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CHAPTER 5 ENGINEERING

510 INTRODUCTION

This chapter provides a discussion of general engineering aspects, an operation plan, a reclamation plan, design criteria, and performance standards related to the refuse pile. The activities associated with the construction and reclamation of the refuse pile will be designed, located, constructed, maintained, and reclaimed in accordance with the operation and reclamation plans.

511 General Requirements

This permit application includes descriptions of the proposed refuse pile area construction, maintenance, and reclamation operations together with the appropriate maps, plans, and cross sections. Potential environmental impacts as well as methods and calculations utilized to achieve compliance with the design criteria are also presented.

512 Certification

Where required by the regulations, cross sections and maps in this permit application have been prepared by or under the direction of, and certified by, qualified registered professional engineers or land surveyors. As appropriate, these persons were assisted by experts in the fields of hydrology, geology, biology, etc.

512.100 Cross Sections and Maps

The configuration of the refuse pile and cross sections through the pile are provided on RA Plates 5-1 and 5-2 of this submittal. *An as-built map of the refuse pile topography (Olympus Aerial Survey, May 2003) is included in Attachment 5-5.*

Canyon Fuel Company, LLC
Dugout Canyon Mine

Refuse Pile Amendment
September 2003

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**RA ATTACHMENT 5-5
AS-BUILT TOPOGRAPHY MAP**