

**SAMR Announcement on
Administrative Licensing of Special Equipment**

(No.3, 2019)

In order to thoroughly implement the "Proposals of the Central Committee of the CPC and the State Council on Promoting the Reform and Development of Safety Production" and the requirements of the State Council to implement the "Certificates and Licenses Separation Reform" throughout the country, and to promote the implementation of the "Top-level Design Scheme for Safety Supervision Reform of Special Equipment", effectively reduce the institutional transaction costs of enterprises, and strengthen the supervision of special equipment, after extensive consultation, the State Administration of Market Supervision has streamlined and integrated special equipment manufacture licensing items, special equipment operators and inspection and testing personnel qualification items, and formulated the "Licensing Catalog for Special Equipment Manufacturers" (Annex 1), the "Special Equipment Operating Personnel Qualifications and Items" (Annex 2), and the "Special Equipment Inspection and Testing Personnel Qualification Items" (Annex 3) .

It is hereby announced that the above three documents will be implemented as of June 1, 2019.

SAMR

Jan.16, 2019

Annex 1

Licensing Catalog for Special Equipment Manufacturers

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
Designer licensing	Pressure vessel design	1. Pressure vessel design by analysis (SAD) 2. Stationary Pressure vessel design by rules 3. Transportable pressure vessel design by rules		1. Design licensing of pressure vessel manufacturers is incorporated into manufacture licensing (pressure vessel design by analysis is excluded), and shall be indicated on the license. 2. The manufacturer does not need to obtain design license if it manufacture pressure vessel designed by itself. Where the manufacturer has no design capability, the design shall be subcontracted to an entity holding the corresponding design license. 2. Companies that have obtained the license of design by analysis must also hold the license of design by rules at the same time.
	Pressure piping design	Long-distance piping (GA1, GA2)	1.Public use piping (GB1, GB2) 2.Industrial piping (GC1, GC2, GCD)	Refer to Note 1 for licensing classification parameters and coverage

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
Manufacturer licensing	Boiler manufacture (including installation (excluding bulk boilers), repair and alteration)	Boiler (A)	Boiler (B)	Refer to Note 2 for licensing classification parameters and coverage
	Pressure vessel manufacture (including installation, repair and alteration)	<ol style="list-style-type: none"> 1. Stationary Pressure vessel <ol style="list-style-type: none"> (1) Large-scale high pressure vessel (A1) (2) Spherical tank (A3) (3) Non-metallic pressure vessel (A4) (4) Ultra-high pressure vessel (A6) 2. Transportable pressure vessel <ol style="list-style-type: none"> (1) Railway tanker (C1) (2) Truck tank, ISO tank (C2) (3) Tube trailer, Tube skid (C3) 3. Hyperbaric oxygen chamber (A5) 4. Gas cylinder <ol style="list-style-type: none"> (1) Seamless gas cylinder (B1) (2) Welded gas cylinder (B2) (3) Special purpose cylinder 	Stationary Pressure vessel <ol style="list-style-type: none"> (1) Other high pressure vessel (A2) (2) Medium and/or low pressure vessel (D) 	<ol style="list-style-type: none"> 1. The pressure grading for stationary pressure vessels is implemented in accordance with the Supervision Regulation on Safety Technology for Stationary Pressure Vessels (the same below) 2. Large-scale high pressure vessel refers to high pressure vessels whose inner diameter is greater than or equal to 2 meters (the same below) 3. Super large pressure vessel refers to pressure vessels which cannot be transported by road or railway because of its large diameter. Manufacturers specializing in the on-site manufacturing of super-large aspheric pressure vessels with medium and low pressure shall obtain the corresponding level of pressure vessel manufacturing license (the license specifies the on-site manufacturing of super-large aspheric pressure vessels with medium and low pressure). Manufacturers with A3 level pressure vessel manufacture license may engage in on-site manufacturing of super-large medium and low pressure aspheric pressure vessels. 4. Special cylinders include fiber

