

Cement

SC imposes ban on petcoke in Rajasthan- expect transitory impact

The Supreme Court of India has ordered a ban on petcoke usage in Rajasthan, Uttar Pradesh and Haryana from 1Nov'17. On average, 76% of the fuel requirement in cement companies is met through petcoke. Additionally, Rajasthan is an important state for the cement industry on account of its large limestone reserves (12% of India's overall reserves). The blanket ban on petcoke in the region will adversely impact the cement companies with exposure to the states. We expect Shree, JK Lakshmi and JK Cement to be impacted the most (negative impact of 3-5% on FY18E EBITDA). However, upon reading the judgement along with the environment report, we believe the impact to be transitory in nature as cement companies could be exempted in the medium term, as recommended by the EPCA in its report.

- Supreme Court bans petcoke usage in Rajasthan, UP and Haryana:** The Supreme Court of India (SC) in its order dated 24Oct'17, has banned petcoke use in Rajasthan, Uttar Pradesh and Haryana citing pollution levels in the NCR. The ban will come into effect in 1Nov'17. Additionally, the SC has imposed a fine of INR 0.2mn on the Ministry of Environment, Forests and Climate Change citing **1)** inaction on the Ministry's part in setting the pollution norms for 16 industries even after the communication regarding draft standards for these industries were received from the CPCB and **2)** failure on the Ministry's part to come out with the draft notification on two industries for which it had received the draft standards three and a half years ago.
- Case History:** The Environment Pollution (Prevention and Control) Authority (EPCA) – on 4Apr'17 – submitted a report in relation to a petition filed regarding air pollution. The SC, in its order dated 2May'17, after considering the report, directed the Central Government and Central Pollution Control Board (CPCB) to fix the standards of emission norms for SO₂, NO_x and NO₂ for 34 industries (Exhibit 2). Additionally, SC mentioned that Rajasthan, Uttar Pradesh and Haryana had no objection on placing a ban on the usage of furnace oil and petcoke. However, in August, the Rajasthan government – after examining the National Green Tribunal's (NGT) order and in consultation with the Rajasthan Pollution Control Board – decided to place petcoke under approved fuels.
- Importance of Rajasthan:** Rajasthan is an important state for cement production, accounting for 12% of the India's overall limestone reserves (c.21,660 MT). As a result, several integrated/clinkerisation units exist in the state. Given the favourable cost economics, majority of the cement industry has shifted from coal to petcoke over the past few years. Petcoke usage in India posted a CAGR of 24% over FY13-FY17 (Exhibit 1). Petcoke – currently costing USD105/t – is 23% cheaper than imported coal on a per kilo calorific value basis. Additionally, cement plants have captive thermal power plants that also use petcoke as fuel (impact on margins will be lower as a lower proportion of power is produced with petcoke as a fuel).
- Shree, JK Lakshmi and JK Cement to be impacted the most:** We estimate an average impact of c.-INR76/t on EBITDA if companies swap from petcoke to imported coal immediately. Companies with high exposure to Rajasthan – Shree Cement (72% exposure), JK Lakshmi (78% exposure) and JK Cement (71% exposure) – are expected to be impacted the most due to this ban. We expect an impact of 3%-5% on the FY18E EBITDA/t of these companies (Exhibit 3). However we expect insignificant downtime due to technical issues on account of shift from petcoke to imported/domestic coal.
- Cement could be exempted, in our view:** We believe this ban is transitory in nature as the EPCA, in its report, recommended that the use of petcoke be allowed in cement plants where emissions can be controlled (Exhibit 4, 5). Hence, subsequent orders from SC/states may see the cement plants being exempted from the current order. Cement sector will have a material impact if Government decides to increase the cost of petcoke to reduce its attractiveness (inline with clean energy cess applicable on coal in India).



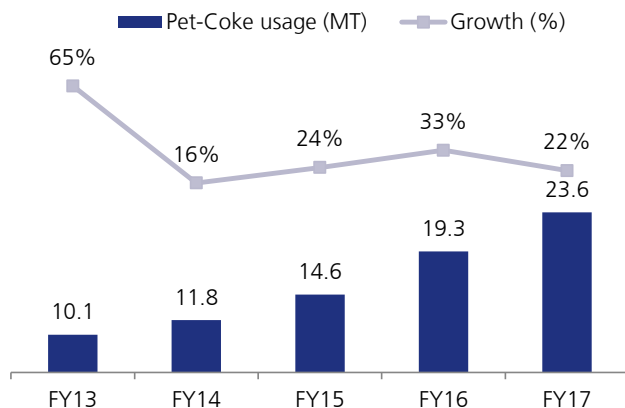
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Exhibit 1. Increasing petcoke usage in India



Source: JM Financial, Industry

Exhibit 2. List of 34 industries in SC order

Supreme court directs CPCB and Central Government to set standards of SO₂, NO_x and NO₂ emission norms for these 34 industries

Sugar	Leather industry	Foundries
Thermal Power	Fertilizer	Small boilers
Cotton Textile	Calcium Carbide	Aluminium Plants
Composite Woollen mills	Carbon black	Petro Chemical
Dye	Copper, lead and zinc	Pesticides
Electroplating	Nitric Acid	Tannery
Cement	Sulphuric Acid	Inorganic Chemical
Stone Crushing	Iron and Steel	Glass Industry
Coke Ovens	Natural rubber	Lime kiln
Synthetic Rubber	Asbestos	ceramic
Pulp and Paper	Caustic soda	
Distilleries	Re-heating furnaces	

