	...Attached to filter element		
310	...Lateral trap		
311	...Downflow inlet, upflow through filter medium		
312	...Sediment discharge means		
313	...Valve controlled		
314	..Spaced filters		

Title Change
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CLASS 210 LIQUID PURIFICATION OR SEPARATION

OCTOBER 2006

	PLURAL DISTINCT SEPARATORS	369	...Discharging residue
	.Filters	370	...Secondary motion of filter medium
	..Movable separating elements	371	...With variable flow controller
327	...Plural cleaners and plural movable elements	372	...By residue engaging means
		373	....Fixed
328	...Pivotally mounted sections	374	....Rotatable
329	...Relatively movable	375	.....Pivoted
330	...Connected for group operation	376	....Axially reciprocable
331	...Spaced filter wall type, e.g., multiple hollow leaves	377	..Internal work distributor
332	..With residue removal or liquid agitation	378	...Including filtrate receiving means having plural filtrate outlets
		379	...Including filtrate receiving trough adjacent top discharge
333.01	...Backwash or blowback		
333.1	...Sequential backwash	380.1	...Rotating element construction
334	...Alternating filter and residue remover	380.2	...Laundry
		380.3	...Horizontal axis
335	..In series for prefilt flow	381	...Inwardly extending partitions
336	...Tortuous path	382	...Top filtrate discharge
337	...Nested units	383	..Separate agitator
338	...Concentric filter elements	384	..Vibrator and unidirectional motion filter medium
339	...Internal flange supporting filter element	385	..With plural motion
340	..Parallel filters with flow controller	386	..Rolls or confining members contacting residue
341	..Individually controlled for removal with common receiver	387	..Unrollable
342	..One element within another	388	..Vibrating or longitudinally reciprocating
343	..Alternating oppositely opening liquid distributors	389	...Longitudinally moving prefilt type
344	..Abutted alternating medium and pan type receiver	390	..Mounted on movable valve element
345	..Radial or radially connected to central header	391	..With cleaning means
		392	...Fixed position or attached valve blocking means
346	..Spaced wall-type filters	393	...Backwash or blowback and additional cleaner
347	...Central header	394	...Discharging inside, e.g., internal-type drum
348	FILTER	395	...With filter-driven valve means
349	.Pulsation dampener or gas trapping	396	...Solid cleaner, e.g., scraper
350	.With movable means to compress medium	397	...With plural outlets from filter casing
351	..Actuating means external of closed casing	398	..Within sealed enclosure
352	..Internal spring	399	..Movable casing
353	.Free cleaning means, e.g., loose abrading particles	400	..Belt type
354	.Medium, cleaner or agitator moved by fluid	401	...Superimposed on additional moving support
355	..Cleaner	402	..Drum type
356	..Medium flexed	403	...Internal feed
357	.Relatively movable members interleaved for cleaning	404	...Annular segmented compartment
358	.Imperforate drum, medium on arc, chord or end	405	.Movable prefilt distributor
		406	.Vacuumized filtrate receiver
359	.Movable medium	407	.With residue removing means or agitation of liquid
360.1	..Centrifugal extractor	408	..Diverse, e.g., combined agitators, scrapers, aeration blowback
360.2	...With inward flow of feed component	409	..Fluid cleaning
361	...With individual article container or support	410	...Air pump type
362	...Container or support reversible	411	...Backwash or blowback
363	...With adjustable rotation stabilizer	412	...Liquid pulsator
364	...Casing, shaft and filter unit gyrotorily mounted	413	..Fixed filter medium and movable stirrer or cleaner
365	...Shaft and filter unit gyrotorily mounted		
366	...Gyrotory mounting above filter		
367	...Filter gyrotorily mounted on shaft		
368	...With rotation brake		

Title Change
* Newly Established Subclass

@ Indent Change
& Position Change

	FILTER	453	..Filter element clamped between closure and end wall
	..With residue removing means or agitation of liquid	454	..Filter element attached to closure
	..Fixed filter medium and movable stirrer or cleaner	455	..Receptacle and modified spacing surface or support for filter medium
414	...With plural outlets from filter casing	456	..Prefilt flow distributor or diverter
415	...Nontranslatory rotary	457	..With central pervious tubular receiver
416.1	..With pump, gas pressure, or suction source	458	..Plural concentric receivers
416.2	..For aquarium or swimming pool	459	..Pipe or plate attached type
416.3	..For drinking water	460	..Attached to open end of pipe
416.4	..For fuel system	461	...Spaced wall-type element
416.5	..For lubricating or oil treating system	462	...Pipe is connection to plate
417	..Alternating oppositely opening liquid distributors	463	...Inserted holder
418	..With flow controller for material being treated	464	..Portable receptacle draining type
419	..Attached to or within portable prefiltr receiver	465	..Cooperating handles on receptacle and drainer
420	..Selective directive flow relative to filter	466	..Receptacle spout
421	...Pivoted prefiltr deflector	467	...Within receptacle proper
422	...Plural outlets from filter casing	468	...Spaced from spout discharge
423	...Attached unitary plural passage header	469	..On or adjacent receptacle upper edge
424	...Multi-way valve	470	..Handled
425	...Backwash	471	..Ring type
426	....Encased	472	..Vented
427	...Backwash	473	..Resting on supporting receiver, e.g., portable
428	..Combining or dividing flow passages with filter in combined passage	474	..At upper edge of filtrate receiver
429	..Filter coaxial with valve seat or valve stem	475	...Filter offset in cover
430	...Filter surrounds valve	476	...Telescoped receivers or receiver sections
431	...Filter fixed to valve seat, opposed to valve head	477	..Resting on internal stop or surface
432	..Filter in valve body recess	478	...Unitary filter medium and radially expandable retainer
433.1	..Divided filtered, and unfiltered liquid passages	479	...Inner separate retainer
434	..Recombining	480	...With contractor for expandable retainer
435	..Within flow line or flow line connected close casing	481	...Longitudinal retainer or guide, (e.g., reflex coffee maker)
436	..Vented	482	..At lower end or prefiltr receiver
437	..Central internal liquid receiver, e.g., tube	483	..Supported, shaped or superimposed formed mediums
438	...Imperforate central liquid tube	484	..Medium within foraminous supporting container or sheath
439	...Axial flow through filter element	485	..External cage-type support
440	...Inlet and outlet at same end	486	..Spaced wall type, e.g., hollow leaf
441	...Attached to casing	487	...Concentric, convolute or pleated
442	...Head and base connected	488	..Abutted or superimposed members
443	..Inlet and outlet at same end	489	...For series flow
444	...Filter suspended from head	490	....Integral or coated layers
445	..Clamped in casing joint	491	....All fibrous
446	..Axially aligned inlet and outlet	492	...Alternating dissimilar
447	...Laterally removable	493.1	..Pleated
448	...Single open-end-type filter element	493.2	...Bonded end caps
449	...Pipe end attached closed casing, e.g., faucet	493.3	...Rectangularly shaped
450	..Gasket within casing or spaced removable end members	493.4	...Spirally formed
451	..Internal fixed shoulder supporting filter element	493.5	...Filter element
452	...Single open-end-type filter element	494.1	..Convolute
		494.2	...Metal
		494.3	...With edge spacer
		495	..Single ring or closed frame type