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
				<p>wrapped gas cylinders (B3), cryogenic insulated gas cylinders (B4), and absorption material filled gas cylinders (B5).</p> <p>5. Coverage relations: A1 level covers A2 and D level; A2, C1, and C2 level covers D level.</p> <p>6. Holders of level A5 manufacture license is allowed to manufacture medium and low pressure vessel as ancillary to its product.</p>
Manufacturer licensing	Safety appurtenance manufacture	<ol style="list-style-type: none"> 1. Safety valve (A) 2. Rupture disc device 3. Emergency shut-off valve (A) 4. Gas cylinder valve 	<ol style="list-style-type: none"> 1. Safety valve (B) 2. Emergency shut-off valve (B) 	<ol style="list-style-type: none"> 1. Refer to Note 3 for safety valve and emergency shut-off valve licensing classification parameters 2. Gas cylinder licensing scope does not include gas cylinder valves for non-toxic, non-flammable, and non-strong oxidizing mediums, or valves has no national standards. Gas cylinders not listed in the licensing scope only need to pass type approval.
	Pressure piping component manufacture	<ol style="list-style-type: none"> 1. Pressure piping pipe (A) 2. Pressure piping valve (A1, A2) 	<ol style="list-style-type: none"> 1. Pressure piping pipe (B) 2. Pressure piping valve (B) 3. Pressure piping fitting (seamless pipe fitting (B1, B2), welded pipe fitting (B1, B2), forged pipe fitting), polyethylene pipe fittings 4. Pressure piping flange (steel forged flange) 5. Expansion joint (metal bellows expansion joints (B1, B2)) 6. Component combination device 	<ol style="list-style-type: none"> 1. in the same kind product, level A cover level B 2. Refer to Note 3 for main pressure piping parts classification parameters

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
	Overseas special equipment manufacture	Overseas pressure-bearing special equipment that are subject to licensing: 1. Boiler 2. Pressure vessel 3. Gas cylinder 4. Safety appurtenance (safety valve, rupture disc device, gas cylinder valve, emergency shut-off valve) 5. Pressure piping component (pipe, valve)	None	1. Classification parameters for manufacture licensing of special pressure equipment abroad is the same as that inside China 2. Type tests shall be carried out before putting the imported mechanical and electrical special equipment (elevators, lifting machinery, passenger ropeways, large recreational facilities, non-road motor vehicles in factories) and components into service
	Lift manufacture (including installation, repair and alteration)	Traction type passenger lift (including fireman lift) (A1, A2)	1. Traction drive passenger lift (including fireman elevator) (B) 2. Traction drive goods lift (including fireman elevator) and positive drive goods lift (including explosion protection goods lift) 3. Escalators and moving sidewalks 4. Hydraulic elevator 5. Dumb waiter (including explosion protection dumb waiter)	Refer to Note 4 for lift manufacture licensing classification parameters
	Lifting equipment manufacture (including installation, repair and alteration)	1. Bridge crane, frame crane (A) 2. Mobile crane (A) 3. Portal crane (A)	1. Bridge crane, frame crane (B) 2. Mobile crane (B) 3. Portal crane (B) 4. Mechanical parking equipment 5. Tower crane, tower hoist 6. Cable crane 7. Mast crane	Refer to Note 4 for lifting equipment manufacture licensing classification parameters
Manufacturer licensing	Passenger ropeway manufacture (including installation, repair and alteration)	1. Passenger aerial ropeway (detachable ropeway, double-track reciprocating ropeway, single-wire fixed ropeway)	None	

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
		2. Passenger cable car 3. Passenger towing cableway		
	Non-road motor vehicle manufacture (including repair and alteration)	Powered trucks (trucks) industrial	Non-road sightseeing vehicle (tourist car, tourist train)	Tourist car: the rated number of passengers (including drivers) is 6-23, and the maximum operating speed is no more than 30Km/h. Tourist train: The rated number of passengers (including drivers and safety personnel) is no more than 72, and the maximum operating speed is no more than 20Km/h.
	Large-scale amusement device manufacture (including installation, repair and alteration)	1. Sliding and rotating type (including amusement vehicle and unpowered) (A, B) 2. Unpowered and amusement vehicle 3. Water amusement facilities	None	Refer to Note 6 for large-scale amusement device manufacture licensing classification parameters
Installation, repair and alteration company licensing	Pressure-bearing special equipment installation, repair and alteration	Long-distance pipe installation (GA1, GA2)	1. Boiler installation (including repair and alteration) (A, B) 2. Public use piping installation (GB1, GB2) 3. Industrial piping installation (GC1, GC2, GCD)	1. Refer to Note 2 for boiler installation licensing classification parameters 2. Refer to Note 1 for pressure piping installation licensing classification parameters 3. Stationary pressure vessel

