

## ALTERNATE SOURCES FOR HIGH ALLOY METALLURGY, AN ALTERNATIVE FOR OEM PARTS

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### ABSTRACT

One good business practice has been the frequent polling of the market place for replacement parts pricing and availability. Unfortunately, this has often proved more difficult to accomplish than to desire. Where, for example, can satisfactory cast iron and high alloy steel replacement parts be obtained, especially where Original Equipment Manufacturer's (OEM's) proprietary rights and claims are concerned? One of the plant manager's chief problems is with the apparent lack of alternatives. There was a time, in the early 1980s, when the Solid Waste District program in Montgomery County, Ohio, found itself in just such circumstances. This paper is intended to share the authors' first hand experiences with design and procurement of alternative replacement parts so that others may benefit.

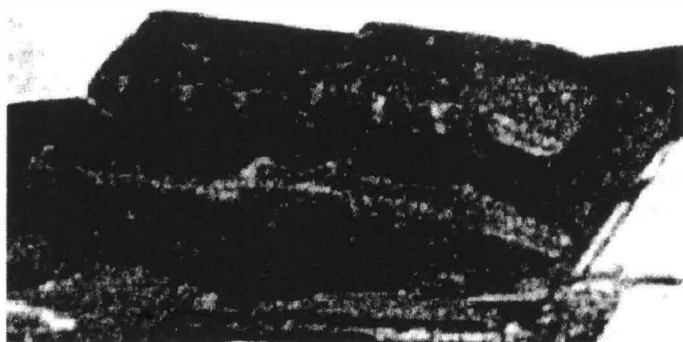
### INTRODUCTION

The Solid Waste District in Montgomery County, Ohio, was first created in 1956 under then new provisions of the State Law which allowed Counties to expend money and incur debt for planning and implementing solid waste management programs which required capital facilities. In the 1960s, the City of Dayton led several of its neighboring communities and the County itself through the arduous task of planning, designing, funding and implementing an incineration program to replace its old incineration plant. That program culminated in the start up of two new publicly owned and operated plants, one just north of the Dayton city limits, and one just to the south. Operations began in those two new plants in 1970. The surrounding County of Montgomery was to be in charge of operating these new Solid Waste District facilities.

After struggling through several years of typical new plant operating difficulties (with flow control and budget problems), the District found itself in 1982 with new leadership and a rather progressive management philosophy which valued the bottom line ("total cost"), operational efficiency, employee safety, and continuous improvement. This empowerment of the workforce resulted in a will to improve the components that made up the heart of the incinerator itself. These internal parts bore the brunt of the wear therein, and therefore dictated the efficiency of combustion and the frequency of required maintenance.

### PROBLEM

By 1982, the OEM combustion grates still utilized the same



**Figure 1 OEM cast iron grate box assembly showing one of two grate "bars" in place.**