

Hanford Cleanup: Challenges and Innovations

2015 Waste Management Conference

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Cleanup Challenges

~65 square miles of
contaminated groundwater

~43 linear miles of unlined
solid waste landfills

2,400 waste
management
units/areas of
concern



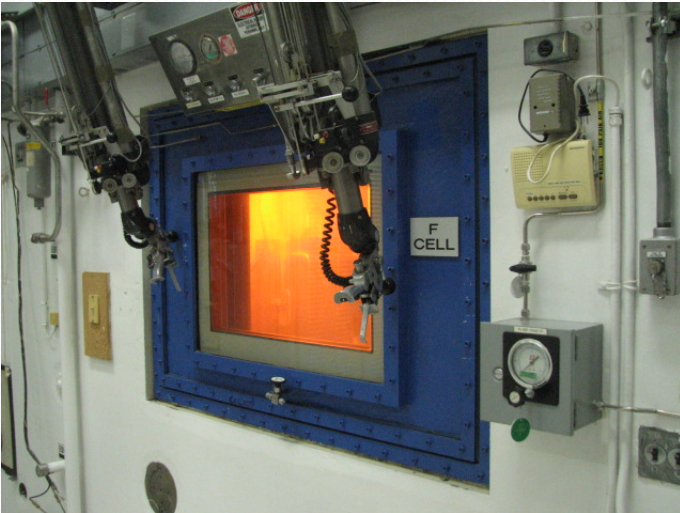
56 million
gallons of waste
in 177
underground
tanks

Contaminated soil and 1000
buildings



Challenges

Growing Compliance Bow Wave Entropy at Work

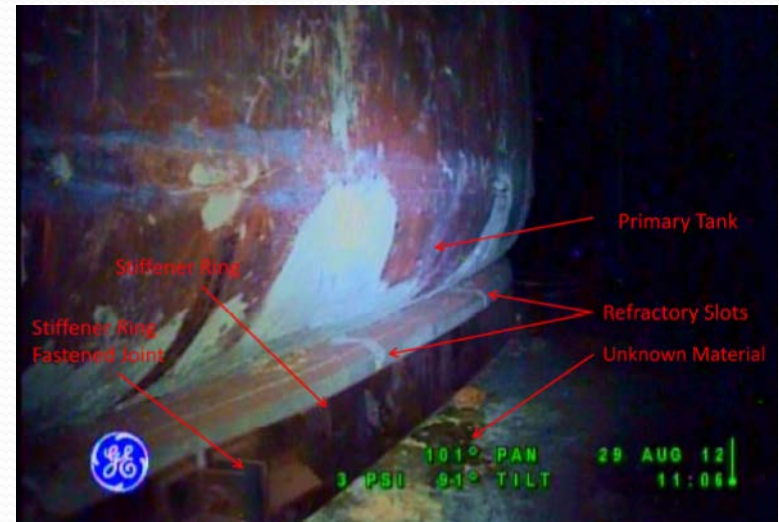


- Failing Infrastructure
 - Waste Encapsulation Storage Facility (WESF)
 - K Basins
 - 67 Leaking Single Shell Tank (SST)
 - 1 Leaking Double Shell Tank (DST)
- RCRA Treatment Storage and Disposal Facilities Compliance
 - Many facilities are failing to meet basic compliance requirements
 - Compliance budget is not equal to min safe budget

Challenges

Growing Compliance Bow Wave Entropy at Work

- Tri-Party Agreement/Consent Decree Milestones and Commitments
 - Tank Waste Retrievals
 - Waste Treatment Plant
 - ER work mothballed ~10 years
 - 8,000 retrieved, 12,000 to be retrieved containers
- 60 year mission even with compliant budget