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
				<p>installation is not licensed separately; no license is required for the installation of all types of cylinders</p> <p>4. Pressure vessel manufacturer can install pressure vessel of corresponding level and pressure piping connected with pressure vessel of this level (except inflammable, explosive and toxic medium, and not limited by length and diameter); Pressure vessel installation can be carried out by qualified boiler installation company or pressure piping installation company of any licensed level.</p> <p>5. The alteration and major repairs of pressure vessels shall be carried out by entities that have obtained manufacture license of the corresponding level and shall not be licensed separately</p>
	Lift installation (including repair)	None	<ol style="list-style-type: none"> 1. Traction drive passenger lift (including fireman elevator) (A1, A2, B) 2. Traction drive goods lift (including fireman elevator) and positive drive goods lift (including explosion protection goods lift) 3. Escalators and moving sidewalks 4. Hydraulic elevator 5. Dumb waiter (including explosion protection dumb waiter) 	Refer to Note 4 for licensing classification parameters
	Lifting equipment installation (including repair)	None	<ol style="list-style-type: none"> 1. Bridge crane, frame crane (A, B) 2. Mobile crane (A, B) 3. Portal crane (A, B) 4. Mechanical parking equipment 	Refer to Note 5 for licensing classification parameters

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by provincial market supervision bodies, or by SAMR-authorized provincial bodies	Note
			5. Tower crane, tower hoist 6. Cable crane 7. Mast crane	
	Passenger ropeway installation (including repair)	None	1. Passenger aerial ropeway (detachable ropeway, double-track reciprocating ropeway, single-wire fixed ropeway) 2. Passenger cable car 3. Passenger towing cableway	
	Large-scale amusement device installation (including)	None	1. Sliding and rotating type (including amusement vehicle and unpowered) (A, B) 2. Unpowered and amusement vehicle 3. Water amusement facilities	Refer to Note 6 for licensing classification parameters
	Non-road motor vehicle repair	None	1. Powered industrial trucks (trucks) 2. Non-road sightseeing vehicle (tourist car, tourist train)	Tourist car: the rated number of passengers (including drivers) is 6-23, and the maximum operating speed is no more than 30Km/h. Tourist train: The rated number of passengers (including drivers and safety personnel) is no more than 72, and the maximum operating speed is no more than 20Km/h.
Filling company licensing	Transportable pressure vessel	None	All	

Note 1: Licensing levels for design and installation of pressure piping

Licensing level	Licensing scope	Note
GA1	1. Long-distance gas piping with design pressure greater than or equal to 4.0 MPa (gage pressure, same below) 2. Long-distance oil piping with design pressure greater than or equal to 6.3 MPa	Level GA1 covers level GA2
GA2	Long-distance piping other than GA1 level	—
GB1	Gas piping	—
GB2	Heat distribution piping	—
GC1	1. The process piping for transporting the medium of acute toxicity category 1, the gas medium of acute toxicity category 2 and the liquid medium of acute toxicity category 2 with working temperature higher than its standard boiling point as specified in the Catalogue of Hazardous Chemicals. 2. The process piping for transporting fire hazard Class A, B combustible gases or Class A combustible liquids (including liquefied hydrocarbons) as specified in GB50160 “Code for Design and Fire Protection of Petrochemical Enterprises” and GB50016 “Code for Design and Fire Protection of Architectural Buildings”, and the design pressure is greater than or equal to 4.0 MPa; 3. The process piping for transporting fluid medium, whose design pressure is greater than or equal to 10.0MPa, or whose design pressure is greater than or equal to 4.0MPa and design temperature is higher or equal to 400°C.	Level GC1 and GC2 covers level GCD
GC2	1. The process pipeline other than GC1level 2. Refrigeration pipeline	—
GCD	Power conduit	—