CLASS 210 LIQUID PURIFICATION OR SEPARATION

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	FILTER	522	..Each with lighter constituent discharge
	.Supported, shaped or superimposed formed mediums	523	.Mechanical constituent mover
496	..Bound, fused or matted, e.g., porous shapes, sponges, etc.	524	..Diverse serial
497.01	..Cylindrical, conical, or trough shape	525	..Scum sediment removal
497.1	...Helically wound	526	..Endless belt or chain
497.2	...Filter blank	527	..Rectilinearly movable supporting means
497.3	...Conical	528	..Horizontally rotating scraper
498	..Perforated or grooved plates	529	...Polygonal container and correlating mover
499	..Screens, e.g., woven	530	...Tank rim-supported carriage
500.1	.Material	531	...Elevatable scrapers
500.21	..Semipermeable membrane	532.1	.Heavier constituent trap, chamber, or recess
500.22	...Isotropically pored	532.2	..Septic tank
500.23	...Hollow fiber or cylinder	533	..Closure or valve controlled discharge
500.24	...Antithrombogenic coating or membrane	534	...In sloping recess
500.25	...Metal containing	535	...Downstream of separator
500.26	...Glass	536	...In side wall of separator
500.27	...Organic	537	...With discharge means for two or more lighter constituents
500.28	....Cyclic	538	.Lighter constituent trap
500.29	.....Cellulosic	539	..Gas vent or bypass
500.3	.....Cellulose acetate	540	..With discharge port
500.31	.....Cellulose diacetate	541	ADJUNCTS
500.32	.....Cellulose triacetate	542	MISCELLANEOUS
500.33	....Homocyclic		*****
500.34	.....Styrene		CROSS-REFERENCE ART COLLECTIONS
500.35	....Acrylate		*****
500.36	....Alkene other than vinyl		ULTRA PURE WATER (E.G., CONDUCTIVITY WATER)
500.37	....Amine	900	SPECIFIED LAND FILL FEATURE (E.G., PREVENTION OF GROUND WATER FOULING)
500.38	.....Amide	901	MATERIALS REMOVED
500.39	.....Imide	902	.Nitrogenous
500.4	....Carbonate	903	..-CN containing
500.41	....Sulfone	904	..Protein
500.42	....Vinyl	905	..Phosphorus containing
500.43	....Acrylonitrile	906	..Phosphate slimes
501	..Sterilizing or neutralizing agent containing	907	.Organic
502.1	..Sorbptive component containing	908	..Aromatic compound (e.g., PCB, phenol, etc.)
503	..Diverse granular or fibrous	909	..Nonbiodegradable surfacant
504	..With adhered coating or impregnant	910	.Cumulative poison
505	...Including fibers	911	..Heavy metal
506	..Coated or impregnated, e.g., adhesively bound	912	...Chromium
507	...Fabrics	913	...Mercury
508	...Fibrous	914	.Fluorine containing
509	....Inorganic	915	.Odor (including control or abatement)
510.1	..Porous unitary mass	916	.Color
511	LIQUID AS SEPARATING MEDIUM	917	MISCELLANEOUS SPECIFIC TECHNIQUES
512.1	TANGENTIAL FLOW OR CENTRIFUGAL FLUID ACTION	918	..Using combined systems by merging parallel diverse waste systems
512.2	.Multiple cyclone	919	..Using combined systems of sequential local and regional or municipal sewage systems
512.3	.With movable means affecting flow	920	.Flow equalization or time controlled stages or cycles
513	GRAVITATIONAL SEPARATOR	921	.Oil spill cleanup (e.g., bacterial, etc.)
514	.Portable invertible, e.g., milk and cream separator	922	
515	..Selective withdrawal of constituents		
516	..Resilient deformable isolator		
517	...Hinged to handle		
518	..Sectional isolator		
519	.Material supply distributor		
520	..Rotatable		
521	.Superposed compartments or baffles, e.g., parallel plate type		

Title Change
* Newly Established Subclass

@ Indent Change
& Position Change

MISCELLANEOUS SPECIFIC TECHNIQUES

.Oil spill cleanup (e.g., bacterial, etc.)

923 ..Using mechanical means (e.g., skimmers, pump, etc.)

924 ..Using physical agent (e.g., sponge, mop, etc.)

925 ..Using chemical agent

926 ..Using oxidation ditch (e.g., carousel, etc.)

