



Ecology Update
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March 22, 2021



Outline

- Permitting
- Holistic negotiations
- TPA milestone negotiations

Permitting: education/status

- Ecology has more than 50 modifications to the Hanford hazardous waste permit in progress right now
 - There were 23 public comment periods in 2020
 - Multiple, sometimes concurrent public comment periods are required, but challenging to follow
- How does someone know what to comment on?



A quick introduction

- 34 facilities where hazardous waste was or is being Treated, Stored or Disposed of (also called TSD)
 - These facilities are called “units groups” in the Hanford hazardous waste permit
 - The 149 single shell tanks are 1 unit group
- Many of these unit groups have chapters in the current Hanford permit
 - Any of the chapters can be modified at any time
 - Some of the modifications are subject to public comment
- All of the units groups will have chapters when a new permit is issued
- More than 3,500 Hanford locations where waste was possibly spilled, leaked, or intentionally disposed (past practices) – 1,500 in Central Plateau
 - Tens to hundreds of these locations are bundled into cleanup decisions under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund)
 - Public comment is done via CERCLA process, not the Hanford permit



Current permit vs. Re-issued permit

- 1943: Hanford starts up
- 1976: Resource Conservation and Recovery Act (RCRA) Manages hazardous wastes “cradle to grave”
- 1984 – RCRA deemed applicable to Federal facilities (LEAF v. Hodel)
- 1989: Tri-Party Agreement signed with a purpose to develop a permit for Hanford facilities that treated, stored, or disposed of hazardous waste
- 1994: first Hanford permit was issued
 - Not all operating groups were included because of the size and complexity of Hanford
 - Additional groups were scheduled to be added until all were included
- 2004: Hanford permit “expired”
 - Regulations limit the term of a permit to 10 years
 - Permittees can continue to operate on an “expired” permit
 - The current permit will continued to be modified, until it’s re-issued
- 2022 (Dec): expected re-issue of the permit for public comment

