

Pacific EcoSolutions

a constant evolution

Waste Management '07

Tucson, Arizona

Presented By:

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Pacific EcoSolutions

*2025 Battelle Boulevard, Richland,
Washington 99354*

Pacific EcoSolutions (PEcoS)

- Located in Richland, Washington
- Born in the Mid-1980's as ATG, Inc.
- Purchased by Nuvotec, Inc. in 2003
- Part of PermaFix in Spring of 2007?

Services

- Mixed Waste Thermal/non-Thermal
- Low Level Waste Thermal/non-Thermal

PEcoS Facility



Fully Licensed and Permitted

- **Two Radioactive Materials Licenses (WA Department of Health)**
 - Low Level Waste
 - Mixed Waste
- **RCRA Part B Permit for Mixed Waste (WA Department of Ecology and EPA)**
 - Can't take explosives, listed dioxins
- **Air Permits**
 - High limits for H3, C14

Low Level Waste Highlights



- **Sorting and Segregating including sort for VCD in Tennessee**
- **Material Sizing**
- **Supercompaction**
- **Thermal Treatment**

PEcoS Thermal Treatment

- **Bulk Processing Unit (BPU)**
 - Able to thermally treat waste in specific containers thus keeping generator's waste separate from others if wanted
 - Approved for DOE Waste
 - Also used for Facilities with no disposal options
 - Foreign
 - Out-of-Compact
 - Class B and C

