

by James B. Cordiner, Jesse Coates, 1991

The sugar planters of Louisiana, ... seeing the increasing gravity of the situation . . . in the late [eighteen] eighties, called to Louisiana Dr. W. C. Stubbs and established. . . the Sugar Experiment Station at Kenner, Louisiana, which was subsequently moved to Audubon Park, on the outskirts of New Orleans. . . . But when the planters began to look for chemists and engineers, they were simply not to be obtained. . . . In 1890, therefore . . . it was decided to establish, in connection with Sugar Experiment Station, a school for the training of experts in sugar work, opened in 1891 as the Audubon Sugar School.... The school was successful from the outset and, in a couple of years, more students were applying for admission than could well be accommodated. In the meantime the Sugar Experiment Station was taken over by the State of Louisiana as part of the Louisiana State University. . . . In 1908 its numerical importance was such that it was reorganized as a college of the University.

From the first the writer [C. E. Coates] and his colleagues were given a free hand by President [Thomas D.] Boyd in formulating the course of study, and changes were made year by year as experience or circumstances dictated.... The purpose of the school when first organized was to offer to the citizens of Louisiana the opportunity to secure such training as would qualify them to enter most advantageously the sugar industry of the state.

The course as formulated in 1897, was four years in length. . . . It soon became clear, however, that a satisfactory foundation could not be given to high school graduates in four years, so, in 1899, the course was made five years in length. The first three years were spent on fundamentals<sup>2</sup> chemistry, physics, mathematics through calculus, economics, English, engineering sciences such as mechanics, and thermodynamics. These course0( P)-3(r)-6(e)4(sh, )]3.hThe the b1T

## **THE DEPARTMENT FROM 1897 TO 1908**

Since the primary concern of this article is chemical engineering education at Louisiana State University, attention will be focused first on the year 1897 when the Audubon Sugar School became an official part of LSU. It was operated as a private corporation (with funds subscribed by the Louisiana Planters' Association) with a course originally of two years' duration. Additional details of its history were published in an article by E. A. Fieger.<sup>[6]</sup> Excerpts from that article follow:

After a care/id consideration of the chemical developments which have occurred in Louisiana, it seemed appropriate to present the history of one of the first chemical industries of the state and to show how its introduction led to a series of developments which had far-reaching effects. This industry ... was born during a period of agricultural adversity. It developed and flourished, due to the application, diligence, and patience of a small group of men who probably unconsciously applied chemical principles to a crystallization process . . . and caused an awakening <sup>2</sup> and its salvation through the use of chemists and engineers. This is the story of the sugar cane industry.

If history is correct, the first sugar cane was introduced into Louisiana by the Jesuits in 1751, about thirty years after the founding of New Orleans.

Sugar engineering, as cited in the LSU Catalog for the year 1902, was one of eight regular courses of study leading to appropriate degrees. The course was designed to train experts in the sugar industry to fill good positions in the field. It included instruction in the agriculture, chemistry, and manufacture of sugar. The students had full courses in the lecture rooms and laboratories of LSU and then spent the grinding season of their junior and senior years in the field, the sugar house, and the laboratory of the Sugar Experiment Station (originally located at Audubon Park, New Orleans, but moved to Baton Rouge in 1897). The chemical engineering curriculum is first mentioned in the 1907 LSU Catalog.

## **THE DEPARTMENT FROM 1909 TO 1936**

The roster of students in 1910<sup>[2]</sup> includes several in the Audubon Sugar School and two sophomores in chemical engineering; that of 1912 lists possibly the first graduate student; and

addition to his many other achievements, Dean Coates was a charter member of the Louisiana-Mississippi chapter of the AIChE and helped to organize the Louisiana section of the ACS.

## **THE DEPARTMENT FROM 1937 TO 1956**

In 1937 the catalog shows chemical engineering as a separate department within the College of Engineering. Dr. Horton is listed as head, and Jesse Coates and Arthur Keller as assistant professors. Dr. Coates ran the department almost single handedly during the war years of 1942-45 since Dr. Horton was on leave working on a high-priority project and Dr. Keller was on leave for another assignment at LSU. Bernard Pressburg joined the faculty as Assistant Professor in 1941, but was on military leave from 1942 to 1945.

The catalogs for this period indicate that Horton, Coates, and Keller taught a tremendous number and variety of chemical engineering courses. In addition to the courses listed earlier, Horton conducted considerable research in the pulp and paper field.

## **THE DEPARTMENT FROM 1957 TO 1969**

The years 1957 to 1963 saw substantial increases in the complexity of course offerings and in the number of faculty. Dale Von Rosenberg joined the faculty in 1957; James B. Cordiner and Frank R. Groves in 1958; and Adrian E. Johnson in 1960. Paul W. Murrill came to LSU as a graduate student in 1960, received his PhD degree, and eventually became department head in 1967. In 1969 he became Vice-Chancellor, and shortly thereafter Chancellor, of the Baton Rouge campus, but left in 1980 to become Executive Vice President of Ethyl Corporation, and then Chairman and Chief Executive Officer with Gulf State Utilities Company.

Several individuals were permitted early retirement from Exxon Corporation to come to LSU. They included Alexis Voorhies, who came in 1964, and Roger Richardson, who joined in 1965. Edward McLaughlin, from Imperial College of London University, was a visiting professor at LSU for the 1967-68 academic year, returned to London for two years, and then joined the LSU faculty permanently.

## **THE DEPARTMENT FROM 1970 TO 1991**

In 1970 Joseph A. Polack was granted early retirement from Exxon Research and Development Laboratories to become a professor at LSU. He was a member of the American Chemical Society and the American Institute of Chemical Engineers. He was also a member of the Louisiana-Mississippi chapter of the AIChE and helped to organize the Louisiana section of the ACS.

Harrison