928 PAPER MILL WASTE (E.G., WHITE WATER, BLACK LIQUOR, ETC.) TREATED

929 HEMOULTRAFILTRATE VOLUME MEASUREMENT OR CONTROL PROCESSES

930 PAINT DETACKIFYING

* 931 ZEBRA MUSSEL MITIGATION OR TREATMENT

FOREIGN ART COLLECTION

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

Any foreign patents or nonpatent literature from subclasses that have been reclassified have been transferred directly to the FOR Collection listed below. These Collections contain ONLY foreign patents or nonpatent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

STRUCTURAL INSTALLATION (210/153)

* FOR 100 .Closed circulating systems (210/167)

* FOR 101 ..Lubrication (210/168)

* FOR 102 ..Aquarium or swimming pool (210/169)

* FOR 103 .Geographic (e.g., drainage ditch, septic, pond) (210/170)

* FOR 104 .Ancillary to storage tank (210/172)

DIGESTS

DIG 3 BELT ALIGNMENT

DIG 5 COALESCER

DIG 6 DEHYDRATORS

DIG 7 DRIER BLOCKS

DIG 8 FAT FRYER

DIG 9 FLOATING COVER

DIG 13 PART FLOW-FULL FLOW

DIG 17 TWIST-ON

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New Classification -----	Number Of ORs -----	Source Classification -----	Number Of ORs -----
119/246	1	210/169	646
119/260	1	210/169	646
137/215	1	210/167	226
156/73.3	1	210/168	168
202/170	1	210/170	347
209/170	1	210/170	347
210/103	1	210/167	226
210/114	1	210/170	347
210/122	1	210/168	168
210/123	1	210/169	646
210/138	1	210/167	226
	1	210/169	646
210/149	1	210/169	646
210/154	1	210/170	347
210/167.01	68	210/167	226
	1	210/168	168
	4	210/169	646
	1	210/170	347
210/167.02	64	210/168	168

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New Classification -----	Number Of ORs -----	Source Classification -----	Number Of ORs -----
	2	210/172	165
210/167.03	7	210/168	168
210/167.04	1	210/167	226
	36	210/168	168
210/167.05	5	210/168	168
210/167.06	10	210/168	168
210/167.07	6	210/168	168
210/167.08	14	210/168	168
	1	210/172	165
210/167.09	7	210/168	168
210/167.1	46	210/169	646
210/167.11	8	210/167	226
	54	210/169	646
210/167.12	2	210/167	226
	71	210/169	646
	2	210/170	347
210/167.13	38	210/169	646
210/167.14	16	210/169	646
	1	210/170	347

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New Classification -----	Number Of ORs -----	Source Classification -----	Number Of ORs -----
210/167.15	6	210/169	646
210/167.16	1	210/167	226
	15	210/169	646
210/167.17	1	210/167	226
	13	210/169	646
210/167.18	24	210/169	646
210/167.19	20	210/169	646
210/167.2	22	210/169	646
210/167.21	38	210/169	646
210/167.22	45	210/169	646
210/167.23	53	210/169	646
210/167.24	17	210/169	646
210/167.25	46	210/169	646
210/167.26	34	210/169	646
210/167.27	35	210/169	646
210/167.28	27	210/167	226
	2	210/168	168
210/167.29	6	210/167	226
210/167.3	26	210/167	226
	1	210/169	646
210/167.31	46	210/167	226

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New Classification -----	Number Of ORs -----	Source Classification -----	Number Of ORs -----
	1	210/169	646
210/167.32	30	210/167	226
210/170.01	43	210/170	347
210/170.02	1	210/167	226
	3	210/169	646
	8	210/170	347
210/170.03	27	210/170	347
210/170.04	12	210/170	347
210/170.05	23	210/170	347
210/170.06	1	210/169	646
	27	210/170	347
210/170.07	1	210/167	226
	43	210/170	347
210/170.08	46	210/170	347
210/170.09	1	210/167	226
	45	210/170	347
210/170.1	30	210/170	347
210/170.11	21	210/170	347
210/171	1	210/168	168
210/172.1	48	210/172	165

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New Classification	Number Of ORs	Source Classification	Number Of ORs
210/172.2	45	210/172	165
210/172.3	29	210/172	165
210/172.4	18	210/172	165
210/172.5	5	210/172	165
210/172.6	14	210/172	165
210/206	1	210/168	168
210/232	2	210/168	168
	5	210/169	646
210/233	1	210/169	646
210/235	1	210/169	646
210/237	1	210/169	646
210/238	10	210/169	646
210/243	1	210/168	168
210/259	1	210/170	347
210/282	1	210/169	646
210/315	1	210/168	168
210/316	1	210/168	168
210/333.1	1	210/169	646
210/342	1	210/169	646
210/446	1	210/169	646

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New Classification -----	Number Of ORs -----	Source Classification -----	Number Of ORs -----
210/460	1	210/168	168
210/470	2	210/169	646
210/471	2	210/169	646
210/474	1	210/170	347
210/501	1	210/169	646
210/616	1	210/169	646
210/634	1	210/168	168
210/695	1	210/172	165
210/696	2	210/168	168
210/697	1	210/168	168
210/712	1	210/167	226
210/747	2	210/170	347
210/774	1	210/168	168
210/805	1	210/167	226
	1	210/169	646
210/85	1	210/169	646
210/87	1	10/167	226
	1	210/169	646
210/90	1	210/168	168
	1	210/169	646

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New Classification	Number Of ORs	Source Classification	Number Of ORs
210/94	3	210/169	646
	1	210/172	165
210/95	1	210/169	646
210/97	1	210/169	646
239/602	1	210/170	347
239/93	1	210/169	646
299/5	1	210/170	347
383/100	1	210/172	165
405/52	3	210/170	347
422/140	1	210/170	347
423/560	1	210/170	347
435/290.1	1	210/170	347
435/290.2	1	210/170	347
507/216	1	210/170	347
96/237	1	210/167	226

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
210/167	226	137/215	1
		210/103	1
		210/138	1
		210/167.01	68
		210/167.04	1
		210/167.11	8
		210/167.12	2
		210/167.16	1
		210/167.17	1
		210/167.28	27
		210/167.29	6
		210/167.3	26
		210/167.31	46
		210/167.32	30
		210/170.02	1
		210/170.07	1
		210/170.09	1
		210/712	1

