



Department of Energy
200 Grand Avenue
Grand Junction, Colorado 81501

June 15, 2011

Ms. Kimberly Conway, Project Manager
FSME Division of Waste Management and Environmental Protection
U.S. Nuclear Regulatory Commission
Mail Stop T8F5
Washington, DC 20555-0001

Subject: Proposed Change to the Remedial Action Plan – Specification Revision Related to the Crescent Junction Disposal Cell, Moab Uranium Mill Tailings Remedial Action (UMTRA) Project

Ms. Conway:

The purpose of this letter is to request Nuclear Regulatory Commission (NRC) concurrence on a specification and design drawing change to the Moab UMTRA Project Remedial Action Plan. The U.S. Department of Energy (DOE) is proposing the following changes:

- 1) Drawing E-02-C-501 (proposed changes in the clouded area in Figure 1). The current approved drawing reflects a “calculated” value and a “used value” for the D50 of the rock size. The used values were established by taking the calculated value and in every case but one, rounding up to the nearest standard screen size. The proposed revised drawing below proposes to use the “calculated” as actual for the D50 12-, 6-, and 4-inch rock sizes.
- 2) During a conference call on May 4, 2011, between the NRC and DOE, we discussed the difficulty of sampling and testing riprap gradations. It was suggested that this project should research previous UMTRA projects to see what type of testing and specifications have been used in the past. DOE has reviewed and examined the sampling and testing methods used on previous UMTRA projects located in Green River, UT, and Grand Junction, CO. While reviewing previous UMTRA project specifications, we found that the target gradation bands on past projects are significantly larger than the bands that have been specified on the Moab UMTRA Project. In our letter dated September 15, 2010, we proposed a similar specification change to the aggregate utilized on the final cover (Area C) of the disposal cell, which NRC is currently reviewing. This request is in regard to the side slope riprap (Area B) and apron riprap (Area A) on the same disposal cell (See Figure 1).

FSME2

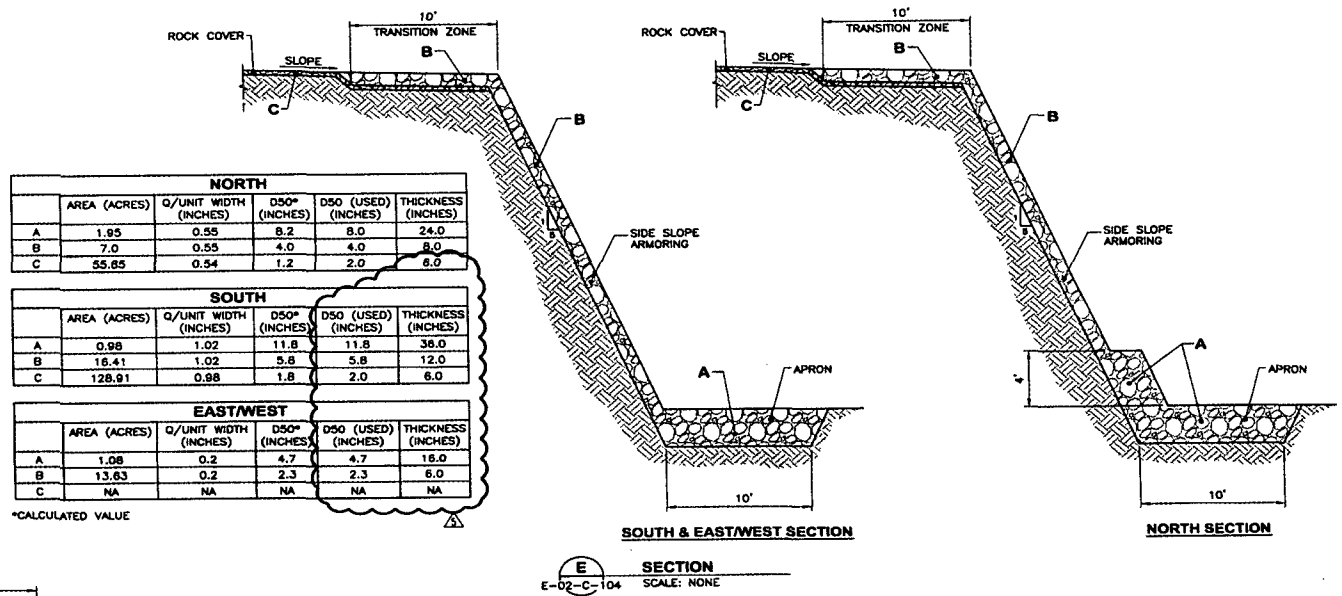


Figure 1. Detail from Drawing E-02-C-501-E showing location of riprap placement on cover edge

DOE is proposing to revise Specification 32-11-23 Aggregate and Rip Rap, Section 2.1.6.1 Bio Barrier and Cover Top, Table 3 as indicated in Figure 2 below.

