Uncle Sam's Locomotives: The USRA and the Nation's Railroads. *By Eugene L. Huddleston.* Bloomington: Indiana University Press, 2002. xii + 215 pp. Index, bibliography, photographs, tables. Cloth, $49.95. ISBN 0-254-34086-1.

Reviewed by Vagel C. Keller Jr.

In *Uncle Sam's Locomotives,* Eugene L. Huddleston has produced the first analytical study of the United States Railroad Administration's role in the development of American steam locomotives after World War I. The sudden mobilization of the United States for that war placed an enormous strain on the country's railroad system, which was ill-prepared for the surge in traffic. Saddled with debt from the panic of 1907 and faced with increasing labor costs, American railroads had made little investment in equipment during the years of prosperity after 1908. Locomotives and rail cars were obsolete, poorly maintained, and lacking in the numbers needed to handle wartime freight and passenger traffic volumes. When the USRA took control of the national railroad system on January 1, 1918, it saw the shortage of motive power as one of the most critical problems to be addressed. Huddleston shows that while the USRA was short lived, its impact on the development of American steam locomotive technology was far reaching.

The narrative traces the USRA's efforts to standardize steam-locomotive designs on a national scale in the face of resistance from railroad corporations, locomotive manufacturers, and professional journals. "If this book had a thesis," writes Huddleston, "it would be that while the standardization experiment had little if any effect on winning the war, it was highly successful from an engineering standpoint" (p. x). His yardstick for success is longevity, not only of the locomotives built during the USRA's twenty-seven-month tenure but also of the designs themselves, which American locomotive manufacturers continued to produce into the 1940s. Indeed, steam locomotives of USRA design were among the last to be retired when American railroads turned to the diesel engine in the 1950s. Moreover, according to Huddleston, the success of the USRA designs led to the development of "superpower" steam locomotives during the 1920s, twenty years earlier than would have otherwise been the case.

Uncle Sam's Locomotives falls between the genres of popular railroad history and interdisciplinary scholarship in business history and the history of technology. Scholars will note the absence of footnotes or endnotes and the considerable number of pages, amounting to nearly half the book, devoted to a photo gallery of USRA locomotives. But the narrative is rich in analytical detail and is well documented, with discursive citations from contemporary sources and recent scholarly works embedded in the text. Its coverage of the USRA's organization for

locomotive production and of the controversy surrounding standardization makes it an important adjunct to recent academic studies of the American locomotive-manufacturing industry. The index is well organized, while the bibliography is extensive and includes a valuable discussion of the author's approach to conducting research in contemporary trade journals.

I found Huddleston's discussion of the controversy over the USRA's standardization program to be the most interesting and valuable part of the book. Readers familiar with Albert J. Churella's *From Steam to Diesel: Management Customs and Organizational Capabilities in the 20th-Century American Locomotive Industry* (1998) will recognize the contemporary arguments against standardization cited in this book. However, Huddleston observes, executives who publicly opposed standardized steam-locomotive designs were themselves instrumental in the success of the USRA's program, as they constituted the committees that produced the designs. And even as the railroads and the steam-locomotive builders editorialized against standardization, they continued to order and build USRA designs (although with some custom components) well beyond the end of the USRA's jurisdiction in March 1920. If the words of the railroad industry's executives from the age of steam argue against Huddleston's thesis, their actions—presented here for the first time in an analytical context—validate it.

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