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		210/805	1
		210/87	1
		96/237	1
210/168	168	156/73.3	1
		210/122	1
		210/167.01	1
		210/167.02	64
		210/167.03	7
		210/167.04	36
		210/167.05	5
		210/167.06	10
		210/167.07	6
		210/167.08	14
		210/167.09	7
		210/167.28	2
		210/171	1
		210/206	1
		210/232	2
		210/243	1
		210/315	1

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		210/316	1
		210/460	1
		210/634	1
		210/696	2
		210/697	1
		210/774	1
		210/90	1
210/169	646	119/246	1
210/169	646	119/260	1
		210/123	1
		210/138	
		210/149	1
		210/167.01	4
		210/167.1	46
		210/167.11	54
		210/167.12	71
		210/167.13	38
		210/167.14	16
		210/167.15	6

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		210/167.16	15
		210/167.17	13
		210/167.18	24
		210/167.19	20
		210/167.2	22
		210/167.21	38
		210/167.22	45
		210/167.23	53
		210/167.24	17
		210/167.25	46
		210/167.26	34
		210/167.27	35
		210/167.3	1
		210/167.31	1
		210/170.02	3
		210/170.06	1
		210/232	5
		210/233	1
		210/235	1
		210/237	1

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		210/238	10
		210/282	1
		210/333.1	1
		210/342	1
		210/446	1
		210/470	2
		210/471	2
		210/501	1
		210/616	1
		210/805	1
		210/85	1
		210/87	1
		210/90	1
		210/94	3
		210/95	1
210/169	646	210/97	1
		239/93	1
210/170	347	202/170	1
		209/170	1

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Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		210/114	1
		210/154	1
		210/167.01	1
		210/167.12	2
		210/167.14	1
		210/170.01	43
		210/170.02	8
		210/170.03	27
		210/170.04	12
		210/170.05	23
		210/170.06	27
		210/170.07	43
		210/170.08	46
		210/170.09	45
		210/170.1	30
		210/170.11	21
		210/259	1
		210/474	1
		210/747	2

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FROM ABOLISHED SUBCLASSES REPORT

Source Classification	Number of ORs	New Classification	Number of ORs
-----	-----	-----	-----
		239/602	1
		299/5	1
		405/52	3
		422/140	1
		423/560	1
		435/290.1	1
		435/290.2	1
		507/216	1
210/172	165	210/167.02	2
		210/167.08	1
		210/172.1	48
		210/172.2	45
		210/172.3	29
		210/172.4	18
		210/172.5	5
		210/172.6	14
		210/695	1
		210/94	1
		383/100	1

U.S. DEPARTMENT OF COMMERCE
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C. CHANGES TO THE U.S.-I.P.C. CONCORDANCE

<u>Class</u>	<u>U.S.</u> <u>Subclass</u>	<u>I.P.C.</u> <u>Subclass</u>	<u>Notation</u>
210	167.01	B01D	
		C02F	
		C02F	1/00
	167.02-167.09	B01D	
		F01M	
		F01M	11/03
	167.1-167.2	B01D	
		C02F	
		C02F	1/00
		E04H	4/16
	167.21-167.27	B01D	
		C02F	
		A01K	63/04
	167.28	B01D	
		A47J	37/12
	167.29	B01D	35/06
		B03C	1/00
167.3-167.32	B01D		
	C02F		
	C02F	1/00	
170.01-170.11	B01D		
	C02F		
	C02F	1/00	
	E02B	15/00	
171-172.6	B01D		
	C02F		
	C02F	1/00	

D. CHANGES TO THE DEFINITIONS

CLASS 4 – BATHS, CLOSETS, SINKS, AND SPITTOONS

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 490: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.1 and 167.2 for liquid purification or separation means in a structural installation with a closed circulating system for a swimming pool or spa.

D. CHANGES TO THE DEFINITIONS

CLASS 37 – EXCAVATING

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Class Definition: Under Section III – References to Other Classes

Insert:

210, Liquid Purification or Separation, subclass 170.04 for liquid purification or separation means for excavating means.

D. CHANGES TO THE DEFINITIONS

CLASS 52 – STATIC STRUCTURES (E.G., BUILDINGS)

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 169.1: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 170.01-170.11 for liquid purification or separation means installed in a geographic feature.

D. CHANGES TO THE DEFINITIONS

CLASS 62 – REFRIGERATION

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 470: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.02-167.09 for liquid purification or separation means in a structural installation with a closed circulating system for a lubrication system.

D. CHANGES TO THE DEFINITIONS

CLASS 99 – FOODS AND BEVERAGES: APPARATUS

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 408: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclass 167.28 for liquid purification or separation means in a structural installation with a closed circulating system for a cooking oil system.

D. CHANGES TO THE DEFINITIONS

CLASS 119 – ANIMAL HUSBANDRY

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 211: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.21-167.27 for liquid purification or separation means in a structural installation with a closed circulating system for an aquarium.

Subclass 226: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.21-167.27 for liquid purification or separation means in a structural installation with a closed circulating system for an aquarium, subclass 170.02 for liquid purification or separation means for a fishpond, and subclass 416.2 for a filter with a cooperating pump adapted for use in an aquarium.

Subclass 259: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.21-167.27 for liquid purification or separation means in a structural installation with a closed circulating system for an aquarium.

D. CHANGES TO THE DEFINITIONS

CLASS 123 – INTERNAL-COMBUSTION ENGINES

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 196: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 153+ for liquid purification or separation means in a structural installation, especially subclasses 167.02-167.09 for a closed circulating system for a lubrication system and subclass 171 for machinery wherein an internal-combustion engine may be broadly recited as the source of the material to be treated.

D. CHANGES TO THE DEFINITIONS

CLASS 137 – FLUID HANDLING

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 234.6: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 170.01-170.11 for liquid purification or separation means installed in a geographic feature.

