



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

999 18TH STREET- SUITE 300

DENVER, CO 80202-2466

Phone 800-227-8917

<http://www.epa.gov/region08>

Ref: EPR-F

March 14, 2005

Mr. Joe Legare
Assistant Administrator for Environment and Stewardship
US Department of Energy-RFPO
10808 Highway 93, Unit A
Golden CO 80403-8200

RE: Present Landfill design approval

Dear Mr. Legare:

The Present Landfill design is approved provided the following required items are delivered in a timely manner, and not later than one week from the date of this approval letter.

- A collated copy of the 100% design properly signed and sealed by the engineer of record
- Design data and gradation curves from representative samples of borrow sources using an appropriate method agreed to by regulators
- Data and gradation curves for all source material already in place, based on appropriate methods agreed to by the regulators
- Update specifications and CQA assuring future construction replicates the native Rocky Flats Alluvium (22" layer and 2"+ grubbed/acceptance layer emulate the native quarry)
- Section 2.1 should clearly state that this landfill contains hazardous waste
- Biota barrier and vegetation sections (sections 3.8 and 3.9 respectively) from the August 2004 design submittal should be included in the final collated design analysis document
- Revised seed mix specification reflecting agreement reached in September 2004

In addition to the above requirements for design approval, EPA has an ongoing interest in the construction of the Present Landfill, and more broadly, in site revegetation. EPA considers revegetation to be a site-wide issue for disturbed areas of Rocky Flats, and critical to the performance of the landfill cover, as described in the approved IM/IRA. Demonstrating progress in revegetation will be a factor in EPA's NPL delisting determination at those portions of the site that are retained by DOE. EPA expects that site-wide revegetation performance criteria will be developed similar to the enclosed criteria. For these reasons, EPA recommends consideration of these success criteria during the establishment of vegetation at the Present Landfill. These criteria were developed in consultation with CDPHE and USFWS.

Adequate replication of the Rocky Flats Alluvium will greatly increase your chances of vegetative success. Factors to consider include an acceptance/top soil zone of sandy loam

ADMIN RECORD

BZ-A-000834

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(USDA textural triangle enclosed), a similar percentage of fine material (less than 2 mm) to the source area in the as-built 22" soil layer, minimal calcium carbonate in the soil, and not over-compacting the soil layers.

EPA would like to be on site for seeding operations. EPA recommends that native hay (included in your August 2004 specification) crimped into the cover soil will provide better mulch for the windy conditions at Rocky Flats than straw. An approved work plan and 2 full EPA work days advance notice should precede the field work.

DOE committed to perform source characterization once source areas were identified and prior to use in response to regulator comments in April 2004. Representative native quarry material has not been fully characterized to date. An approved work plan for this and at least 2 full EPA work days advance notice should precede the sampling. EPA should be present during source sampling to confirm representative samples are collected for baseline comparison.

It is our expectation that any design and specification changes will be submitted to EPA in a timely manner and EPA approval shall be obtained prior to their implementation. At the completion of construction, adequate documentation, as required by the Construction Quality Assurance/Quality Control Plan, must include a complete discussion of the process that lead to the in-situ gradation testing of the top 2-feet of material that is currently being performed. In addition, items not anticipated during the design, but which have already been performed or will be in the future, must also be discussed. This includes items such as the ripping/disking being planned to loosen over-compacted soils, and the placement of a 22-inch layer followed by a minimum 2-inch layer, instead of the previously designed two 12-inch layers.

For any questions regarding this approval or its terms, Pat Smith may be contacted at 303-312-6504.

