

Louisiana Crude Oil Refinery Survey

December 1992

by Alan A. Troy, P.E.

In February 1992 the Technology Assessment Division conducted its third telephone survey of Louisiana's crude oil refineries. Respondents report their primary near term focus is to implement strategies to cope with the November 1, 1992 deadline mandated by the 1990 Clean Air Act Amendments (CAA) for using cleaner-burning, oxygenated gasoline in 41 cities that exceed federal ambient air standards for carbon monoxide. The secondary focus is to prepare for the CAA October 1, 1993 deadline for producing low sulfur diesel fuel. All diesel fuel sold in the U.S. is subject to this deadline. Although no Louisiana cities are affected by the CAA gasoline mandate, Louisiana refineries do provide a substantial amount of gasoline in markets outside the State.

Many larger refineries are undertaking major process reconfiguration projects to comply with the CAA. They include new oxygenate production units, blending facilities, and diesel hydrotreating units. Projects by refineries that are already using oxygenates as gasoline octane enhancers are more modest because less modifications are necessary. Some of these projects are complete and others are scheduled to be finished by the CAA deadlines.

Small refineries, generally defined as those with an operating capacity of less than 50,000 barrels per calendar day (bcd), are less likely to be able to economically justify the large capital outlay necessary for such projects. Nevertheless, most survey respondents of the ten operating small Louisiana refineries were positive about their prospects. They tend to concentrate on "niche" markets with a product mix that is minimally subject to the CAA mandated fuel formulations. Five of the ten do not produce any gasoline at all, including one 12,000 bcd refinery reactivated in 1991. Two presently closed 10,000 bcd refineries are scheduled to be reactivated this year and will not produce gasoline either. Of the eight small refineries that produce diesel fuel, few indicated any specific plans to reduce the sulfur content to the CAA mandated level. Since the October 1, 1993 deadline is not imminent, apparently they are still evaluating their options.

Since our October 1990 survey, there have been several changes in name, ownership, operator, product slate, and operating capacity of individual refineries. Although there have been some major changes in product slate among individual refineries, the total weighted State product slate percentages have changed very little except for leaded gasoline, which is no longer in production (See table on back). There have been some fairly substantial increases in individual refinery operating capacity, but the total Louisiana operating capacity increased only 3% from 2,248,200 bcd to 2,315,000 bcd. The State ranks second, after Texas, in refinery operating capacity among the 50 states. The weighted State average capacity utilization rate declined from 92.0% to 89.3% primarily due to extended turnarounds at the CITGO and Murphy Oil refineries.

The results of the survey have been compiled in a report that is now available.