As requested, we have included gradation target graphs (See Attachment A) which show the altered gradation targets in graph form for the riprap material to be used on this project. The intention of these graphs is to show that the targets which have been changed will enable the project to meet the calculated D50 for each specified rock size. The graphs show bands which represent the revised targets and also a line representing the gradation tests that have already been performed on the project to date.

As requested, we have included gradation target graphs (see Attachment A) which show the altered gradation targets in graph form for the riprap material to be used on this project. The intention of these graphs is to show that the targets which have been changed will enable the project to meet the calculated D50 for each specified rock size. The graphs show bands which represent the revised targets and also a line representing the gradation tests that have already been performed on the project to date.

	Cover E & W Edge Riprap	Cover N Edge Riprap	Cover S Edge Riprap	Cover E & W Apron Armor	N Apron Armor & Bedding	S Apron Armor & Bedding
Calculated Min. D50	D50 - 2.3	D50 - 4.0	D50 - 5.8	D50 - 4.7	D50 - 8.2	D50 - 11.8
Min. Thickness	6"	8"	12"	16"	24"	36"
Bedding Thickness					4"	4"
18 inch	-	-	-	-	-	TBD
16 inch	-	-	-	-	-	-
12 inch	-	-	-	-	90-100	-
10 inch	-	-	-	-	45-90	-
8 inch	-	-	90-100	90-100	35-50	-
7 inch	-	-	45-90	-	-	-
6 inch	90-100	90-100	35-55	35-90	0-30	-
5 inch	-	-	-	35-55	-	-
4 inch	35-90	35-50	10-40	-	-	-
3 inch	20-60	-	-	-	-	-
2 inch	8-45	10-36	-	-	-	-
1-1/2 inch	-	-	5-30	0-30	100	100
1 inch	0-30	5-30	-	-	60-100	60-100
1/2 inch	0-30	0-30	0-30	0-30	50-90	50-90
No. 4	0-15	0-15	0-15	0-15	20-70	20-70
No. 8	0-15	0-15	0-15	0-15	10-40	10-40
No. 16	0-15	0-15	0-15	0-15	0-30	0-30
No. 200	0-15	0-15	0-15	0-15	0-15	0-15

Figure 2. Proposed changes to target bands for riprap in Specification 32-11-23 Aggregate and Rip Rap (Note – A proposed gradation revision for the D50 11.8-inch rock is still being determined by DOE will be provided in a subsequent letter)

DOE requests your concurrence on the two items proposed above. These items were also discussed with Mr. Ted Johnson on a conference call held on May 23, 2011.

If you have any questions do not hesitate to contact me at 970-257-2115.

Sincerely,



Donald R. Metzler
Moab Federal Project Director

cc w/enclosures:

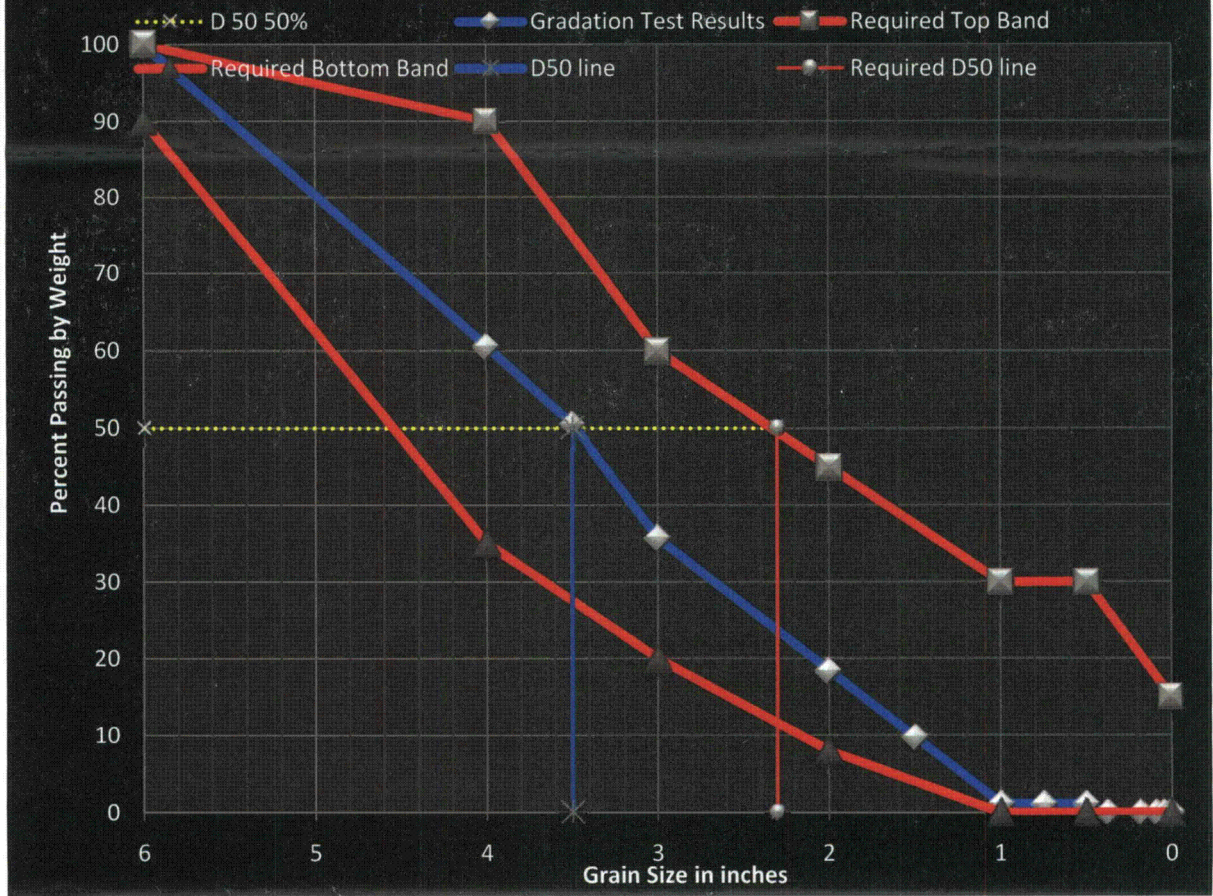
J. Berwick, DOE

C. Niemeyer, RAC

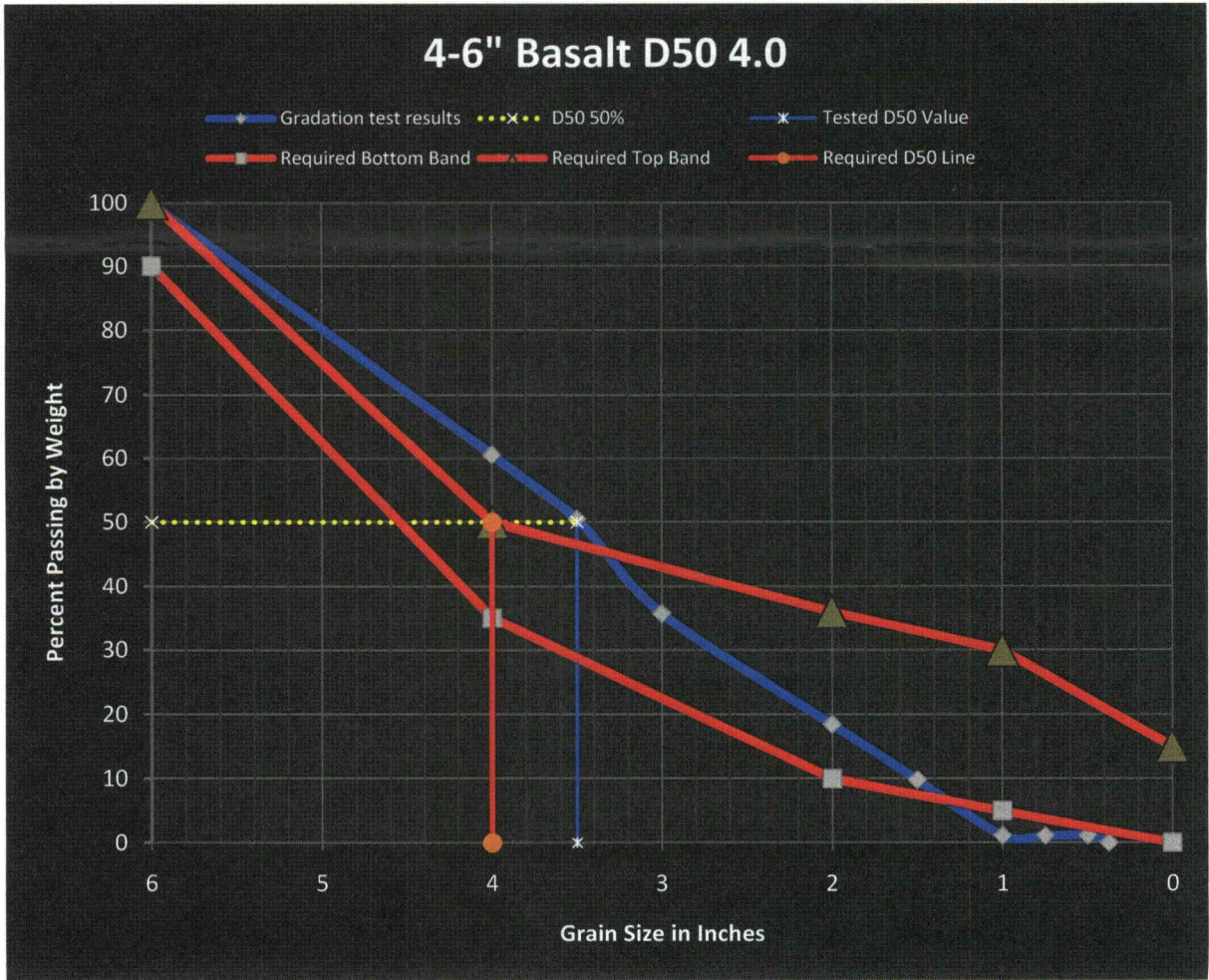
Project Record CRJ 2.12 (C. Smith)