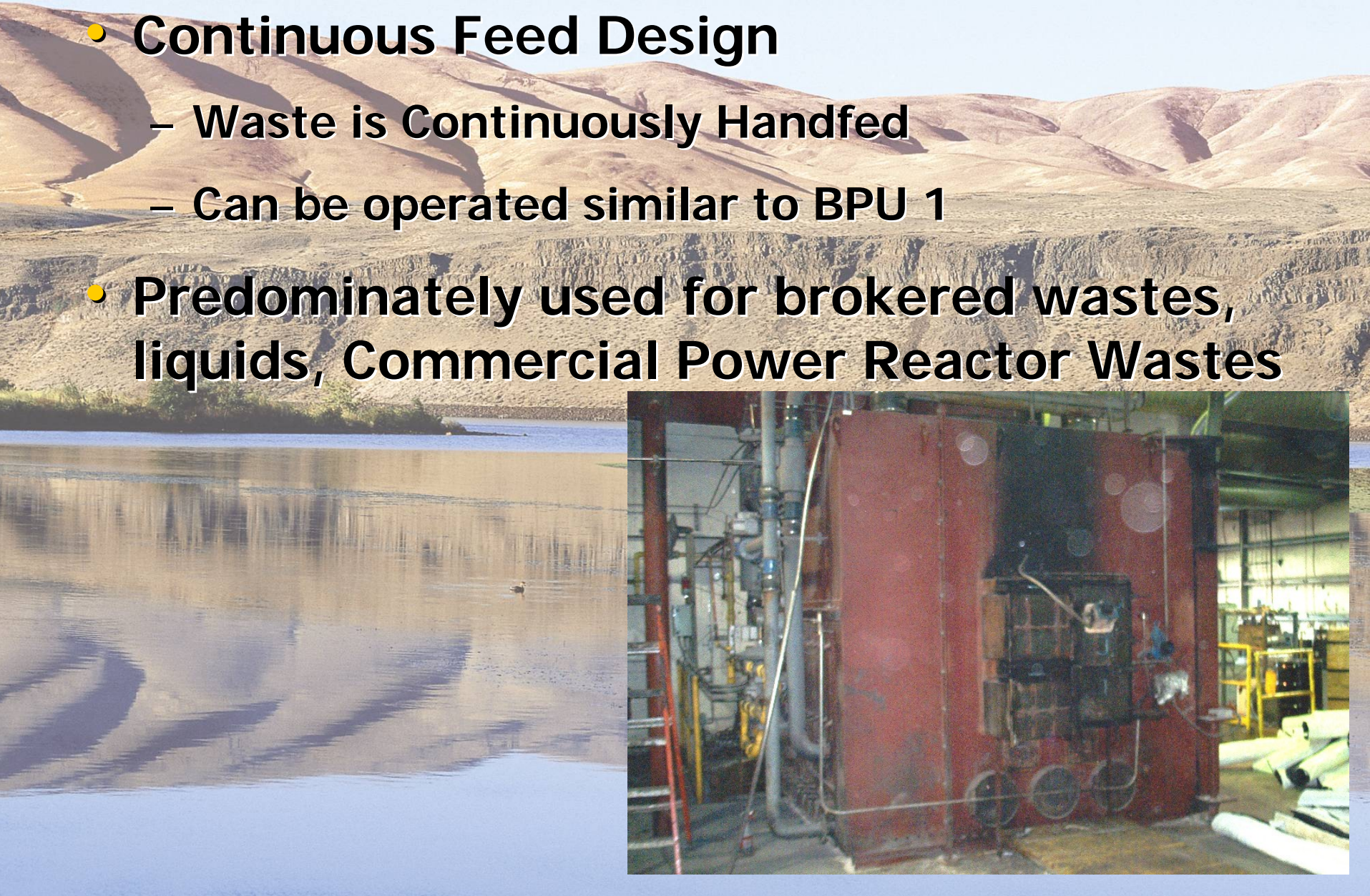
BPU 1 Description

- Operated @ ~1900°F
- Large Refractory-Type Oven
- Off-Gas Chimney
- Main Burn Unit is 6' x 6' x 6'
- Batch fed in Burn Bins
- Liquid Waste fed through atomizing nozzle into the oven
 - Ensures complete destruction of chelates, liquids, and biological hazards



BPU 2 Description

- **Continuous Feed Design**
 - Waste is Continuously Handfed
 - Can be operated similar to BPU 1
- **Predominately used for brokered wastes, liquids, Commercial Power Reactor Wastes**



Acceptable Waste Streams for Thermal Treatment

- **Dry Active Waste**
 - Cloth, Rubber, Paper, Air Filters
- **Oils and Lubricants**
 - Including EHC



Acceptable Waste Streams for Thermal Treatment

- Aqueous Liquids
- Chelating Agents
- Sources
- Biological and Biohazard Wastes



Other Biologicals too!



Liquids

Can receive in

- 55 gallon drums
- large totes
- Road tankers
(~ 4,400 gallon capacity)
- Rail Tankers
(20,000 gallon capacity)



Typical Volume Reduction

- **Standard DAW: 30 to 1**
 - Incoming Trash @ 8 to 12#/ft³
- **Oil and Aqueous Liquid: 100%**
 - Incoming low density < 5% solids
- **Laboratory Trash: 15 to 1**
 - Incoming glassware and sharps
- **Cloth PCs and Rubber Items: 30 to 1**
 - Incoming PCs, boots, hoses
- **Button Sources: 50 to 1**
- **Air Filters: 80 to 1**
 - Dependent on presence of inorganic (e.g. Metal)

Mixed Waste Services

- **Macroencapsulation of debris and lead solids**
 - Volume reductions of 2-3:1 achieved
- **Neutralization of acidic and caustic wastes**
- **Stabilization of RCRA Metals**
- **Thermal treatment of Organics**

Receipt Criteria

- **Contract with PEcoS or with someone that has a contract with PEcoS**
- **24 hour notice for LLW**
- **4 week notice for out of State MW**
- **Higher activity wastes (> 10 Ci) may require longer lead time**
- **visit www.pacificecosolutions.com for current acceptance guidelines and criteria**

More Receipt Criteria

- can take pretty much any type package
- must have a form 540/541 for waste
- receive via FedEx at the Pasco Terminal
- receive via highway or rail
- even via vessel if your boat floats

Summary

- Options to ship East or West (hopefully!)

- Comprehensive suite of services

Tell us what you got and we'll figure out how to handle it

- Knowledgeable staff, ready with solutions

Hard to say 'no'