D. CHANGES TO THE DEFINITIONS

CLASS 174 – ELECTRICITY: CONDUCTORS AND INSULATORS

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 14: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.01-167.32 for liquid purification or separation means in a structural installation with a closed circulating system and subclass 243 for liquid purification or separation means with electrical insulation or electricity discharge.

D. CHANGES TO THE DEFINITIONS

CLASS 184 – LUBRICATION

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 6: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, appropriate subclasses for processes and apparatus for separating a component from a liquid, particularly subclasses 167.02-167.09 for liquid purification or separation means in a structural installation with a closed circulating system for a lubrication system.

Subclass 6.24: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, appropriate subclasses for processes and apparatus for separating a component from a liquid, particularly subclasses 167.02-167.09 for liquid purification or separation means in a structural installation with a closed circulating system for a lubrication system.

D. CHANGES TO THE DEFINITIONS

CLASS 209 – CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 501: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 167.01-167.32 for liquid purification or separation means in a structural installation with a closed circulating system and subclasses 194+ for liquid purification or separation means having recirculation means.

D. CHANGES TO THE DEFINITIONS

CLASS 210 – LIQUID PURIFICATION OR SEPARATION

Definitions Abolished:Subclasses

167-170, 172

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 171: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 168

Insert:

167.02-167.09, for a closed circulating system for a lubrication system.

Subclass 175: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Insert:

167.06, for liquid purification or separation apparatus comprising a closed circulating system for a lubrication system with heating or cooling means.

167.32, for liquid purification or separation apparatus comprising a closed circulating system with heating or cooling means.

Subclass 194: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 167+

Insert:

167.01-167.32, for a structural installation with a closed circulating system.

Subclass 198.1: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Insert:

167.11, for liquid purification or separation apparatus comprising a closed circulating system for a swimming pool or spa with means to add a treating material.

167.3, for liquid purification or separation apparatus comprising a closed circulating system with means to add a treating material.

Subclass 222: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Insert:

167.03, for liquid purification or separation apparatus comprising a closed circulating system for a lubrication system having magnetic treating means.

167.29, for liquid purification or separation apparatus comprising a closed circulating system having magnetic treating means.

Subclass 252: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 172

Insert:

172.1-172.6, for a structural installation in which the separator is ancillary to a storage tank.

Subclass 291: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 172

Insert:

172.1-172.6, for a structural installation in which the separator is ancillary to a storage tank.

Subclass 383: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 167+

Insert:

167.01-167.32, for a structural installation with a closed circulating system.

Subclass 416.1: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 167

Insert:

167.01-167.32, for a structural installation with a closed circulating system.

Subclass 416.2: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 169

Insert:

167.1-167.2, for a closed circulating system for a swimming pool or spa.

167.21-167.27, for a closed circulating system for an aquarium.

Subclass 416.5: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 168

Insert:

167.02-167.09, for a closed circulating system for a lubrication system.

Subclass 459: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 172

Insert:

172.1-172.6, for a structural installation in which the separator is ancillary to a storage tank.

Subclass 532.2: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 170

Insert:

170.08, for a septic tank installed in a geographic feature.

Subclass 601: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Insert:

167.22, for a closed circulating system for an aquarium using a living organism.

Subclass 805: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 167

Insert:

167.01-167.32, for a structural installation with a closed circulating system.

Definitions Established: (Place established subclasses in numerical sequence:)

167.01 Closed circulating system:

This subclass is indented under subclass 153. Apparatus comprising a group of devices, including liquid purification or separation means, through which the liquid being purified or separated is continuously returned and reused.

SEE OR SEARCH THIS CLASS, SUBCLASS:

194+, for liquid purification or separation apparatus including recirculation means.

SEE OR SEARCH CLASS:

68, Textiles: Fluid Treating Apparatus, subclass 18 for textile fluid treating apparatus including recirculation means and liquid purification or separation means for the used solvent.

118, Coating Apparatus, subclasses 600+ for coating apparatus with means for treatment of the coating material involving recirculation and liquid purification or separation.

- 123, Internal-Combustion Engines, subclass 41.55 for internal-combustion engine cooling system combined with liquid purification or separation means and subclass 196 for internal-combustion engine lubricator means combined with liquid purification or separation means.
- 134, Cleaning and Liquid Contact With Solids, subclasses 10+ and 109+ for cleaning and liquid contact with solids processes and apparatus including means for purifying or separating the cleaning or contact liquid.

167.02 For lubrication system:

This subclass is indented under subclass 167.01. Apparatus in which the liquid purification or separation means is adapted for use in a closed circulating system that provides lubricant to moving parts of a machine.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 416.5, for a filter, with a pump, gas pressure, or suction source, adapted for use in a lubricating or oil treating system.

SEE OR SEARCH CLASS:

- 123, Internal-Combustion Engines, subclass 196 for internal-combustion engine lubricator means combined with liquid purification or separation means.
- 184, Lubrication, subclass 1.5 for automobile crank and gear case service apparatus including liquid purification of separation means and subclasses 6.24+ for lubrication systems combined with liquid purification or separation means.

167.03 Having magnetic treating means:

This subclass is indented under subclass 167.02. Apparatus having means that attract iron and certain other materials because of a surrounding field of force produced by motion of its atomic electrons and alignment of its atoms.

- (1) Note. The magnetic treating means generally is used to cause separation of iron-containing material from the lubricant. However, the magnetic treating means may subject the lubricant to a process that otherwise improves or alters the lubricant (e.g., mixing, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 167.29, for liquid purification or separation apparatus comprising a closed circulating system having magnetic treating means not for a lubrication system.
- 222+, for liquid purification or separation apparatus including magnetic treating means not in a closed circulating system.

167.04 Plural separators:

This subclass is indented under subclass 167.02. Apparatus that has two or more means for liquid purification or separation.

167.05 Having bypass line:

This subclass is indented under subclass 167.04. Apparatus that has means to conduct the lubricant around a device in the closed circulating system.

