## The new synthetic menthol plant of Haarmann & Reimer

At an elaborate reception ceremony, Haarmann & Reimer GmbH dedicated its new menthol plant in Bushy Park, South Carolina. This new plant is in continuous production, producing only 1-menthol. The total employment at this plant is 49, with 32 people in production. These 32 operate the plant 24 hours a day, seven days a week. The process is a very intricate and complicated series of completely continuous operations combined with automatic sequencing batch processes. An extensive series of recorders and controllers allow the complete plant to be monitored and operated from a fifty foot long indicating, recording and control panel. The plant at Bushy Park, South Carolina is on property adjacent to another Bayer subsidiary, Mobay Chemical Company. Steam and other process services are supplied to the menthol plant from the Mobay manufacturing complex.

In the H&R synthetic menthol process, thymol is prepared via the alkylation of metacresol. Its subsequent hydrogenation yields a mixture of four racemates of isomeric menthols. From this mixture pure d-, l-menthol is isolated and the remaining menthol isomers are recycled. The racemic menthol is separated into the pure l-menthol and pure d-menthol antipodes. The l-menthol is crystallized and compacted into pellets while the d-menthol is recycled.

At the news conference, the President of Haarmann & Reimer GmbH, Dr. Claus Skopalik reported that the design capacity of this plant is 1,500,000 pounds a year, approximately 50% of the total U.S. consumption of l-menthol. However, they expect to export a major part of the production.

Dr. Skopalik gave further details on the operations of the Haarmann & Reimer group, reporting that 1977 sales were \$130 million, of which \$5 million were in the U.S. The target for 1978 in the U.S. is approximately \$10 million.

Dr. Skopalik indicated that his company is the largest in the flavor/fragrance industry in Germany and fifth largest in the world. The company's goal in the next ten years is to take the same percent of the U.S. market that they now have of the world market, which is between 4% and 4½%.

During the last three years, 90% of the investment of the H&R group has been in the United States. During the next five years, it is expected that 50% of investments will be in the headquarters complex in Holzminden, primarily in support of research, and 50% divided between the industrialized countries and those developing countries which have the greatest potential growth in sales.

Haarmann & Reimer was the first company in the synthetic aroma chemical business. It began operations in 1874 with the discovery and production of synthetic vanillin. It became a member of the Bayer AG group several years ago.

Photos: above; The new menthol plant in Bushy Park, South Carolina; left; a model of the H&R offices and laboratories under construction in Branchburg, New Jersey; right; L. Kuemper, director of communications for H&R GmbH who organized the open house, with Dr. C. Skopalik, president of H&R GmbH.

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