U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Draft Waste Incidental to Reprocessing (WIR) Evaluation for Vitrified Low Activity Waste (VLAW) Disposed Onsite at Hanford

Ingrid Milton
U.S. Department of Energy
Environmental Management Program
Office of Regulatory Compliance

November 19, 2020

Presentation Overview

- Answer the following questions:
  - What is the purpose of this Draft WIR Evaluation?
  - Has DOE made other Determinations?
  - What is the WIR Consultation and Approval Process?
    - WIR Decision Process
    - WIR Criteria
  - How to submit comments

Purpose of the Draft Hanford VLAW WIR

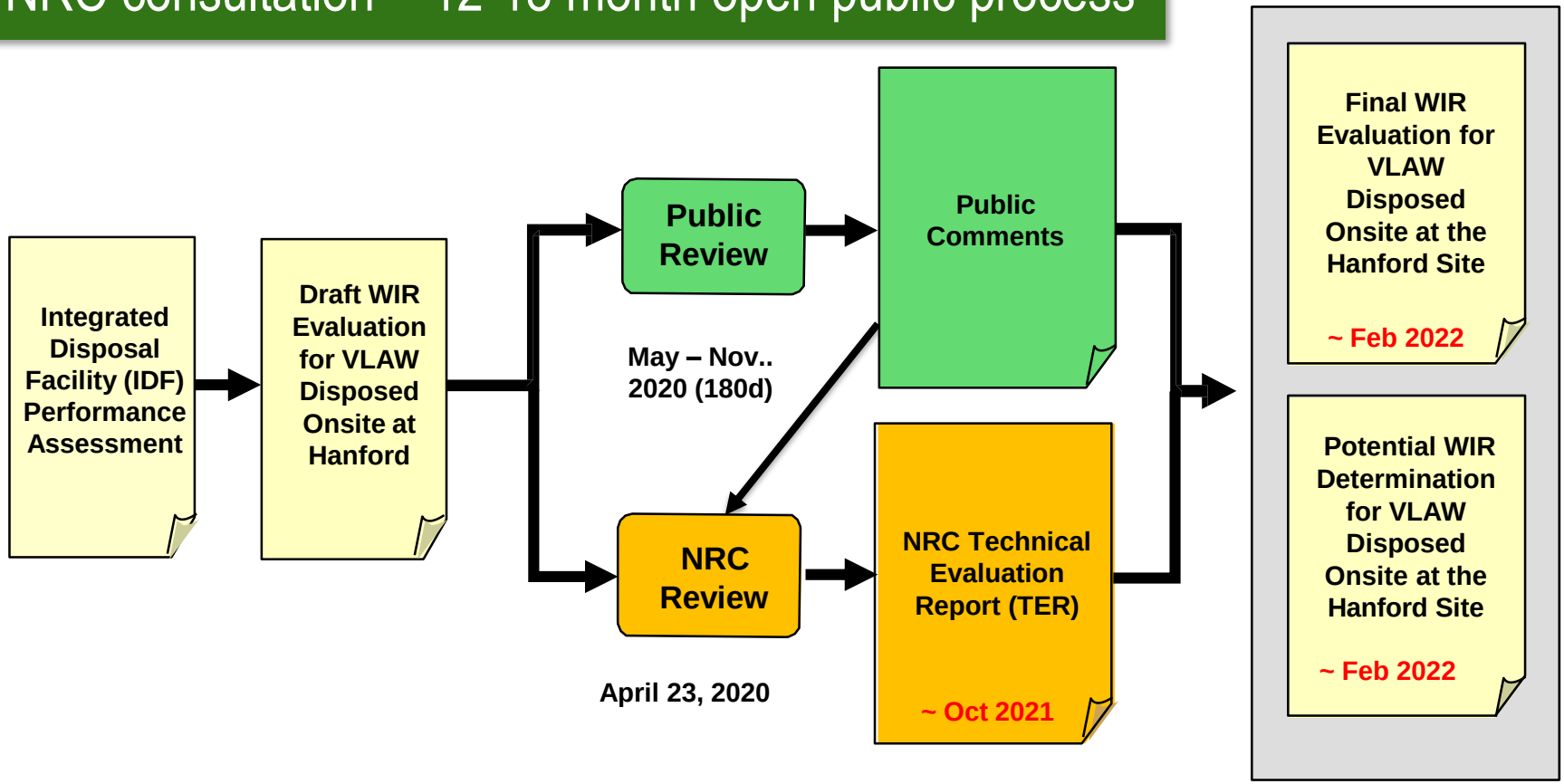
- DOE is on track to start vitrifying certain Hanford low-activity tank waste by the end of 2023 using the Direct-Feed Low-Activity Waste (DFLAW) approach.
- DOE has prepared a Draft WIR Evaluation to assess whether the vitrified low-activity tank waste can be safely disposed of at Hanford's Integrated Disposal Facility (IDF) as low-level radioactive waste, as has long been envisioned
- The Integrated Disposal Facility is a DOE authorized low level radioactive waste disposal facility and is also permitted by the State of Washington.
- Completing the Draft WIR Evaluation is an important part of the DFLAW mission. It represents a key step toward the safe onsite disposal of Hanford vitrified low-activity tank waste.