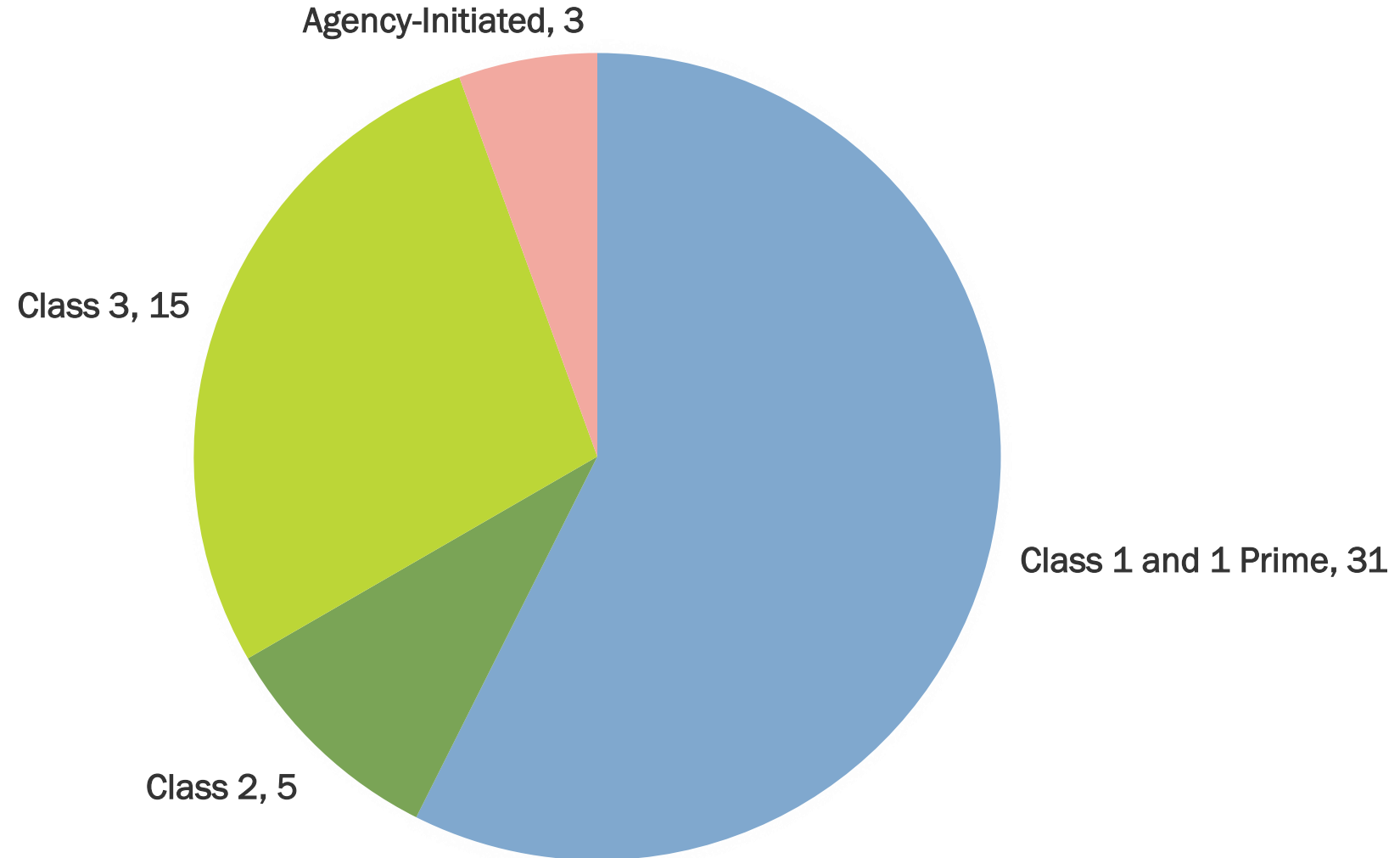


Classes of permit modifications

- Class 1 and 1' changes
 - Least significant. Permittee may put them into effect, and Ecology approves them quarterly
- Class 2
 - More significant. Single public comment period run by the permittee.
- Class 3
 - Most significant.
 - One public comment period run by the permittee.
 - One subsequent public comment period run by Ecology.
- Agency-initiated modification
 - Ecology starts modifications without a request from the permittee.
 - One public comment period run by Ecology.