167.06 With heating or cooling means:

This subclass is indented under subclass 167.02. Apparatus that has means to raise or lower the temperature of the lubricant.

SEE OR SEARCH THIS CLASS, SUBCLASS:

167.32, for liquid purification or separation apparatus comprising a closed circulating system with heating or cooling means not for a lubrication system.

175+, for liquid purification or separation apparatus with a heater or a heat exchanger not in a closed circulating system.

167.07 Evaporator:

This subclass is indented under subclass 167.06. Apparatus in which the means to raise the temperature of the lubricant vaporizes a component to be separated.

167.08 Separator for transmission system:

This subclass is indented under subclass 167.02. Apparatus in which the liquid purification or separation means is adapted for use in a closed circulating system that comprises an assembly of parts by which power is transmitted from an engine to a drive axle.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclasses 337+ for motor vehicle transmission mechanisms.

167.09 With separator cleaning means:

This subclass is indented under subclass 167.02. Apparatus in which means are provided to remove the separated component from the liquid purification or separation means.

167.1 For swimming pool or spa (e.g., skimmer, etc.):

This subclass is indented under subclass 167.01. Apparatus in which the liquid purification or separation means is adapted for use with a tank, made of concrete, plastic, or other materials, for holding water that is open at the top for a user to enter, for swimming, relaxation, or recreation (e.g., swimming pool, spa, hot tub, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

416.2, for a filter, with a pump, gas pressure, or suction source, adapted for use with a swimming pool.

470, for a filter with a handle.

SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spitoons, subclasses 488+ for pools for swimming, relaxation, or recreation.

167.11 With means to add treating material:

This subclass is indented under subclass 167.1. Apparatus in which the liquid purification or separation means is combined with means to supply a substance to the water being purified or separated that subjects the water to a chemical or physical process that improves or alters the water.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 167.3, for liquid purification or separation apparatus comprising a closed circulating system with means to add a treating material not for a swimming pool or spa.
- 198.1+, for liquid purification or separation apparatus with means to add a treating material not in a closed circulating system.

SEE OR SEARCH CLASS:

- 422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 255+ for physical type apparatus having means separating or dissolving a material constituent, particularly subclasses 261+ for liquid-solid contact means and particularly subclass 265 for buoyant holders.

167.12 Separator external to swimming pool or spa:

This subclass is indented under subclass 167.1. Apparatus in which the liquid purification or separation means is located outside of the swimming pool or spa.

- (1) Note. The liquid purification or separation means may be attached to the exterior of the swimming pool or spa or may be connected to the swimming pool or spa by a system of pipes.

167.13 Particulate solid filter:

This subclass is indented under subclass 167.12. Apparatus in which the liquid purification or separation means comprises a plurality of small, distinct, separate, nonfilamentous solids in which a component of the water is entrapped and retained while permitting the water to pass through (e.g., sand filter, etc).

167.14 With separator cleaning means (e.g., backwash means, etc.):

This subclass is indented under subclass 167.12. Apparatus in which means are provided to remove the separated component from the liquid purification or separation means.

167.15 Separator for use on swimming pool or spa bottom and separator for use at water surface:

This subclass is indented under subclass 167.1. Apparatus that has two or more means for liquid purification or separation in which one means is located on a surface that is lowest in the swimming pool or spa during operation and another means is located at a surface of the water that is highest in the swimming pool or spa during operation.

167.16 Separator for use on swimming pool or spa bottom:

This subclass is indented under subclass 167.1. Apparatus that has means for liquid purification or separation located on a surface that is lowest in the swimming pool or spa during operation.

167.17 Debris collecting bag:

This subclass is indented under subclass 167.16. Apparatus in which the liquid purification or separation means comprises a usually flexible container that may be closed that is used to gather the component that is separated from the water.

167.18 Skimmer arm at skimmer opening at water surface:

This subclass is indented under subclass 167.1. Apparatus in which the liquid purification or separation means comprises a deflecting device that is positioned at a surface of the water that is highest at an opening of a weir in a wall of the swimming pool or spa and that diverts a portion of the water and debris into the opening.

167.19 Mesh or screen filter at or near water surface:

This subclass is indented under subclass 167.1. Apparatus in which the liquid purification or separation means comprises a material with an open network of interlacing threads or wires in which a component of the water is entrapped and retained while permitting the water to pass through and is located at or near a surface of the water that is highest in the swimming pool or spa.

167.2 Having floating means:

This subclass is indented under subclass 167.19. Apparatus having means to support buoyantly the mesh or screen filter at or near the water surface in the swimming pool or spa.

167.21 For aquarium:

This subclass is indented under subclass 167.01. Apparatus in which the liquid purification or separation means is adapted for use with a water-filled container in which aquatic animals are kept, with the container having one or more transparent portions so that the aquatic animals therein can be observed from the exterior.

SEE OR SEARCH THIS CLASS, SUBCLASS:

416.2, for a filter, with a pump, gas pressure, or suction source, adapted for use in an aquarium.

SEE OR SEARCH CLASS:

119, Animal Husbandry, subclasses 259+ for specific aquarium structure in combination with liquid purification or separation means.

167.22 Separator using living organism:

This subclass is indented under subclass 167.21. Apparatus in which the liquid purification or separation means includes an agent that has the ability to reproduce itself.

- (1) Note. For purposes of this subclass, living organism includes animals, plants, and microorganisms (e.g., bacteria, fungus, algae, etc.), but not enzymes. The organism may reproduce sexually, asexually, or by mechanical division (caused by external agents) and regeneration (e.g., layering or cloning, etc.).

167.23 Separator or part thereof associated with bottom of aquarium (e.g., means positioned under gravel, etc.):

This subclass is indented under subclass 167.21. Apparatus in which the liquid purification or separation means or a portion thereof (e.g., an inlet or an outlet, etc.) is located at or near a surface that is lowest in the aquarium (e.g., means positioned under gravel, etc.).