Sincerely,



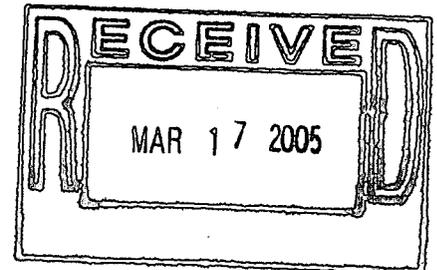
C. Mark Aguilar
Rocky Flats Project Manager

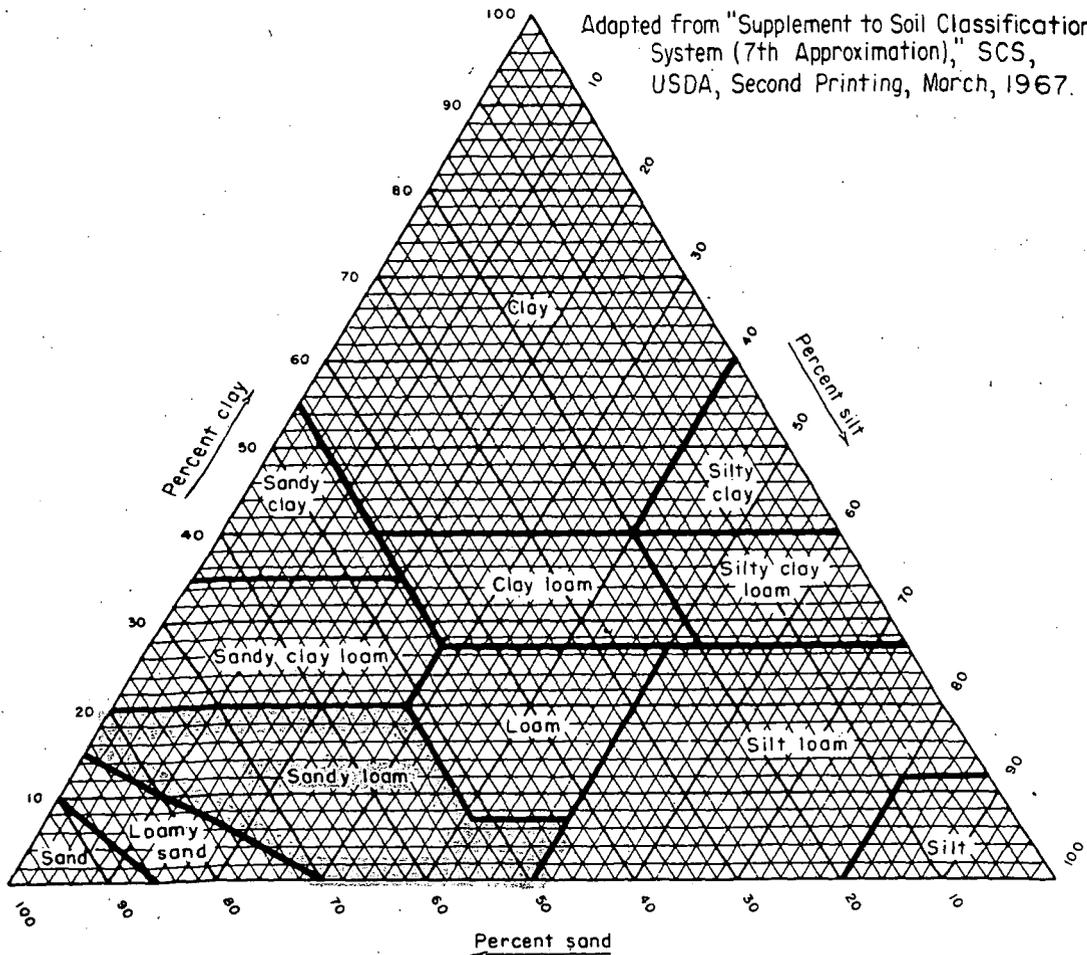
Enclosures

Vegetative conditions criteria
USDA Textural Triangle identifying sandy loam

cc: Max Dodson, EPA
Dave Shelton, K-H
Steve Gunderson, CDPHE
Mark Sattelberg, USF&W
Bob Birk, DOE
Bob Davis, K-H

Carl Spreng, CDPHE
Larry Bruskin, CDPHE
Pat Smith, EPA
Administrative Record, T130G