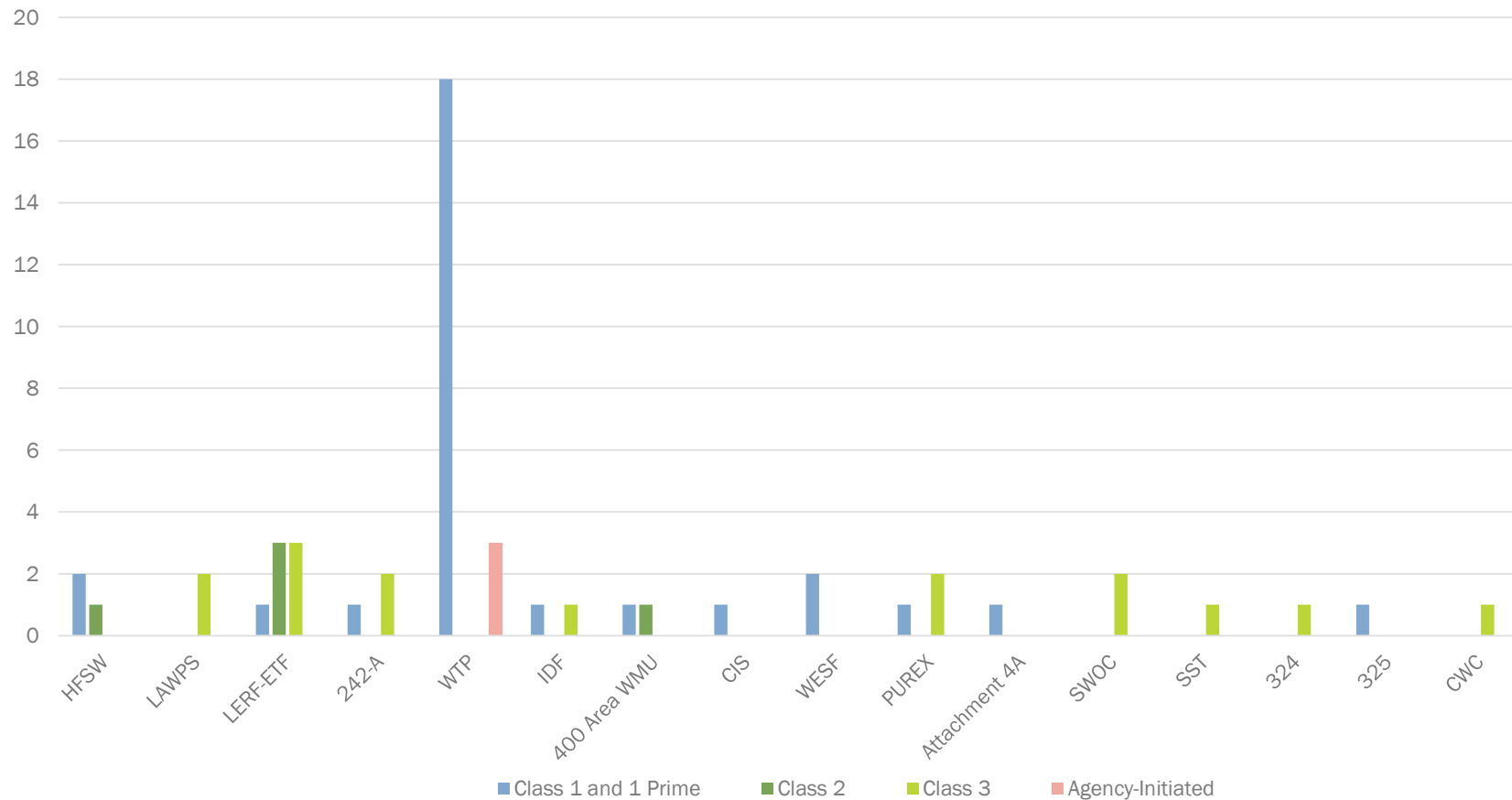


Hanford Site-wide Permit Rev. 8c Permit Modifications



Hanford Site-wide Permit Rev. 8c Permit Modifications by Unit Group

Hanford Site-wide Permit, Revision 8c Modifications



Acronyms Legend

HFSW: Hanford Facility Site Wide

LAWPS: Low Activity Waste Pre-Treatment

LERF-ETF: Liquid Effluent Retention Facility-Effluent Treatment Facility

242-A: 242-A Evaporator

WTP: Waste Treatment Plant

IDF: Integrated Disposal Facility

400 Area WMU: 400 Area (Fast Flux Test Facility) Waste Management Units

CIS: Cesium Interim Storage

WESF: Waste Encapsulation Storage Facility

PUREX: 221-A Building aka PUREX Plant

Attachment 4A: attachment to the permit

“Building Emergency Directors/Building Wardens

SWOC: Solid Waste Operations Complex includes T Plant, Central Waste Complex, Waste Receiving and Processing facility, Mixed Waste Disposal Trenches

SST: Single Shell Tank System

324: 324 Building

325: 325 Building

CWC: Central Waste Complex

Example description of a permit modification available for public comment

This modification proposes allowing facility upgrades associated with the new waste transfer lines from the Double-Shell Tank (DST) System to the 242-A Evaporator. The original transfer lines failed pressure tests in 2018 and must be replaced. Specifically, this modification allows penetrating a wall to install the transfer lines and to perform modifications in the pump-room. These new transfer lines will allow 242-A Evaporator to continue to treat DST waste, reducing DST waste volume, and allowing for continued Single-Shell Tank waste retrievals.

The transfer lines themselves are administratively controlled by the DST system and are being built under applicable interim status regulations. Construction of the lines is not a part of this permit modification.

