



Class 2 Permit Modification Request

What is Being Requested

Revise some of the Volatile Organic Compound (VOC) Concentrations of Concern in Table IV.F.2.c



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What is Not Changing

- Risk assessment methodology
- VOC source term
- VOC pathways
- VOC receptors
- Cumulative carcinogenic and non-carcinogenic risk
- Miscellaneous unit limits



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NMED Environmental Performance Standards and Risk Apportionment

- The limit for suspected human carcinogens is one excess cancer death in 100,000 (1.0 E-05)
- The limit for non-carcinogens is a Hazard Index of 1 or less
- Actual data show that most risk is from carbon tetrachloride



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Continued...

- Under the current circumstances, at the point where carbon tetrachloride reaches the concentration of concern in the Permit:
 - Room closure will be necessary
 - Risk will be at 1.2 E-06 not 1.0 E-05



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Changes

- Carbon tetrachloride concentration would be raised from 165 to 630 ppbv
- Chloroform would be decreased from 180 to 120 ppbv
- Methylene chloride would be decreased from 1930 to 1040 ppbv
- 1,1,2,2 Tetrachloroethane would be decreased from 50 to 14 ppbv



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Why is this Change Necessary

- To prevent disruption of ongoing waste management activities:
 - The carbon tetrachloride concentration is approaching the 12 month running annual average for its concentration of concern (165 bbpv)
 - When this occurs the Permittees may have to close an active room and possibly an active panel.
 - By using actual VOC data obtained from monitoring the risk can be reapportioned and avoid unnecessary closure of rooms/panels while maintaining the current environmental performance standards.



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What has the Running Annual Average Been in the Past?

- Non-zero values started in 2005
- Carbon tetrachloride has always been the most prominent VOC
- 1,1,1 Trichloroethane is the second most prominent VOC



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What are the Maximum Values Detected?

- Maximum values associated with Type IV waste
 - Emplacement began in Panel 2
 - Most waste is in Panel 5



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How Does this Reapportionment Apply to Future Waste Streams?

- 2008 TRU Waste Inventory Database contains 16 waste streams listed as “Solidified Organics” (ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2009 DOE/TRU-09-3425 12/31/2008)
 - 6 were shipped by Rocky Flats and are complete
 - 6 are less than 100 drums each
 - 4 remaining waste streams are shown on next slide



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How Does this Reapportionment Apply to Future Waste Streams?

Waste Stream	WASTE STREAM PROFILE FORM DATA		
	CONTAINERS IN WASTE STREAM	SHIPPED	REMAINING
ID-RF-S3114	8,169	1,633	6,536
ID-RF-S3150-A	858	667	191
ID-SDA-Sludge	25,519	9,263*	16,256
IN-BN432	About 320 drums—waste stream not certified		
ID-SDA-Soil	8,585	1,182	7,403

Waste Streams identified from the ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2009 DOE/TRU-09-3425 12/31/2008
Waste Stream information from approved Waste Stream Profile Forms
Shipped container numbers from the WIPP Waste Data System 3/18/2010
*1,407 of this total are inorganic sludge



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How Does this Reapportionment Apply to Future Waste Streams?

- We have emplaced about 13,000 containers of waste with high carbon tetrachloride concentrations
- We can expect up to twice this number in the future, depending on the mix of organic and inorganic waste from the ID-SDA-SLUDGE waste stream and the organic content of the ID-SDA-SOIL waste stream
- Reapportioned risk values are anticipated to accommodate these future waste shipments



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Questions



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