Has DOE made other Determinations?

- Previously used approach
- DOE has made several DOE Manual 435.1-1 WIR Determinations, based on WIR Evaluations
- Secretary of Energy has also made several determinations for waste at SRS and Idaho, pursuant to analogous criteria in Section 3116 of the National Defense Authorization Act for Fiscal Year 2005

WIR Consultation and Public Process

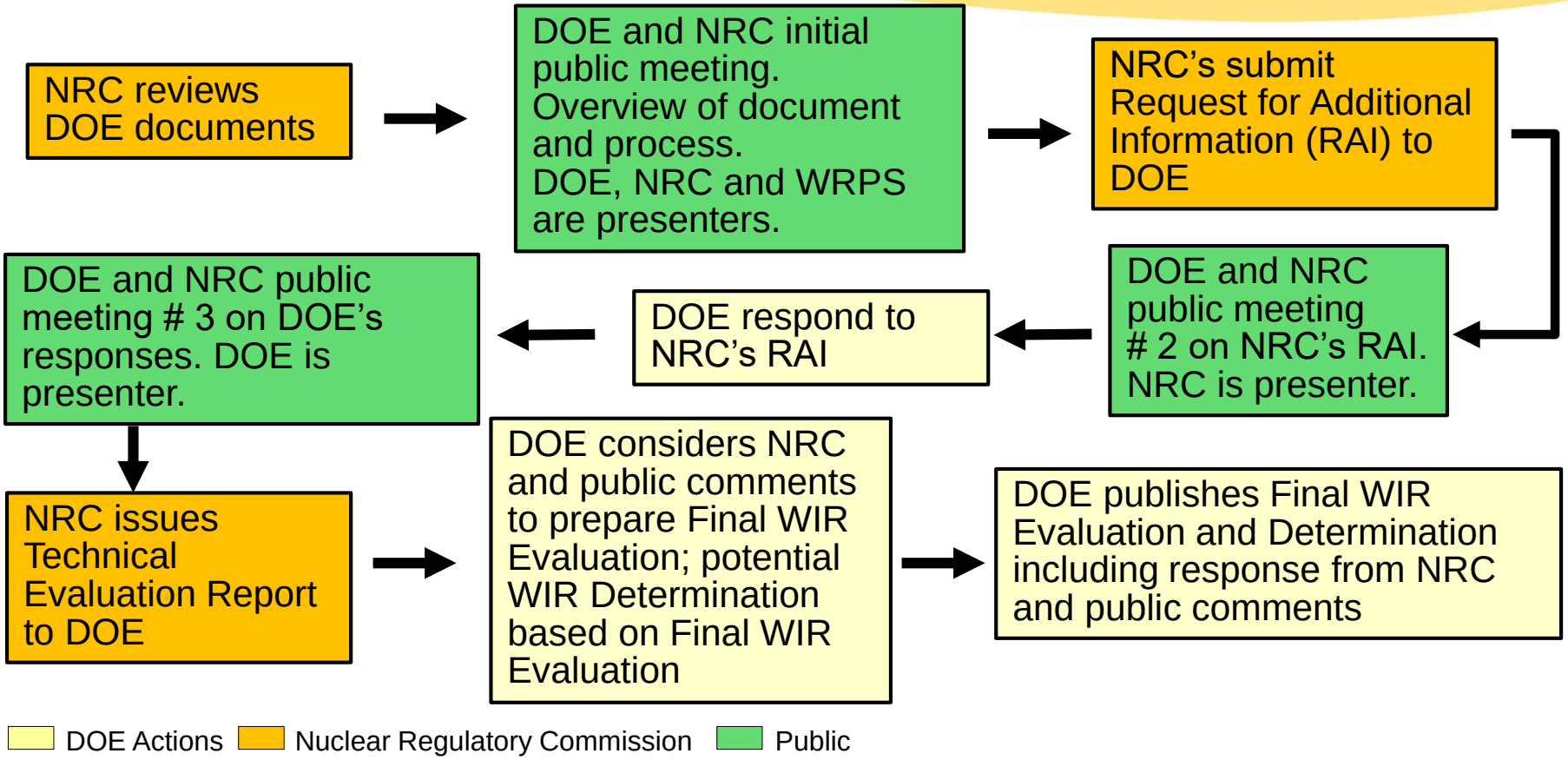
NRC consultation ~ 12-18 month open public process