<https://ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods##Open>

Example description of a permit modification in an Ecology presentation

The 242-A Evaporator Class 2 Permit Modification to include penetrations in the facility for upgraded double-shell lines has been reclassified to a Class 3 permit modification. The permittees provided IQRPE* documentation and there were technical issues with the documentation. (February-March 2021)

*Independent Qualified Registered Professional Engineer

Example Documents made available for the public comment period

Focus sheet

Transmittal letter

Cover sheet

Fact sheet

Conditions

Process Information

RPP-IQRPE-50066

RPP-IQRPE-50067

Determination of Significance and Notice of Adoption (SEPA)

Response to comments

ECN-715003 Rev01 Stamped

ECN-715004 Rev01 Stamped

ECN-715005 Rev00 Stamped

H-2-98988-2 R21 P&ID Evap Recirc System

H-2-98989-1 R29 P&ID Slurry System

CH-14-111832 R1 Wall Nozzle Assemblies 242-A Pump Room

UH-14-111834 R0 Jumper Assembly 41-5 242-A Pump Room

H-14-111835 R0 Jumper Assembly 43-13A 242-A Pump Room

MT-50400 R1 242-A Evaporator Waste Transfer Line Replacement

RPP-CALC-63208-01 Structural Analysis 242-A Pump Room Wall Nozzle Assemblies Plus Counterweight Lifting Devices

RPP-CALC-63211 ASME B31.3 Analyses New SL-170 SL-171 SL-172 SN-275 WTL 241-AW Tank Farm

RPP-CALC-63213 ASME B31.3 Analyses 41-5 43-13A Jumpers 242-A Evaporator Pump Room

RPP-CALC-63214 242-A Evaporator Pump Room Jumpers Supporting Analyses

RPP-RPT-61521 Material Compatibility Report Project T1P207 DST Replacement Waste Transfer Lines 241-AW

Focus Sheet picture (left) Full frame picture (right)



Holistic negotiations

- Ecology proposed holistic negotiation of tank waste retrieval, treatment
- Sessions are being facilitated by mediators from the Federal Mediation and Conciliation Service
- EPA is participating in the sessions in addition to USDOE, US Department of Justice, Ecology, and the Washington Attorney General Office
- Per a mediation agreement, the parties will not discuss status or progress during the negotiations
- Meetings continue to occur

Tri-Party Agreement negotiations transuranic mixed waste

- M-91 milestone series addresses transuranic mixed waste in storage at the Central Waste Complex (CWC) or retrievably stored in the Central Plateau burial grounds across the road from CWC
 - Milestone adjustments were required because of the shutdown then slow down at the Waste Isolation Pilot Plant (WIPP)
 - Also the WIPP closing date was extended from 2030 to 2050
 - DOE agreed to ship 99% of the waste off site by 2040
 - Tri-Parties signed a Tentative Agreement with draft milestones
 - March 9: ListServ notice of upcoming public comment period
 - April 26 – June 14 comment; May 13 virtual public meeting

Tri-Party Agreement negotiations

Central Plateau milestones (continued)

- Federal Fiscal Year 2018, 2019, and 2020 Appropriations by Congress were less than needed to achieve TPA milestones
 - TPA allows DOE-RL to propose changes to milestones in response to congressional budget appropriations that are less than estimated funding levels required
- September 2019, the Parties formed a team to develop an alternative approach
 - Accelerate cleanup decisions,
 - Ensure consistent remedies for similar waste sites,
 - Reduce characterization pre-Record of Decision (ROD), and
 - Conduct focused confirmatory characterization post-ROD
- Team reached agreement!

Tri-Party Agreement negotiations

Central Plateau milestones (continued)

- August 2020 Tri-Parties signed a Tentative Agreement to negotiate milestone changes based on the new approach <https://pdw.hanford.gov/document/AR-04031>
- March 2021 the lead negotiators couldn't agree on milestone changes
 - DOE planned budgets are a limiting factor
- Negotiations have been elevated to Tri-Party managers (3/18/2021)