APPENDIX C
SAMPLE REPORTABLE QUANTITY CALCULATIONS

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Anhydrous Ammonia - 99.5%

Specific gravity (SG) = 0.62
Reportable Quantity (RQ) = 100 lbs
RQ of solution = RQ of Ammonia ÷ (SG X density of H2O X Percent purity)
RQ of solution = 100 lbs ÷ (0.62 X 8.34 lb/gal X 0.995) ≈ 19 gal

Uranium Ore

Arsenic content (max) = 112 mg/kg
Arsenic RQ = 1 lb
RQ of ore (arsenic) = RQ of arsenic ÷ (arsenic content ÷ 1000000 mg/kg) ÷ 2000 lb/ton
RQ of ore (arsenic) = 1 lb ÷ (112 mg/kg ÷ 1000000 mg/kg) ÷ 2000 lb/ton ≈ 4.5 ton
Calculate lead and selenium similarly

Uranium content (max) = 1160 mg/kg
Uranium RQ = 0.1 Ci
RQ of ore (uranium) = RQ of uranium ÷ (uranium content X Specific Activity of Uranium) X 1012 pCi/Ci ÷ 454 g/lb ÷ 2000 lb/ton
RQ of ore (uranium) = 0.1 Ci ÷ (1160 mg/kg X 0.677 pCi/mg) X 10^{12} pCi/Ci ÷ 454 g/lb ÷ 2000 lb/ton ≈ 140 tons

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Radium-226 content (max) = 335 pCi/g
Radium-226 RQ = 0.1 Ci
RQ of ore (radium-226) = RQ of radium-226 ÷ (radium content) X 1012 pCi/Ci ÷ 454 g/lb ÷ 2000 lb/ton
RQ of ore (radium-226) = 0.1 Ci ÷ (335 pCi/g) X 10^{12} pCi/Ci ÷ 454 g/lb ÷ 2000 lb/ton ≈ 329 tons

Tailings Solution

SG = 1.07
Arsenic content (max) = 146 mg/L
Arsenic RQ = 1 lb
RQ of tailings solution (arsenic) = RQ of arsenic ÷ (arsenic content X density of water ÷ SG ÷ 1000000 mg/kg) ÷ (density of water X SG)
RQ of tailings solution (arsenic) = 1 lb ÷ (146 mg/L X 1 L/kg ÷ 1.07 ÷ 1000000 mg/kg) ÷ (8.34 lb/gal X 1.07) ≈ 820 gallons
Calculate lead and selenium similarly

Uranium content (max) = 154 mg/L
Uranium RQ = 0.1 Ci
RQ of tailings solution (uranium) = RQ of uranium ÷ (uranium content X Specific Activity of Uranium) X 10^{12} pCi/Ci ÷ 3.8 L/gal
RQ of tailings solution (uranium) = 0.1 Ci ÷ (154 mg/L X 677 pCi/mg) X 10^{12} pCi/Ci ÷ 3.8 L/gal ≈ 252,000 gallons

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Thorium-230 content (max) = 27,500 pCi/L
Thorium-230 RQ = 0.01 Ci
RQ of tailings solution (Thorium-230) = RQ of Thorium-230 ÷ Thorium-230 content X 10^{12} pCi/Ci ÷ 3.8 L/gal
RQ of tailings solution (Thorium-230) = 0.01 Ci ÷ 27,500 pCi/L X 10^{12} pCi/Ci ÷ 3.8 L/gal ≈ 96,000 gallons

Uranium SX Loaded Organic

Uranium content (max) = 1.77 g/L
Uranium RQ = 0.1 Ci
RQ of loaded organic (uranium) = RQ of uranium ÷ (uranium content X Specific Activity of Uranium) X 10^{12} pCi/Ci ÷ 3.8 L/gal
RQ of loaded organic (uranium) = 0.1 Ci ÷ (1.77 g/L X 677 pCi/mg X 1000 mg/g) X 10^{12} pCi/Ci ÷ 3.8 L/gal ≈ 22,000 gallons

APPENDIX D
HISTORY OF SPILLS

APPENDIX D
HISTORY OF SPILLS AT THE PIÑON RIDGE MILL

Spilled Material	Date/Time	Cause of Spill	Remedial Actions

APPENDIX E
SPILL NOTIFICATION FORM

SPILL NOTIFICATION FORM

INITIAL INFORMATION:

Date:	Time Reported ( ) AM ( ) PM	Time Occurred ( ) AM ( ) PM
Individual Reporting: (Your Name)		
Phone #	Company Name:	
Location of Spill:	Address:	
Product Spilled	Estimated Amount	County, City, State, Zip
Source & Cause of Incident:		
Person Reported To:	Weather/Stream Conditions:	
Severity of Spill:	Meeting Federal Obligations to Report?	

CURRENT CONDITIONS

(Include Containment and/or Clean-up Efforts)

NOTIFICATIONS

Persons and/or Agencies Notified	Phone Number	Date and Time Notified	Written Follow-up Report Required (yes/no)