Note2: Licensing levels for boiler manufacture and installation

Licensing level	Licensing scope (Note*)	Note
A	Steam and hot water boilers with rated outlet pressure greater than 2.5 MPa	Level A covers level B. Level A boiler installation covers level GC2 and level GCD pressure piping installation
B	Steam and hot water boilers with rated outlet pressure less than or equal to 2.5 MPa; organic fluid boilers	Level B boiler installation covers level GC2 pressure piping installation
<p>Note* :</p> <ol style="list-style-type: none"> 1. The licensing scope of pressure-bearing parts of Class A boiler includes drum, header, spiral pipe, membrane wall, and fin type economizer. The manufacture of other pressure-bearing parts is covered by the license of the above parts, and is not licensed separately. Boiler pressure-bearing components within the licensing scope of Class B shall be manufactured by entities with a boiler manufacture license, and shall not be licensed separately. 2. Boiler manufacturers may install boilers manufactured by themselves (except bulk boilers). Boiler installers may install pressure vessels and pressure pipes connected with boilers (except flammable, explosive and toxic media, which are not limited by length or diameter). 3. Boiler alteration and major repairs shall be carried out by entities that have acquired the license for boiler installation or manufacture at the corresponding level, and shall not be licensed separately. 		

Note 3: Licensing levels for pressure piping pipes, valves and safety valves

Licensing product category	Licensing levels (same product category, level A covers level B)	
	Level A	Level B
Safety valve	<ol style="list-style-type: none"> 1. Safety valves with nominal pressure greater than or equal to 10 MPa and nominal diameter greater than or equal to 100 mm; 2. Safety valve with nominal pressure greater than or equal to 4.0 MPa and design temperature lower than or equal to -101°C 	Other safety valves
Emergency shut-off valve	Emergency shut-off valve for transportable pressure vessel	Other emergency shut-off valve
Pressure piping pipe (seamless steel pipe, welded steel pipe, and non-metallic material pipe)	<ol style="list-style-type: none"> 1. Seamless steel pipe for pressure piping with nominal diameter greater than or equal to 150 mm and nominal pressure greater than or equal to 10 MPa 2. Welded steel pipe with nominal diameter greater than or equal to 800mm for oil and gas transportation 3. Polyethylene pipes with nominal diameter greater than or equal to 450mm for gas transportation 	Seamless steel pipes, welded steel pipes, polyethylene pipes other than level A; other non-metallic pipes material pipes.
Pressure piping valve (metallic valve)	<p>A1: Metal valves with nominal pressure greater than or equal to 10 MPa and nominal diameter greater than or equal to 300 mm</p> <p>A2: Metal valves with nominal pressure greater than 4.0 MPa and design temperature lower than or equal to -101°C</p>	Other metal valves with nominal pressure greater than 4.0 MPa and nominal diameter greater than or equal to 50 mm.
Pressure piping fitting (seamless steel pipe fitting, seamed pipe fitting, welded forged pipe fitting, and polyethylene pipe fitting)	—	<p>Forged pipe fitting; polyethylene pipe fitting</p> <p>B1: Seamless pipe fittings with nominal diameter greater than or equal to 300 mm and lower limit of standard tensile strength greater than 540 MPa; seamed pipe fittings with lower limit value of standard tensile strength greater than 540 MPa;</p> <p>B2: Other seamless fittings and seamed fittings</p>

Expansion joint (Metal corrugated expansion joint)	—	B1: Metal bellows expansion joint with nominal pressure greater than or equal to 4.0 MPa, and the nominal diameter greater than or equal to 500 mm; B2: Other metal bellows expansion joints
Flange (steel forged flange)	-	Metal corrugated expansion joint
Component combination device	The scope of licensed products shall be governed by the relevant safety technical codes	

Note 4: Licensing levels for Licensing levels for lifts

Product type	Licensing levels			Note
	A1	A2	B	
Traction drive passenger lift (including fireman elevator)	Rated speed > 6.0m/s	2.5m/s < rated speed ≤ 6.0m/s	Rated speed ≤ 2.5m/s	Level A1 covers level A2 and level B; level A2 covers level B
Traction drive goods lift and positive drive goods lift (including explosion protection goods lift)	No licensing level			
Escalators and moving sidewalks	No licensing level			
Hydraulic elevator	No licensing level			
Dumb waiter and explosion protection dumb waiter	No licensing level			

