Benefits of Increased Use of Continuous Casting by the U.S. Steel Industry

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BENEFITS OF INCREASED USE OF CONTINUOUS CASTING BY THE U.S. STEEL INDUSTRY

A TECHNICAL MEMORANDUM

OCTOBER 1979

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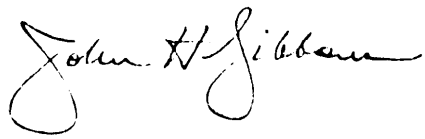
PREFACE

The Office of Technology Assessment is examining several sectors of U.S. industry in an effort to understand the factors contributing to a strong competitive position for U.S. industry in world markets. Our study of the "Competitiveness of the U.S. Steel Industry" will be the first of these assessments.

This Technical Memorandum on continuous casting in the U.S. steel industry was prepared prior to the issue of the full steel assessment (scheduled for January 1980) at the request of Sen. John Heinz, Rep. Joseph M. Gaydos, Chairman of the Congressional Steel Caucas, and Rep. Charles A. Vanik, Chairman of the Subcommittee on Trade of the Committee on Ways and Means.

The memorandum first describes continuous casting, contrasting it with the older ingot casting process. The memorandum then explains the advantages of the continuous casting process, contrasts the rate of adoption of this technology in the U.S. steel industry with that in foreign steel industries, and examines the levels of continuous casting that the United States might reach in 1990. The factors that have constrained the greater adoption of continuous casting in the United States are briefly discussed and the economic costs and benefits of converting existing capacity to this new process are analyzed.

This memorandum does not discuss the more advanced technologies for steelmaking that would be applicable only in the longer term. Nor do we analyze congressional policy options that could assist the U.S. steel industry to improve its technical and economic performance. These analyses will appear in the complete steel assessment.



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Additionally, three contractor reports prepared for the OTA assessment of the Impact of Technology on the Competitiveness of the U.S. Steel Industry were used as sources of information for this memorandum: These contractors were:

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