Innovations

Approaches To Combat Entropy *How Do You Counter Act Entropy*



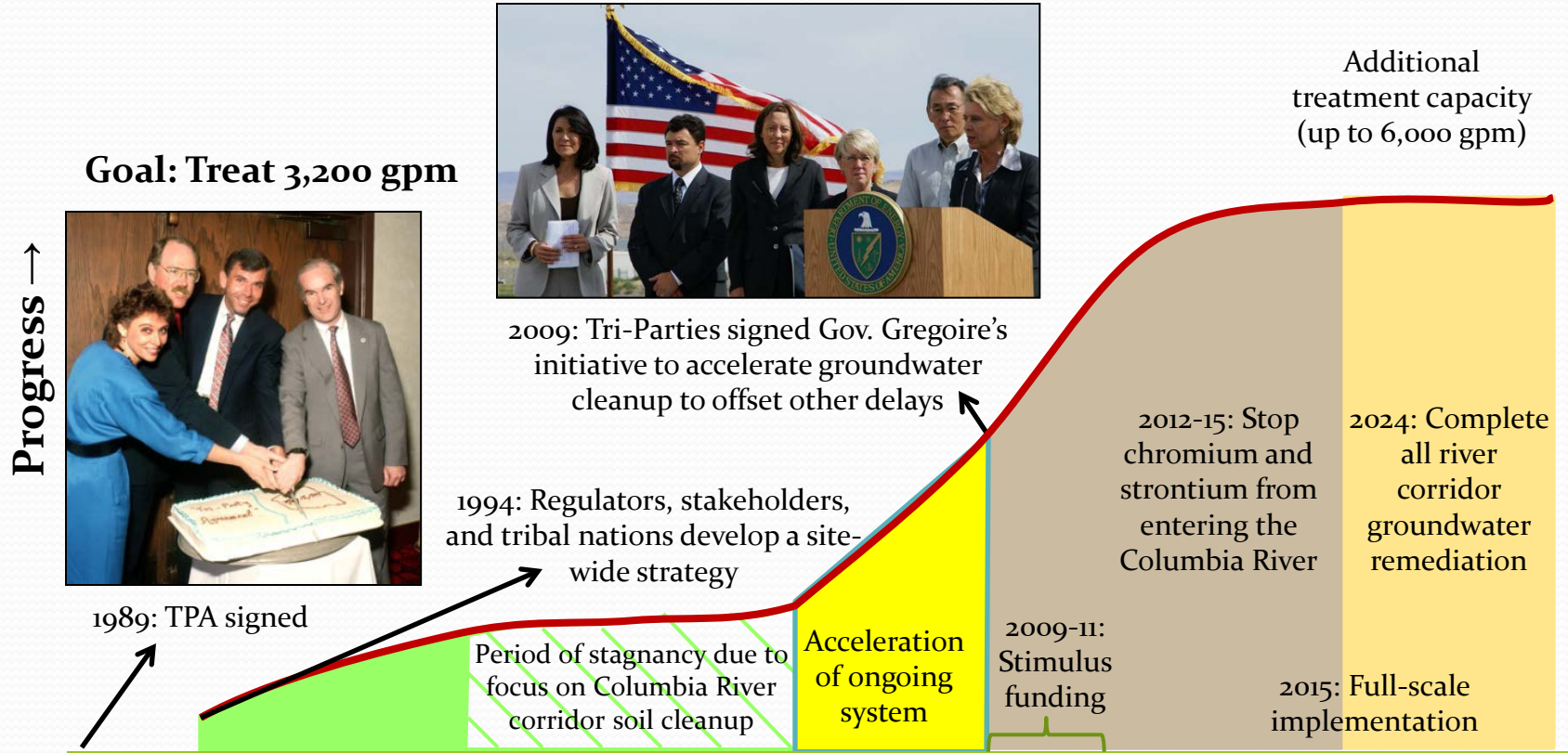
- Graded approach to non-compliance (next slide)
- Permit Compliance
 - Inspections vs. Interim Status Standards
 - Omnibus authority to permit “unfit for use” facilities
 - Use “CERCLA” schedules where it makes sense
 - Phased permitting for major capital facility and aggressive schedule
 - Workshops for permitting
- These commitments serve USDOE by making it compliant w/ FFCAct

Graded Approach to Non-Compliance

- Informal: Pro-active local anticipation and fixes of potential non-compliance
- Unit-level violations identified during inspections
 - Notification, voluntary return to compliance
- Long-term non-compliance at major facilities
 - Tri-Party Agreement milestones to return to Compliance
- Missed TPA milestones
 - Changes to milestones (>450 times)
 - Administrative Orders (e.g., leaking DST AY-102)
 - Tank Waste Consent Decree
 - Enforceable by court when not complied with

Groundwater Remediation

Progress made over past 20+ years has been Tri-Party team effort



Tri-Party Agreement



- Hanford Federal Facility Agreement and Consent Order (May 15, 1989)
- Rules: How DOE, EPA, and Ecology coordinate their regulations and work together to clean up Hanford
- Schedules: to get Hanford into compliance with environmental laws – including permitting!

Consent Decree Amendment

Ecology Requires

- A new schedule for completing construction and starting operation of WTP
- DOE to take actions to account for WTP delays, including:
 - Continue retrieving waste from single-shell tanks while the WTP is delayed.
 - Construct additional tank storage capacity to allow these retrievals to move forward even without a fully operating WTP.
- Terms to ensure greater accountability and enforceability in the Consent Decree

Questions?

www.ecy.wa.gov/programs/nwp

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