Source: Industry, JM Financial

Exhibit 3. EBITDA/t impact on cement players

	% Pet-coke in Kiln	Capacity in banned regions mnT	Total Capacity mnT	Impact/t INR	FY18E EBITDA/t INR	Proportionate impact in FY18 INR	EBITDA/t impact
Ultratech	74%	20.6	87.5	-75	934	-7	-1%
Ambuja	67%	2.6	29.7	-68	806	-2	0%
ACC	65%	1.5	33.3	-78	569	-1	0%
Shree Cement	100%	21.2	29.3	-100	1,142	-30	-3%
JK Lakshmi Cement	85%	9.6	12.3	-85	545	-28	-5%
JK Cement	75%	7.5	10.5	-88	554	-26	-5%

Source: Company, JM Financial, Industry

Exhibit 4. Takeaways from EPCA report**February 16, 2017 MoEF&CC meeting on use of pet coke and co-processing of waste in fuel in cement kilns**

The meeting convened under the chairpersonship of secretary MoEF&CC took the following decisions (Annexure 2):

- i. **Pet coke may be allowed only on cement kilns, where there is use of limes and combustion and emissions are controlled.**
- ii. Availability of alternate fuels like electricity and natural gas in Delhi-NCR region, be assessed further with inputs from Ministry of Petroleum and Natural Gas.
- iii. The Ministry of Petroleum and Natural Gas should assess the demand and supply of natural gas in NCR and meet the additional requirement.
- iv. Decision on use of pet coke as fuel will be taken only after examination of study being conducted by CPCB on impact of pet coke and FO as fuel in different sectors of industries.

March 3, 2017 affidavit filed by MoEF&CC in compliance with order dated February 6, 2017

The submissions based on the report of CPCB through National Environment Engineering Research Institute (NEERI) were as follows:

1. The report reveals that impact of pet coke and FO in NCR in terms of secondary particulates in Delhi is not evident. It may be noted that pet coke and FO is already prohibited in Delhi.
2. Further studies have to be done to assess impact in other NCR towns due to use of pet coke and FO.
3. **The pet coke and FO may be used in cement industries and other industries that have appropriate pollution control systems particularly for controlling SO₂ and NO_x emissions**
4. In respect of industries that use pet coke and FO and do not have appropriate SO₂ and NO_x pollution control systems may be given 7 months' time to switch over to natural gas or electricity

EPCA recommendation

1. The distribution, sale and use of furnace oil and pet coke would be strictly banned in NCR. The Air Act and Environment Protection Act provide that such actions can be taken in hot spot – air pollution control areas.
2. **Pet coke should be allowed only in cement plants, where combustion and emissions are controlled or in any other industry, where it is not a combustion fuel.** However, if any cement plant or other industry requires the use of pet coke as non-combustion fuel in NCR, it will have to seek permission from CPCB and EPCA.
3. All other industrial fuels, from refineries, chemical plants or waste products, which do not have specifications laid down by BIS would be banned for use in NCR. Any new fuel to be added to the list of acceptable fuels will be done only after consideration of its parameters as laid down by BIS and its fuel test reports by CPCB and EPCA.
4. The import of pet coke and furnace oil should be restricted and regulated so that its use is monitored. These products should be removed from the Open General License (OGL) list and taken to the restricted or negative list. The objective should be to utilize domestic by-products or waste products so that it can be reused in industries, and not to import these
5. NCR governments should provide fiscal incentives to clean fuel as against polluting fuel and ensure that electricity supply is assured, reliable and cost-effective for use as power

Source: Company, JM Financial

Exhibit 5. Emission standards for cement plants

Emission standards for kiln without co-processing

A – Emission Standards			
(i) Rotary Kiln –without co processing			
	Date of Commissioning	Location	Concentration not to exceed, in mg/Nm³
	(a)	(b)	(c)
Sulphur Dioxide (SO ₂) in mg/Nm ³	Irrespective of date of commissioning	Anywhere in the country	100, 700 and 1000 when pyritic sulphur in the limestone is less than 0.25%, 0.25 to 0.5% and more than 0.5% respectively.
Oxides of Nitrogen (NO _x) in mg/Nm ³	After the date of notification (25.8.2014)	Anywhere in the country	(1) 600
	Before the date of notification (25.8.2014)	Anywhere in the country	(2) 800 for rotary kiln with In Line Calciner (ILC) technology. (3) 1000 for rotary kiln using mixed stream of ILC, Separate Line Calciner (SLC) and suspension pre-heater technology or SLC technology alone or without calciner.

Emission standards for kiln without co-processing

A- Emission Standards			
Rotary Kiln – with co-processing of Wastes			
	Date of Commissioning	Location	Concentration not to exceed, in mg/Nm³
	(a)	(b)	(c)
SO ₂ *	irrespective of date of commissioning	anywhere in the country	100, 700 and 1000 when pyritic sulphur in the limestone is less than 0.25%, 0.25 to 0.5% and more than 0.5% respectively.
NO _x *	After the date of notification (25.8.2014)	anywhere in the country	(1) 600
	Before the date of notification (25.8.2014)	anywhere in the country	(2) 800 for rotary kiln with In Line Calciner (ILC) technology. (3) 1000 for rotary kiln using mixed stream of ILC, Separate Line Calciner (SLC) and suspension pre-heater technology or SLC technology alone or without calciner.

Source: JM Financial, Industry

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