

APPENDIX P

ALTERNATIVE DAILY COVER USAGE REQUIREMENTS

ALTERNATIVE DAILY COVER (ADC)

USE PROCEDURES

The following conditions will govern all ADC use at the Marana Regional Landfill:

1. The Marana Regional Landfill will record daily, the types, tonnages and origin of ADC waste streams (Shredded Tires, Auto Shredder Fluff (ASF), Crushed Glass, Bottom Ash, shredded shingles/wood waste, C&D residual, and Petroleum Contaminated Soil (PCS). These records will be available for inspection and placed in the operating record for the site.
2. Special wastes (PCS and ASF) used as ADC shall comply with the acceptance requirements of Section 5.1 of the Solid Waste Facility Plan with respect to characterization, manifesting, record keeping, and handling.
3. Special Waste ADC will only be stockpiled within the developed area of the landfill footprint until deployed as ADC.
4. Should the application of any ADC become impracticable or contribute to conditions hazardous to public health, safety or the environment, the Marana Regional Landfill will terminate such use and revert to using compacted earthen material, or other approved ADC.
5. The Marana Regional Landfill will place earthen material over the entire working face at the end of any operating day preceding a period of time when the facility is closed for more than 24 hours.
6. All waste-derived materials (Shredded Tires, Auto Shredder Fluff, Crushed Glass, Bottom Ash, shredded shingles/wood waste, C&D residual, and PCS soil) used as ADC shall be subject to solid waste landfill disposal fees and or special waste disposal fees, as applicable.
7. Special Waste ADC will not be used if adverse weather conditions (such as heavy rains or winds) exist that would result in ADC washing or blowing off the working face.

TYPES OF ADC:

Petroleum Contaminated Soil

- Petroleum contaminated soil (PCS) will meet the requirements for Solid Waste or Special Waste Petroleum Contaminated Soil.

- PCS will be tested and analyzed to certify that it is not classified as a hazardous waste prior to use as an ADC. The landfill operator will require the PCS generator conduct sample collection and laboratory analytical procedures to demonstrate that the PCS is not hazardous waste as defined in 40 CFR 261. The sampling and testing will be performed prior to shipping the PCS to the Marana Regional Landfill for use as ADC.
- PCS will be placed on the waste as cover material using landfill equipment.
- PCS will only be stockpiled within the developed area of the landfill footprint until deployed as ADC.
- A minimum thickness of 6 inches of PCS shall be used for ADC.

Auto Shredder Fluff:

- Auto shredder fluff (ASF) will be tested and analyzed to certify that it is not classified as a hazardous waste prior to use as an ADC. The landfill operator will require the ASF generator conduct sample collection and laboratory analytical procedures to demonstrate that the ASF is not hazardous waste as defined in 40 CFR 261. The sampling and testing will be performed prior to shipping the ASF to the Marana Regional Landfill for use as ADC.
- ASF will only be stockpiled within the developed area of the landfill footprint until deployed as ADC.
- A minimum thickness of 6 inches of ASF shall be used for ADC.

Shredded Tires

- In accordance with ARS 44-1301.4, ADC shredded tires will be classified as “waste tire” meaning a tire that is no longer suitable for its original intended purpose because of damage, wear or defect.
- Shredded tires will consist of tires that have been stored in accordance with ARS 44-1304.01(A) and be used as ADC in accordance with ARS 44-1304 (D)(4) and AAC R18-13-1210.
- The tires will be shredded to a maximum size of 12 inches in the longest dimension.
- A minimum thickness of 6 inches of shredded tires shall be used for ADC.
- Pursuant to AAC R-18-13-1210, shredded tire ADC will not be used for more than two consecutive days at a time, with either 6-inches of soil or another approved ADC utilized on the third day.

Crushed Glass

- Crushed glass may be mixed with soil to create an ADC material that has physical properties similar to earthen daily cover material and contains approximately 50 percent or more by volume earthen soil material.
- A minimum thickness of 6 inches of crushed glass, crushed glass mixed with soil, or crushed glass mixed with PCS shall be used for ADC.

- Crushed glass, whether or not mixed with soil or PCS, may be used in the same manner as soil (i.e., there are no limitations to the number of consecutive days this ADC is used).
- If crushed glass is mixed with PCS, the regulations for PCS will apply.

Bottom Ash

- The product shall possess the characteristics required to achieve the performance objectives of 40 CFR 258.21.
- The use of this product shall be in accordance with the receiving facility's existing permit conditions.
- The product shall not be stored outside the footprint of the landfill. All precipitation which contacts the product shall be managed as leachate.
- The moisture content of the product shall be sufficient to prevent the product from drying and becoming airborne before and after placement as daily cover.

Shredded Shingles/Wood Waste

- The product shall possess the characteristics required to achieve the performance objectives of 40 CFR 258.21.
- Cannot be exposed for greater than 21 days.
- Grain size specification by volume: 95 percent less than 6 inches
- Compacted thickness of 6 inches and average compacted thickness of less than or equal to 12 inches.

C&D Residual

- The product shall possess the characteristics required to achieve the performance objectives of 40 CFR 258.21.
- Grain size specification by volume: 95 percent less than 6 inches minimum.
- Minimum compacted thickness of 6 inches and average compacted thickness of less than 18 inches.

Foam/Synthetic Spray-on Cover

- Recycled fibrous material will be mixed with water or leachate and a setting agent to produce a spray-on mortar slurry suitable for spraying and adhering to solid waste materials.
- Portland cement may be added for durability and dye may be added for coloring.
- A one-quarter inch thick coating will be sprayed over the landfill working faces.
- The synthetic daily cover will be applied using industrial spraying equipment such as a hydroseeder.

- The operator will be capable of operating heavy equipment and be familiar with the mechanics of this equipment.
- The operator will wear protective clothing at all times during application of the synthetic daily cover.

Tarps

- ADC Tarps utilized at the Marana Regional Landfill will adhere to the requirements of 40 CFR 258.21.
- ADC Tarps will not be used during periods of high winds or rain when deployment would be difficult.
- ADC Tarps will be deployed either with on site equipment or manually with on site laborers. The tarps will be secured with soil placed on the edges of the tarps and/or sand bags to adequately maintain the integrity of the ADC.
- ADC Tarps will be a reinforced polyethylene sheeting product with the following nominal properties:
 - 12 mil thickness
 - 6 ounces per square yard (ASTM D-3775)
 - 190 pounds of grab tensile strength (ASTM D-1682-64)
 - 70 pounds of tear strength (ASTM D-2261-71)
 - 380 pounds of Mullen Burst strength (ASTM D-751-73)
 - 0.328 grams/square meter of Water Vapor Transmission (ASTM G-22)
 - UV inhibitor to maintain 90% of strength after 2000 hours exposure (ASTM G-53)
- Tarps from various manufacturers may be used as ADC provided they meet the minimum requirements listed in Item 4 above.
- Pursuant to Arizona Administrative Code R-18-13-1210, ADC Tarps will not be used for more than two consecutive days at a time, with either 6-inches of soil or another approved ADC utilized on the third day.
- ADC Tarps will be repaired or replaced if they become damaged and are ineffective for use as ADC.