167.24 Having solid sorbent:

This subclass is indented under subclass 167.23. Apparatus having a solid sorbent that is used to retain on its internal or external surfaces a component of the water passing in contact therewith.

- (1) Note. A solid sorbent is a solid material that separates one or more components from a fluid mixture containing such components in a "quasi-chemical" manner. The action in most instances is that of selective retention (i.e., the sorbent removes only that part of the fluid mixture for which it has the greatest affinity). The retained component cannot be removed by shaking, brushing, or similar

mechanical action, but can generally be removed by heating, pressure reduction, or use of a stripping or denuding fluid.

A filter has no particular “chemical” affinity for a component of a fluid mixture. The separation in the case of a filter depends on a mechanical entrapment of solid particles because of their relatively large size compared with the interstices or spaces between individual elements of the filter. The retained particles can be removed by brushing, wiping, shaking, or similar mechanical action.

167.25 Particulate filter or particulate sorbent:

This subclass is indented under subclass 167.21. Apparatus in which the liquid purification or separation means comprises a plurality of small, distinct, separate, nonfilamentous solids in which a component of the water is entrapped and retained while permitting the water to pass through or apparatus having a solid sorbent that is used to retain on its internal or external surfaces a component of the water passing in contact therewith.

- (1) Note. A solid sorbent is a solid material that separates one or more components from a fluid mixture containing such components in a “quasi-chemical” manner. The action in most instances is that of selective retention (i.e., the sorbent removes only that part of the fluid mixture for which it has the greatest affinity). The retained component cannot be removed by shaking, brushing, or similar mechanical action, but can generally be removed by heating, pressure reduction, or use of a stripping or denuding fluid.

A filter has no particular “chemical” affinity for a component of a fluid mixture. The separation in the case of a filter depends on a mechanical entrapment of solid particles because of their relatively large size compared with the interstices or spaces between individual elements of the filter. The retained particles can be removed by brushing, wiping, shaking, or similar mechanical action.

167.26 Separator with aerator:

This subclass is indented under subclass 167.21. Apparatus in which the liquid purification or separation means is combined with means to supply the water with a gas (e.g., oxygen, air, etc.).

167.27 Separator mounted on top edge of aquarium wall:

This subclass is indented under subclass 167.21. Apparatus in which the liquid purification or separation means is located on an upper rim of the aquarium.

167.28 For cooking oil system:

This subclass is indented under subclass 167.01. Apparatus in which the liquid purification or separation means is adapted for use with a cooking apparatus in which food articles or materials are supported or manipulated for heat treating by contact with a body of heated oil (e.g., deep fat fryer, etc.).

SEE OR SEARCH CLASS:

- 99, Foods and Beverages: Apparatus, subclass 408 for a deep fat fryer type cooker with crumb or sediment segregation means.

167.29 Having magnetic treating means:

This subclass is indented under subclass 167.01. Apparatus having means that attract iron and certain other materials because of a surrounding field of force produced by the motion of its atomic electrons and the alignment of its atoms.

- (1) Note. The magnetic treating means generally is used to cause separation of iron-containing material from the liquid. However, the magnetic treating means may subject the liquid to a process that otherwise improves or alters the liquid (e.g., mixing, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

167.03, for liquid purification or separation apparatus comprising a closed circulating system having magnetic treating means for a lubrication system.

222+, for liquid purification or separation apparatus including magnetic treating means not in a closed circulating system.

167.3 With means to add treating material:

This subclass is indented under subclass 167.01. Apparatus in which the liquid purification or separation means is combined with means to supply a substance to the liquid being purified or separated that subjects the liquid to a chemical or physical process that improves or alters the liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

167.11, for liquid purification or separation apparatus comprising a closed circulating system with means to add a treating material for a swimming pool or spa.

198.1+, for liquid purification or separation apparatus with means to add a treating material not in a closed circulating system.

167.31 Plural separators:

This subclass is indented under subclass 167.01. Apparatus that has two or more means for liquid purification or separation.

167.32 With heating or cooling means:

This subclass is indented under subclass 167.01. Apparatus that has means to raise or lower the temperature of the liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

167.06, for liquid purification or separation apparatus comprising a closed circulating system with heating or cooling means for a lubrication system.

175+, for liquid purification or separation apparatus with a heater or a heat exchanger not in a closed circulating system.

170.01 Geographic:

This subclass is indented under subclass 153. Apparatus in which liquid purification or separation means are part of a system installed in the ground or related to a particular feature of the earth's surface (e.g., a body of water, etc.).

- (1) Note. Included in this subclass is in situ purging of flowing or still liquid (e.g., drainage ditch, septic system, pond, etc.) in a structural installation in which the liquid purification or separation means is (a) part of a system installed on natural

or modified terrain to convey rain, snowmelt, a river, sewage, well water or oil, etc. or (b) related to a particular nonland geographic feature, such as a lake, ocean, sea, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

154+, for a flume stream type separator.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclass 236.1 for a distribution system involving a geographic feature.

405, Hydraulic and Earth Engineering, subclasses 36+ for drainage devices for collecting and removing surplus water from soil and subclasses 52+ for fluid control, treatment, or containment.

170.02 For fishpond:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means is adapted for use with a small, still body of clear water stocked with fish.

SEE OR SEARCH CLASS:

119, Animal Husbandry, subclasses 226+ for a fish enclosure of the recirculating type with treatment means and subclasses 228+ for a fish enclosure of the nonrecirculating type with treatment means.

170.03 For stormwater treatment (e.g., rainwater runoff, stormsewer treatment, etc.):

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means is adapted for use to subject fallen precipitation to a chemical or physical process that improves or alters the fallen precipitation (e.g., rainwater runoff, stormsewer treatment, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

163+, for a grated inlet surface drain.

170.04 For excavating means:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means is adapted for use with an apparatus that digs, moves, and handles material either on the earth's surface or beneath a body of water.

SEE OR SEARCH CLASS:

37, Excavating, for excavating apparatus.