COMPARISON OF PARTICLE-SIZE SCALES

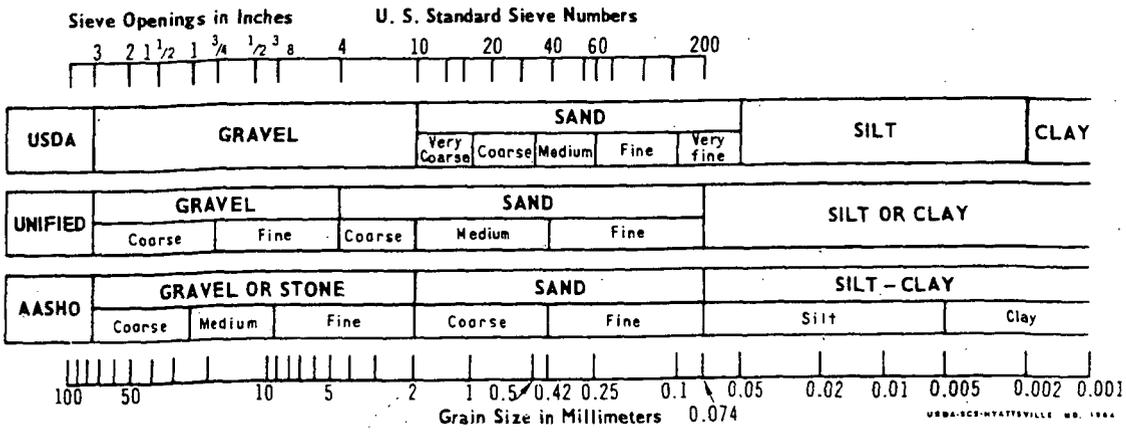


Figure 47. Soil triangle of the basic soil textural classes. (U.S. Soil Conservation Service.) 288-D-2782.

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.....Judgement.....

Year	FAIL ^a	Conditional Pass (to future final judgement)	HIGH Probability Reveg. Is OK
2	< 5% absolute cover (desirable species*) AND < one-half of total veg. cover of comparison area**	5 -10% absolute cover (desirable species*) AND one-half to three-fourths of total veg. cover of comparison area**	> 10% absolute cover (desirable species*) AND > three-fourths of total veg. cover of comparison area**
3	< 8% absolute cover (desirable species*) AND < one-half of total veg. cover of comparison area**	8 -15% absolute cover (desirable species*) AND one-half to seven-eighths of total veg. cover of comparison area**	> 15% absolute cover (desirable species*) AND > seven-eighths of total veg. cover of comparison area**
4	< 10% absolute cover (desirable species*) AND < one-half of total veg. cover of comparison area**	10 - 25% absolute cover (desirable species*) AND one-half to nine-tenths of total veg. cover of comparison area**	> 25% absolute cover (desirable species*) AND > nine-tenths of total veg. cover of comparison area**
ULTIMATE YEAR (5 to 10?)	< 10% absolute cover (desirable species*) AND < one-half of total veg. cover of comparison area**	10 - 25% absolute cover (desirable species*) AND one-half to nine-tenths of total veg. cover of comparison area**	

ALL YEARS	> 3% absolute cover by noxious weeds ^b	0.001 to 3% absolute cover by noxious weeds ^b ; effective eradication actions documented	NO presence of noxious weeds ^b
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<p>^a Failure requires remedial action - the nature of which will depend on the exact combination of circumstances, but could include interseeding or even clean cultivation followed by seeding and mulching.</p>	<p>^b Noxious weeds included in the State of Colorado Weed Act (2003) Lists A and B *Desirable species are the species included in the seed mix along with any native species that volunteer on the revegetation site.</p>	<p>** A comparison area agreed upon by USEPA, USFWS, and CDPHE in consultation with RFETS. This area may be a native area or a revegetated area at least five years old as of 2005.</p>
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