

Coal Combustion Residuals

Presentation for the March 10, 2016
Meeting of the
Waste Management and Radiation
Control Board



Utah Division Waste Management and Radiation Control

What are Coal Combustion Residuals (CCR)

- ❖ April 17, 2015 EPA published rules for the Disposal of Coal Combustion Residuals generated from the combustion of coal at electric utilities.
- ❖ Effective Date of the Federal Rule was October 17, 2015.



What are Coal Combustion Residuals (CCR)

- ❖ CCR includes fly ash, bottom ash, boiler slag, and flue gas desulfurization materials.
- ❖ National estimates for CCR are @ 110 million tons.
- ❖ Utah estimates for CCR are @ 2 million tons.



CCR and R315

- ❖ R315-310-1 requires all CCR landfills and surface impoundments have a CCR Permit.
- ❖ R315-310-12 All CCR landfills and surface impoundments are required to address the requirements of R315-319
- ❖ R315-319 Coal Combustion Residuals Requirements.



What Units are Covered

- ❖ New and Existing Landfills and Surface Impoundments that dispose or manage CCR.
- ❖ CCR does not apply to:
 - Facilities that cease receiving CCR prior to effective date,
 - Facilities that ceased producing electricity prior to the effective date, or
 - Are not part of an electric utility or independent power producer.



Minimum Standards

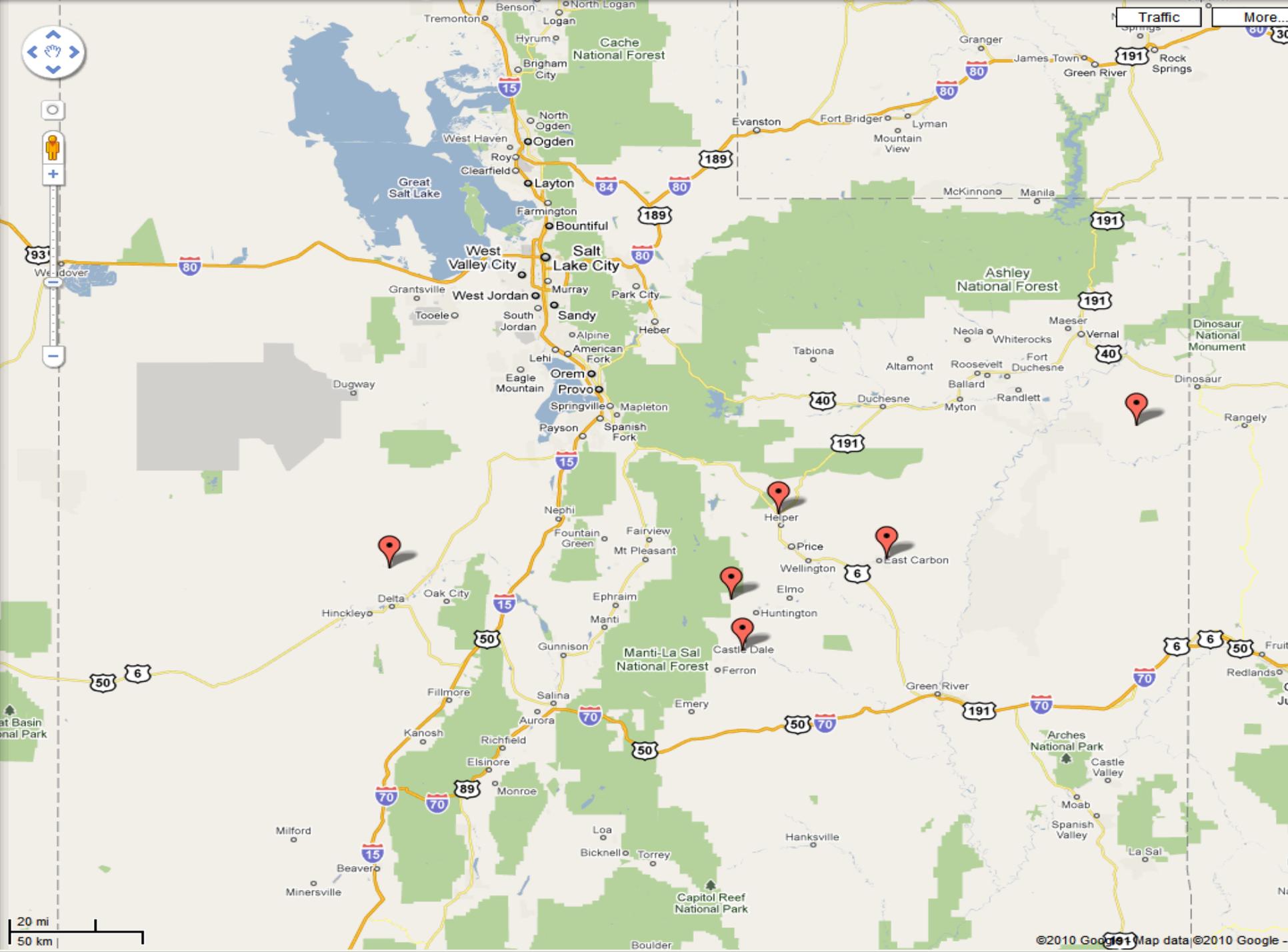
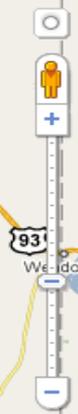
- ❖ Location Restrictions
- ❖ Liner Design Criteria
- ❖ Structural Integrity Requirements
- ❖ Operating Criteria
- ❖ Groundwater Monitoring
- ❖ Closure and Post-Closure Requirements
- ❖ Record Keeping and Notification Requirements
- ❖ Severability



Utah Coal Fired Power Plants

- ❖ Huntington
- ❖ Hunter
- ❖ Intermountain Power Project
- ❖ Sunnyside Cogeneration
- ❖ Bonanza is located on tribal lands and not regulated by DEQ.
- ❖ Carbon Canyon plant closed prior to effective date.





CCR Generation

Facility	Generated			Beneficially Used		
	Fly Ash	Bottom Ash	FGD	Fly Ash	Bottom Ash	FGD
IPP	530,000	130,000	275,100	200,000	0	0
Hunter	410,600	93,000	82,600	32,800	0	0
Huntington	205,000	51,500	64,400	0	0	0
Bonanza	173,300	74,200	81,400	0	4,000	0
Sunnyside	252,000 All ash combined					



Beneficial Use

- ❖ Beneficial reuse is not regulated based on EPA's 2000 regulatory determination.
- ❖ Some Beneficial reuses: Concrete, Structural Fill, Wallboard, Raw Feed for Cement, Waste Stabilization, Blasting Grit/Roofing Granules.



QUESTIONS?



Utah Division Waste Management and Radiation Control