Note 5: Licensing levels for Lifting Equipment

Product type	Licensing levels		Note
	A	B	
Bridge crane and frame crane	Above 200t	Equal to or below 200t (Note*)	Level A covers Level B, uayside container cranes and loading and unloading bridges shall be included in level A license.
Mobile crane	Above 100t	Equal to or below 100t (Note*)	Level A covers Level B
Portal crane	Above 40t	Equal to or below 40t (Note*)	Level A covers Level B
Mechanical parking equipment	No licensing level		
Tower crane and tower hoist			
Cable crane			
Mast crane			

Note*: “t” refers to rated lifting weight(ton)

Note 6: Licensing levels for Large Amusement Device

Product type	Licensing levels		Note
	A	B	
Sliding and rotating type (including amusement vehicle and unpowered)	<ol style="list-style-type: none"> 1. Sliding vehicles with running speed no less than 50km/h and rail height no less than 10m 2. Overhead tourist cars with rail height no less than 10m and single car load no less than 40 persons 3. Slideways with length no less than 800m 4. Ferris wheels with height no less than 50m and single cabin load no less than 38 persons 5. Gyroscopes with inclination angle no less than 70 degrees and rotary diameter no less than 12m. 6. Flight towers with running height no less than 30m and load no less than 40 persons 7. Carousels with swing diameter no less than 14m and load no less than 90 persons 8. Self-control aircrafts with swing diameter no less than 14m and load no less than 40 persons 	Sliding and rotating amusement facilities other than level A.	Level A covers level B, manufacturers who obtain sliding and rotating type license can manufacture unpowered and amusement vehicle
Amusement vehicle and unpowered	No licensing level for racing cars, mini trains, bumper cars and unpowered recreational facilities		
Water amusement facilities	No licensing level		

Annex 2

Special Equipment Operating Personnel Qualifications and Items

No.	Type	Item	Item code
1	Special equipment safety management	Special equipment safety management	A
2	Boiler operation	Industrial boiler operation	G1
		Power station boiler operation (Note 1)	G2
		Boiler water treatment	G3
3	Pressure vessel operation	Quick open pressure vessel operation	R1
		Transportable pressure vessel filling	R2
		Oxygen chamber maintenance	R3
4	Gas cylinder operation	Gas cylinder filling	P
5	Lift operation	Lift repair (Note 2)	T
6	Crane operation	Crane rigger	Q1
		Crane driver (Note 3)	Q2
7	Passenger ropeway operation	Passenger ropeway repair	S1
		Passenger ropeway driver	S2
8	Large amusement device operation	Large amusement device repair	Y1
		Large amusement device operation	Y2
9	Non-road motor vehicle operation	Truck driver	N1
		Tourist car and tourist train driver	N2
10	Safety appurtenance repair	Safety valve check	F
11	Special equipment welding	Metal welding	(Note 4)
		Non-metallic welding	

Note1: Qualification assessment scope is less than 300 MW (excluding 300 MW) of the power plant boiler operator; 300 MW power plant boiler operator shall be trained by the boiler user in accordance with the specifications of the power industry.

Note2: Elevator repair operations include repair and maintenance.

Note3: According to the application requirements of applicants, the scope can be limited, specifically for bridge crane drivers, frame crane drivers, tower crane drivers, portal crane drivers, cable crane drivers, mobile crane drivers, elevator drivers. For example, "Crane Driver (Bridge Portal Crane Only)" and so on.

Note4: The code number of welding operators for special equipment shall be implemented in accordance with the Rules for Welding Operators of Special Equipment.

Annex 3

Special Equipment Inspection and Testing Personnel Qualification Items

Licensing Category	Item	Sub-items licensed by SAMR	Sub-items licensed by (SAMR-authorized) provincial market supervision bodies	Notes
Special equipment inspection and testing personnel qualification	Special equipment inspector qualification	Inspector Senior inspector	None	
	Special equipment NDT personnel qualification	Level III Level II (except RT, UT, MT, PT)	Level II (RT, UT, MT, PT) Level I	
	Boiler water (medium) quality treatment inspector qualification	Inspector Senior inspector	None	