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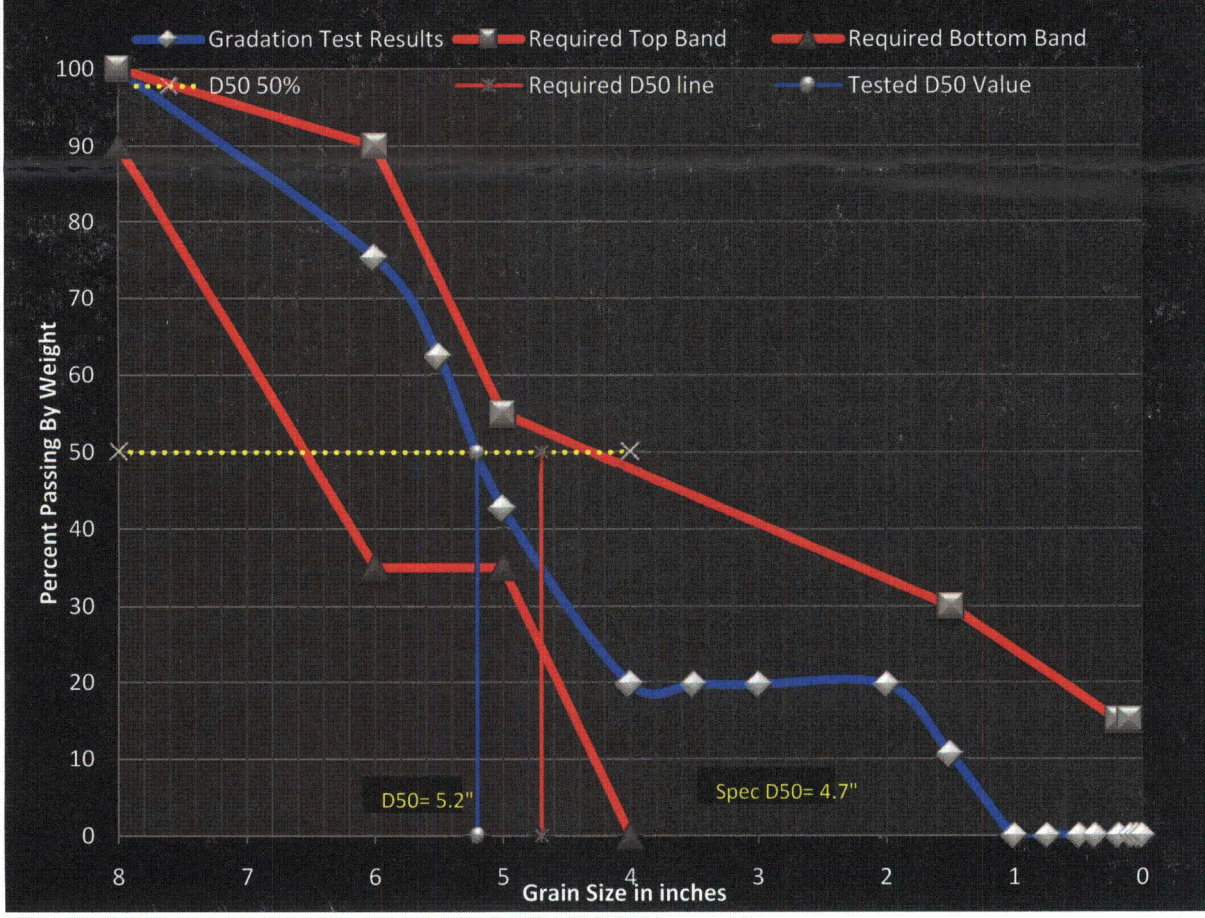
4-6" Basalt D50 2.3