170.05 Floating means:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means is buoyed on or in the liquid.

170.06 Separator with aerator:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means is combined with means to supply the liquid with a gas (e.g., oxygen, air, etc.).

170.07 Groundwater:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means purifies or separates water within the earth's surface.

SEE OR SEARCH CLASS:

166, Wells, for well apparatus.

405, Hydraulic and Earth Engineering, subclasses 128.1+ for soil remediation.

170.08 Septic tank or waste liquid treatment system:

This subclass is indented under subclass 170.01. Apparatus in which the liquid purification or separation means comprises a tank in which a continuous flow of waste material is decomposed by bacteria or comprises a group of devices, including liquid purification or separation means, that purify or separate the waste liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

532.2, for a septic tank not associated with a geographic feature.

170.09 Body of freshwater (e.g., pond, lake, reservoir, etc.):

This subclass is indented under subclass 170.01. Apparatus in which the particular feature of the earth's surface that the liquid purification or separation means is related to is a bounded aggregate of still water that is not salty (e.g., pond, lake, reservoir, etc.).

170.1 Surface flowing freshwater (e.g., stream, river, ditch, canal, etc.):

This subclass is indented under subclass 170.01. Apparatus in which the particular feature of the earth's surface that the liquid purification or separation means is related to is a bounded aggregate of nonsalty, running water flowing on the earth's surface (e.g., stream, river, ditch, canal, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

154+, for a flume stream type separator.

170.11 Body of saltwater (e.g., sea, ocean, etc.):

This subclass is indented under subclass 170.01. Apparatus in which the particular feature of the earth's surface that the liquid purification or separation means is related to is an aggregate of salt water covering most of the earth's surface (e.g., sea, ocean, etc.).

172.1 Separator ancillary to storage tank:

This subclass is indented under subclass 153. Apparatus in which the liquid purification or separation means is auxiliary to a supply container.

172.2 Submerged separator:

This subclass is indented under subclass 172.1. Apparatus in which the liquid purification or separation means is covered with liquid.

172.3 On pump suction intake:

This subclass is indented under subclass 172.2. Apparatus in which the liquid purification or separation means is located on an inlet to a pump.

172.4 Filter supported by frame (e.g., bag shaped filter in fuel tank for engine, etc.):

This subclass is indented under subclass 172.3. Apparatus in which the liquid purification or separation means comprises a medium, in which a component of the liquid is entrapped and retained while permitting the liquid to pass through, that is held up by a skeletal structure (e.g., bag shaped filter in fuel tank for engine, etc.).

172.5 Having tethering means:

This subclass is indented under subclass 172.2. Apparatus in which the liquid purification or separation means is fastened to a part of the supply container by something (e.g., a rope or chain, etc.) with a set radius that allows the liquid purification or separation means to move about.

172.6 In tank inlet:

This subclass is indented under subclass 172.1. Apparatus in which the liquid purification or separation means is located at the opening to the supply container.

931 ZEBRA MUSSEL MITIGATION OR TREATMENT

Collection of disclosures directed to apparatus used to remove or kill a freshwater Eurasian lamellibranch mollusk (*Dreissena polymorpha*) or directed to apparatus using a freshwater Eurasian lamellibranch mollusk (*Dreissena polymorpha*) to improve or alter water.

FOREIGN ART COLLECTIONS

The definitions below correspond to abolished subclasses from which these collections were formed. See the Foreign Art Collection Schedule of this Class for specific correspondences. [Note: the titles and definitions for indented art collections include all the details of the one(s) that are hierarchically superior].

FOR 100 Closed circulating systems:

Foreign art collection having apparatus with means to recirculate a liquid therebetween.

FOR 101 Lubrication:

Foreign art collection having systems designed to lubricate moving parts of a machine.

FOR 102 Aquarium or swimming pool:

Foreign art collections having systems designed to accommodate living animals.

FOR 103 Geographic (e.g., drainage ditch, septic, pond):

Foreign art collection having apparatus in which a separator is part of a system installed in the ground or related to a particular geographic feature, as a lake.

FOR 104 Ancillary to storage tank:

Foreign art collection having apparatus including a supply tank for an apparatus or a system having a function external to the subject matter of this class and purification is incidental to the storage of the liquid for use in that system or apparatus.

D. CHANGES TO THE DEFINITIONS

CLASS 405 – HYDRAULIC AND EARTH ENGINEERING

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 36: Under SEE OR SEARCH CLASS:

Insert:

210, Liquid Purification or Separation, subclasses 170.01-170.11 for liquid purification or separation means installed in a geographic feature and subclass 747 for liquid purification or separation processes including a geographic feature.

Subclass 52: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 170.01-170.11 for liquid purification or separation means installed in a geographic feature and subclass 747 for liquid purification or separation processes including a geographic feature.

Subclass 74: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 210

Insert:

210, Liquid Purification or Separation, subclasses 170.01-170.11 for liquid purification or separation means installed in a geographic feature and subclass 747 for liquid purification or separation processes including a geographic feature.

D. CHANGES TO THE DEFINITIONS

CLASS 422 – CHEMICAL APPARATUS AND PROCESS DISINFECTING, DEODORIZING,
PRESERVING, OR STERILIZING

Definitions Modified: (Place modifications in numerical sequence, where applicable):

Subclass 255: Under SEE OR SEARCH CLASS: In the reference to Class 210, before the period,

Insert:

and subclass 167.11 for liquid purification or separation apparatus comprising a closed circulating system for a swimming pool or spa with means to add a treating material.

Subclass 261: Under SEE OR SEARCH CLASS:

Insert:

210, Liquid Purification or Separation, subclass 167.11 for liquid purification or separation apparatus comprising a closed circulating system for a swimming pool or spa with means to add a treating material.

Subclass 265:

Insert:

SEE OR SEARCH CLASS:

210, Liquid Purification or Separation, subclass 167.11 for liquid purification or separation apparatus comprising a closed circulating system for a swimming pool or spa with means to add a treating material.