



Hanford Site Waste Disposal Capability

Ty Blackford, Vice President
Waste and Fuels Management Project
CH2M HILL Plateau Remediation Company

March 2009



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

HNF-40420
CHPRC0902-14

Hanford Site Waste Disposal Capability

- Mixed waste disposal trenches
 - Low-level waste (LLW) and mixed low-level waste (MLLW) disposal
 - Primarily packaged waste forms
 - Limited to on-site wastes
 - Lined: RCRA subtitle C
- Environmental Remediation Disposal Facility (ERDF)
 - LLW and MLLW disposal
 - CERCLA
 - Primarily debris waste from D&D
 - Large facility limited to on-site wastes



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure



CH2MHILL
Plateau Remediation Company

Hanford Site Waste Disposal Capability

- Integrated Disposal Facility (IDF)
 - Constructed 2004-2005
 - First expansion ~165,000 m³
 - Double liner: RCRA subtitle C
 - LLW/MLLW cell separation
 - Permitted for immobilized low-activity waste (ILAW) and Demonstrated Bulk Vitrification System (DBVS)
- Status of IDF
 - Care and Custody
 - Modified permit
 - Reduced surveillances
 - Leachate collection management



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure



CH2MHILL
Plateau Remediation Company

Hanford Site Waste Disposal Capability

- 31/34 capacity until 2017: ~20,000 m³
 - Assumes on-site wastes only
- IDF total capacity of ~1 million m³
 - Planned to support off-site wastes
 - Includes ILAW from Waste Treatment Plant operations
 - Includes wastes not acceptable at ERDF
 - Meets estimated site and complex needs
 - Estimated 30-year lifespan
- Start of IDF operations Environmental Impact Statement dependent
 - Planned operations starting 2013/14



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure



CH2MHILL
Plateau Remediation Company

Hanford Site Waste Disposal Capability

- IDF start up follows crucial steps
 - Performance assessment finalization
 - Permit modification to allow for mixed waste
 - Forms beyond ILAW and DBVS wastes
 - Operational readiness
- 31/34 have capacity for off-site until IDF is on line
 - Just reduces life capacity by couple years



Hanford Site Waste Disposal Capability

- Hanford waste capacity and capability unique
 - Large capacity
 - Co-located waste storage, treatment, and disposal
 - Flexible capability for most waste forms
 - Disposal of LLW/MLLW/remote handled (RH)
 - Processing capability on site and local proximity for all waste forms
 - Control of transport routes easier

