

Emission Regulations on China, Korea and India

Model Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Chinese National Environmental Protection Agency (Sales date base)																	
() Note: (NOx or <u>NOx+NMHC</u> / CO / PM) or (NOx / HC / CO / PM) Unit: g/kWh																	
0 < P < 8							Stage1 (18.4/12.3/---		Stage2 (10.5 / 8.0 / 1.0)								
8 ≤ P < 18 (19)							Stage1 (12.9/8.4/---		Stage2 (9.5 / 6.6 / 0.8)					Stage3 (DRAFT) (7.5 / 5.5 / 0.6)			
18 (19) ≤ P < 37							Stage1 (10.8/2.1/8.4/1.0)		Stage2 (8.0 / 1.5 / 5.5 / 0.8)								
37 ≤ P < 75							Stage1 (9.2/1.3/6.5/0.85)		Stage2 (7.0 / 1.3 / 5.0 / 0.4)					Stage3 (DRAFT) (4.7 / 5.0 / 0.4)			
75 ≤ P < 130							Stage1 (9.2/1.3/5.0/0.7)		Stage2 (6.0 / 1.0 / 5.0 / 0.3)					Stage3 (DRAFT) (4.0 / 5.0 / 0.3)			
130 ≤ P < 560							Stage1 (9.2/1.3/5.0/0.54)		Stage2 (6.0 / 1.0 / 3.5 / 0.2)					Stage3 (DRAFT) (4.0 / 3.5 / 0.2)			
China Beijing (Sales date base)																	
() Note: (NOx or <u>NOx+NMHC</u> / CO / PM) or (NOx / HC / CO / PM) Unit: g/kWh. Smoke: (Engine Smoke / Equipment smoke) Unit: m ⁻¹																	
P < 37														Stage3 (7.5 / 5.5 / 0.6) Smoke: (0.8 / 1.0)	Stage4 (7.5 / 5.5 / 0.6) Smoke: (0.5 / 0.6)		
37 ≤ P < 56														Stage3 (4.7 / 5.0 / 0.4)	Stage4 (4.7 / 5.0 / 0.025)		
56 ≤ P < 75														Stage3 (4.7 / 5.0 / 0.4)	Stage4 (3.3 / 0.19 / 5.0 / 0.025)		
75 ≤ P < 130														Stage3 (4.0 / 5.0 / 0.3)	Stage4 (3.3 / 0.19 / 5.0 / 0.025)		
130 ≤ P < 560														Stage3 (4.0 / 3.5 / 0.2)	Stage4 (2.0 / 0.19 / 3.5 / 0.025)		
Korea (KMOE) construction equipment Manufacture date (Import date)																	
0 < P < 8															Stage4(7.5 / 8.0 / 0.4)		
8 ≤ P < 19															Stage4(7.5 / 6.6 / 0.4)		
19 ≤ P < 37							Stage1 (9.5 / 5.5 / 0.8)	Stage2 (7.5 / 5.0 / 0.4)	Stage3 (7.5 / 5.5 / 0.3)					Stage4(4.7 / 5.5 / 0.03)			
37 ≤ P < 56							Stage1 (9.2 / 1.3 / 5.5 / 0.6)	Stage2 (7.5 / 5.0 / 0.4)	Stage3 (4.7 / 5.0 / 0.4)					Stage4(4.7 / 5.0 / 0.03)			
56 ≤ P < 75							Stage1 (9.2 / 1.3 / 5.5 / 0.6)	Stage2 (7.5 / 5.0 / 0.4)	Stage3 (4.7 / 5.0 / 0.4)					Stage4(0.4 / 0.19 / 5.0 / 0.025)			
75 ≤ P < 130							Stage1 (9.2/1.3/5	Stage2 (6.6 / 5.5 / 0.3)	Stage3 (4.0 / 5.0 / 0.3)					Stage4(0.4 / 0.19 / 5.0 / 0.025)			
130 ≤ P < 560							S1	Stage2 (6.6 / 3.5 / 0.2)	Stage3 (4.0 / 3.5 / 0.2)					Stage4(0.4 / 0.19 / 3.5 / 0.025)			
Korean Ministry of Environment(KMOE) Agricultural Equipment Equipment Production Date (Custom Clearance for Import)																	
0 < P < 8							No Regulation							Stage4 (7.5 / 8.0 / 0.4)			
8 ≤ P < 19							No Regulation							Stage4 (7.5 / 6.6 / 0.4)			
19 ≤ P < 37							No Regulation							S3 (7.5/5.5/0.3)	Stage4 (4.7 / 5.5 / 0.03)		
37 ≤ P < 56							No Regulation							S3 (4.7/5.0/0.4)	Stage4 (4.7 / 5.0 / 0.03)		
56 ≤ P < 75							No Regulation							Stage3 (4.7/5.0/0.4)	Stage4 (0.4/0.19/5.0/0.025)		
75 ≤ P < 130							No Regulation							Stage3 (4.0/5.0/0.3)	Stage4 (0.4/0.19/5.0/0.025)		
130 ≤ P < 560							No Regulation							Stage3 (4.0/3.5/0.2)	Stage4 (0.4 / 0.19 / 3.5 / 0.025)		
India/Agriculture tractor (April 10, 2007)																	
0 < P < 8																	
8 ≤ P < 19																	
19 ≤ P < 37																	
37 ≤ P < 75																	
75 ≤ P < 130																	
130 ≤ P < 560																	
India/Construction Equipment Vehicles (April 10, 2007)																	
0 < P < 8																	
8 ≤ P < 19																	
19 ≤ P < 37																	
37 ≤ P < 75																	
75 ≤ P < 130																	
130 ≤ P < 560																	
India/Gen Set Applications (May 17, 2002)																	
() Note: (NOx or <u>NOx+NMHC</u> / CO / PM) or (NOx / HC / CO / PM) Unit: g/kWh. Smoke: Unit: m ⁻¹																	
0 < P ≤ 19															Stage3 (7.5 / 3.5 / 0.3) Smoke: 0.7 m ⁻¹		
19 < P ≤ 75															Stage3 (4.7 / 3.5 / 0.3) Smoke: 0.7 m ⁻¹		
75 < P ≤ 176															Stage3 (4.0 / 3.5 / 0.2) Smoke: 0.7 m ⁻¹		
176 < P ≤ 800															Stage3 (4.0 / 3.5 / 0.2) Smoke: 0.7 m ⁻¹		
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2016	2017	2018

注: 1

Entered into force

Drafting or studying

No limit/ no regulation

2 *Italic bold red character shows the limit requires aftertreatment for PM.*