I-2 Summary of Polyacrylamide of manufacturers

- Situation of Chinese PAM Manufacturers

[redacted] Most of new PAM producers have small-scale production capacity; they enter the PAM market during the fast development of Chinese PAM industry. From the bellow table, the average output of new producers was 1,100 tons in 2006.

Table I-2-1 Summary of Chinese manufacturers in 2006

Status	**Number of manufacturers**		**Total capacity (MT/year on base of 90% solid)**		**Production in 2001 (MT on base of 90% solid)**	
	2001	2006	2001	[redacted]	2001	[redacted]
Active	45	78	217,572	[redacted]	121,937	[redacted]
Entering the market	5 (after 2001)	17(after 2002)	7,000	[redacted]	250	[redacted]

The characteristics of Chinese PAM manufacturers are still the same as the situation in 2002, namely:

- large number of manufacturer
- small production capacity of each manufacturer

Among the Chinese PAM manufacturers, 11 have the capacity of 10,000MT/year, or more. The capacity of these manufacturers accounts for 66.80% of the total PAM capacity in China while the actual production in 2006 accounts for 72.31% of the total level. Obviously these manufacturers dominate the Chinese market. Also, these large PAM manufacturers produce AM themselves.

I-4 Problems Facing the Polyacrylamide Industry in China

Though polyacrylamide industry has developed fast in recent years, it is still faced with many problems, such as small production scale, outdate technology, monotonous product structure and small consumption fields, etc.

✓ Disordered market

On the one hand, fake or shoddy PAM products are prevalent in China's PAM industry, especially in Henan provinces. The processers add salt or sugar in the high molecular weight PAM that they purchase from other PAM producers, and then they sell it at a low price. This seriously disturbs the PAM market in China and makes the competition vicious. The PAM industry is lack of management or administration from government organizations or industry associations.

II Import Export Situation of Polyacrylamide in 2001

II-2 Import & Export Summary

The import of PAM in China has been stable in recent years, but the export volume of PAM increased from 131 tonnes in 2001 to 26,243 tonnes in 2006. The large growth shows that more and more PAM producers expend their production capacity and can produce competitive PAM for export in recent years. For example, the SNF China expand the production with the capacity of 200,000 t/a in 2003, Beijing Henju also expand the production with the capacity of 40,000 t/a in 2004.

China mainly exports PAM to South Africa, United States, Australia and Singapore.

The imported volume of PAM in 2006 only accounted for 9.78% of total PAM consumption, and the imported PAM is mainly the high-end category, such as cationic PAM and amphoteric PAM.

III-1.1 Overview of Oil Exploitation industry in China

Chinese crude oil industry grows stably in recent years. The industry of crude oil --- as an important energy resource is greatly influenced by the national energy policy, such as energy safety policy.

In 2006 the output of crude oil in China was 183,675,900 tonnes. The output growth of crude oil in China has been stable and slow in recent years. The average annual growth rate of crude oil output in China was 2.66% from 2002 to 2006. The major reasons for China to maintain the stable and low growth of crude oil output are as follows:

- ✓ Chinese government hopes to ensure its energy safety in the long term and doesn't want its crude oil resources to be used up soon.
- ✓ China increases the volume of imported crude oil to meet the demand of domestic market.

FigureIII-1.1-1 The output of crude oil in China from 2002 to 2006