EXECUTIVE SUMMARY

1. Tyre retreading practice is a service industry for users of tyres where a used tyre is rebuilt to work as a new one with enhanced life. Tyre retreading, especially the hot process, is being practiced since long time in India and has been accepted as a regular feature by the tyre users. All varieties of tyres are retreaded by this process. Increase in vehicle population and the rising prices of tyres have provided a potential for tyre retreading activity.

2. Precured tyre retread technology has entered into the Indian market during the year 1984-85 and is substituting the old conventional "Hot Cap" tyre retreading practice. At present precured retread is used for HCV truck and bus tyres only and that too, for the present, for cross-ply design tyres only. Radial tyres have now entered the Indian automobile sector. These can be retreaded only with precured retread. However, its retreading could be attempted by carrying out modifications in the old conventional "Hot Cap" tyre retreading practice.

3. There are at present 6 units manufacturing precured tyre retread with a licenced and installed capacity of 39,600 tonne per year. The production of these units is understood to be around 10,000 tonne, 14,500 tonne, 20,000 tonne and 26,500 tonne during the year 1986, 1987, 1988 and 1989 respectively.

4. Out of these six units, two units viz. ELGI and INDAG have technical tie-up/collaboration with reputed foreign rubber manufacturers/precured retread manufactures and they have entered the market simultaneously during the years 1984-86. The other four units viz. SUNDARAM, MRF, SPEEDWAYS and MIDAS have developed the product technology with their own indigenous efforts.

5. These six units, as parent units, manufacture the precured tyre retread and supply these to their franchise units who carry out the actual tyre retreading/rebuilding activity. These franchise units are spread all over India for prompt localised service to the tyre users. These parent units, under franchise terms, offer complete rebuilding process know how, main production machines and all the required material.

6. The precured tyre retread has well penetrated in the tyre retread market. The prevailing market share of precured retread is around 27.5% and it is estimated that by the year 1995 it would reach a level of 50%. Due to the fact that cost of tyre retreading by precured method is more by around 25 to 50% than that of by conventional "Hot Cap" method, the "Hot Cap" method will continue to be in the market in spite of the advantages like enhanced life and reliability offered by precured retread method. At present the large consumers for precured tyre retread are large transport fleet owners/organisers and State Road Transport Corporations.

7. The process, plant and machinery, raw materials, plant capacity, operating parameters, applications, product mix adopted by all the 6 units are more or less similar.

8. The retread industry being a service industry has close liason with tyre manufacturing industry and all the innovations/ developments, especially in regard to materials and performance parameters, get imparted automatically, into the retreading practices.

9. All the materials going in for manufacture of precured tyre retread are available indigenously and conform to standard specifications and quality. I.S. specification for precured tyre retread has already been drafted and the same is expected to be published soon.

10. As the industry is catching up its market share, and the end user is largely achieving the claimed performance (enhanced life), it

can be assumed that the precured retread manufacturers have absorbed the technology and are in a position to produce quality product. At present there seem to be no technological gaps that could be pointed out or surfaced out. However, following could be the areas where efforts can be made to improve the performance.

a) Improvement in enhanced life performance i.e. enhanced life from around 70 to 80% of that of the new tyre to 95% to 100% as claimed by the technology.

b) Extension of the application to cars, jeeps and motor cycle tyres.

c) The precured retread industry should get ready for the radial tyre technology. The developmental efforts, and attempt to identify the correct needs of technological assistance should be started now, so that by the time the radial tyres penetrate and has adequate population, the industry will be ready to provide the servicing support.

d) Improvement (reduction) in production cycle time for retreading/rebuilding of tyres for achieving better productivity and energy saving.

e) Indigenous efforts should be made to make conventional "Hot Cap" retreading process suitable for radial tyres.

f) Emphasis should be laid on increasing the export market, through franchise tie-ups.