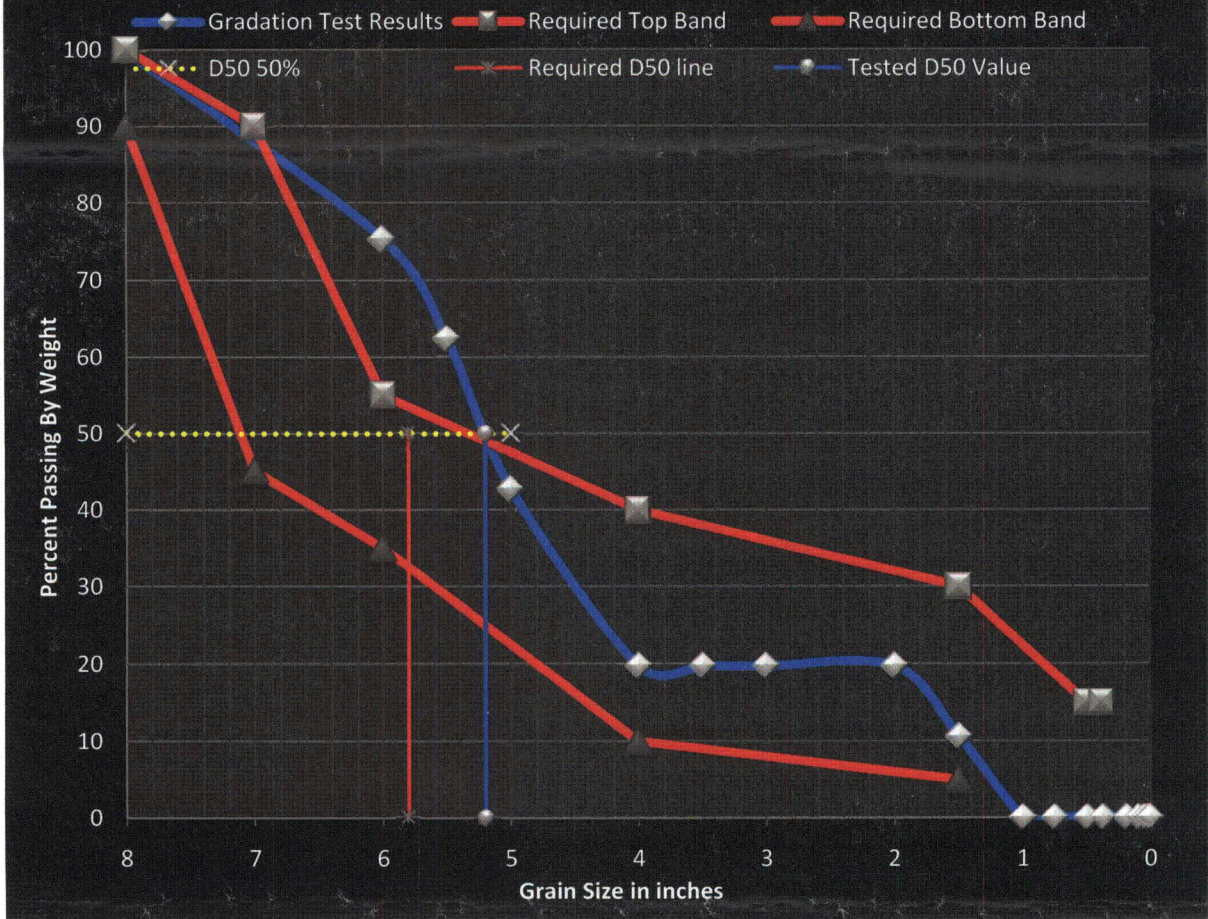
4-6" Basalt D50 4.0



6-8" Grey Basalt D50 4.7



6-8" Grey Basalt D50 5.8



8-10" Basalt D50 8.2