DOE Actions | Nuclear Regulatory Commission | Public

All dates in red are estimates, subject to change

Open Public Process



DOE shares all public comments with NRC. DOE and NRC anticipate staff to staff, non-decision conference calls to ask clarification questions which will be open to the public to observe. DOE and NRC will post a summary of all public meetings.

WIR Criteria

The relevant DOE Manual 435.1-1 Chapter II, section B(2)(a) criteria for determining waste to be incidental to reprocessing:

1. Have been processed, or will be processed, to **remove key radionuclides** to the maximum extent that is technically and economically practical; and
2. Will be managed to meet safety requirements comparable to the **performance objectives** set out in 10 CFR 61 Subpart C; and
3. Are to be managed, pursuant to DOE's authority under the Atomic Energy Act of 1954, as amended, and in accordance with the provisions of Chapter IV of this Manual, provided the **waste will be incorporated in a solid physical form** at a concentration that does not exceed the applicable concentration limits for Class C low-level waste as set out in 10 CFR 61.55, Waste Classification

The Draft WIR Evaluation and supporting technical documents demonstrate that the VLAW disposed at the Integrated Disposal Facility (IDF) meet these criteria.

How can you access the Draft WIR Evaluation?

Online: https://www.hanford.gov/page.cfm/VitrifiedLowActivityWaste

The Draft WIR Evaluation will be publicly available for review at locations once these facilities re-open following resolution of public health concerns associated with the coronavirus:

U.S. DOE Public Reading Room
1000 Independence Avenue SW,
Washington, DC 20585
Phone: (202) 586–5955

U.S. DOE Public Reading Room located
2770 University Drive
Consolidated Information Center (CIC), Room 101L,
Richland, WA 99354
Phone: (509) 372–7303

How to Submit Comments

Written comments should be submitted via email to:

VLAWDraftWIR@rl.gov

Or postal mail to:

Ms. Jennifer Colborn
U.S. Department of Energy, Office of River Protection
Mail Stop H6-60
2440 Stevens Drive
Richland, WA 99354

Submit comments by November 27, 2020.

Late comments will be considered to extent practical.