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SHIELDALLOY METALLURGICAL CORPORATION

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W. FERGUS PORTER
PRESIDENT

April 10, 1990

Mr. Charles J. Haughney, Branch Chief
Fuels Cycle Safety Branch
Division of Industrial and Medical Safety
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Mr. Haughney:

Re: Newfield Source Material License SMB-743

Shieldalloy Metallurgical Corporation is preparing to proceed with the circumscription and shielding of the Source Material Storage Yard at the Newfield Plant. We plan to utilize slag from on-site smelting operations for this purpose and request that NRC provide concurrence on the proposed approach.

Shieldalloy identified a Source Material Storage Yard (SMSY) in the July 18, 1988, application submitted to NRC to renew the source material license SMB-743 for our Newfield facility (ENSR document No. 5990-002-410). The SMSY is designated as a Controlled Area within which materials generated in connection with the source material processes would be stored. The materials stored within the SMSY primarily consist of slag and baghouse dust from the ferrocolumbium and columbium nickel smelting operations. A copy of the site plan submitted with the application is attached to illustrate the approximate location of the SMSY.

We indicated in the license application that shielding between the SMSY and the boundary of the restricted area (i.e. the northern fence line) would be constructed if found to be warranted by radiological monitoring. The Oak Ridge Associated Universities' report from NRC entitled "Radiological Survey of the Shieldalloy Corporation Newfield, New Jersey", which Shieldalloy received from NRC, indicated exposure rates along

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the northern fence line of up to 175 uR/hr at 1 m above the surface. Although the occupancy at this fence line is low, Shieldalloy plans to introduce shielding on the north faces of the ferrocolumbium slag piles as an ALARA measure.

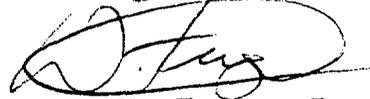
Shieldalloy plans to circumscribe and shield the SMSY by using slag from ferrovanadium production operations. The slag will be used as shielding material on the ferrocolumbium slag piles, and to form a physical delineation around the SMSY and thereby assist in control of source material.

Ferrovanadium slag is an inert, rock-like substance consisting primarily of calcium, magnesium and aluminum oxides. The slag does not contain source material. Data indicates that the slag is not hazardous, having passed the EP Toxicity test.

The ferrovanadium slag will be contained in an engineered system such as gabions. Gabions are rectangular cages made of woven steel wire mesh that can be filled with the crushed slag and then combined to form stable structures.

We are currently preparing to implement these measures at Newfield as soon as possible, and therefore request your early concurrence.

Sincerely,



W. Fergus Porter
President

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Enclosure

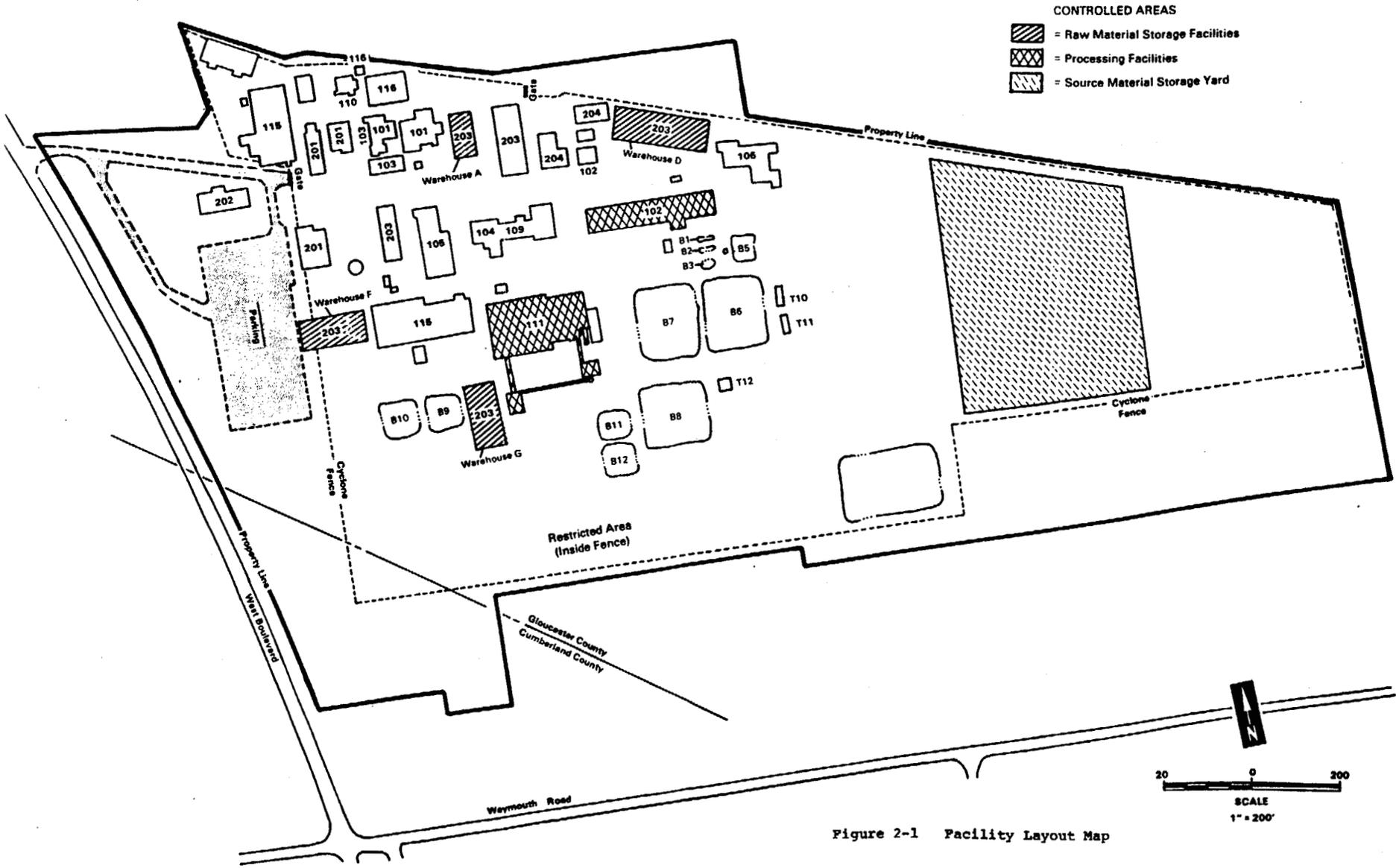


Figure 2-1 Facility Layout Map