

02-OSR-0489



U.S. Department of Energy  
Office of River Protection  
Mr. R. J. Schepens  
Manager  
P.O. Box 450, MSIN H6-60  
Richland, Washington 99352

CCN: 043644

OCT 04 2002

Dear Mr. Schepens:

**CONTRACT NO. DE-AC27-01RV14136 – DECISION TO DEVIATE FROM THE  
AUTHORIZATION BASIS FOR THE HANFORD TANK WASTE TREATMENT AND  
IMMOBILIZATION PLANT**

The purpose of this letter is to provide notification to the U.S. Department of Energy (DOE), Office of Safety Regulation (OSR) of a decision to deviate (DTD) from the authorization basis (AB) for the Hanford Tank Waste Treatment and Immobilization Plant. This DTD is being processed in accordance with the Integrated Safety Management Plan Section 3.3.3.3 and project procedures. This letter provides the written notification for this DTD.

The attached DTD describes a deviation from the Preliminary Safety Analysis Report to Support Construction Authorization (PSAR) Volume 24590-WTP-PSAR-ESH-01-002-04, Rev. 0, Section 2.4.11.14 Reagent Tank Room, H-B052. The details of the deviation and the change needed to the PSAR are described in the attachment to this letter.

Authorization Basis Change Notice 24590-WTP-ABCN-ESH-02-034 will be submitted to DOE for approval within 30 days of the approval of this DTD. Since this deviation was discovered after the Rev. 0 issuance of one of the affected design drawings, a Corrective Action Report is in process of being written.

This DTD was approved on October 3, 2002. Verbal notification of Bechtel National, Inc.'s intent to deviate from the AB was provided to the OSR on October 3, 2002 when the condition was discussed with Mr. Lew Miller.

**RECEIVED**

OCT 04 2002

**DOE-ORP/ORPCC**



# Decision to Deviate from the Authorization Basis

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*9-27-02*

DTD No: 24590-HLW-DTD-M-02-001

Rev No: A

The approvers of this form have determined that it is critical to project progress to temporarily deviate from the Authorization Basis (AB) as allowed in RL/REG-97-13. This temporary situation will be corrected no later than 30 days (or 90 days for changes requiring DOE approval) from the date this form is approved by the Area Project Manager. If DOE approval of the request to amend the AB is required, ES&H is responsible for notifying DOE verbally within 24 hours, and in writing (including a copy of this form) within 72 hours, after the DTD is approved.

ABCN No. 24590-WTP-ABCN-ESH-02-034

Safety Evaluation No. See Attachment #1

Identify the specific design changes that are not in compliance with the AB (include the document numbers of affected design documents).

Preliminary Safety Analysis Report to Support Partial Construction Authorization, Section 2.4.11.14, Reagent Tank Room (H-B052) describes the reagent tank room at the -21 ft level. This room was moved up to the 11 ft level. The instrumentation listed is no longer used in the tanks. We currently only require a level instrument in each tank. The bermed area is not lined with steel but instead a chemical resistant paint applied to the concrete.

Preliminary Safety Analysis Report to Support Partial Construction Authorization, Table 3-3, HLW Process and By-product Chemicals and Inventories lists the old BNFL style tank numbers, these numbers have been updated to the BNI RPP-WTP project format

Affected Documents / Drawings		
Number	Rev.	Title
24590-WTP-PSAR-ESH-01-001-04	0	Preliminary Safety Analysis Report to Support Partial Construction; HLW Facility Specific Information



## Decision to Deviate from the Authorization Basis

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DTD No: 24590-HLW-DTD-M-02-001

Rev No: A

Describe the specific deviation from the AB associated with implementing the change. Identify the AB document(s) and the affected section(s).

Preliminary Safety Analysis Report to support Partial Construction Authorization, section 2.4.11.14, Reagent Tank Room (H-B052).

Revise the text to read as follows:

### 2.4.11.14 Reagent Tank Room (H-0214)

The reagent tank room is located at the 11 ft level, in the southwest corner of the facility. This room is divided into three areas by berms. The floor and walls to the maximum expected liquid level are coated with a chemical resistant paint. This room stores and distributes chemicals to process areas within the facility. The following equipment are located in this room:

- 2M Nitric Acid Tank
- Sodium Hydroxide Tank
- Demineralized Water Tank
- 0.5M Nitric Acid Tank
- Distribution Pumps

The nitric acid tanks, sodium hydroxide tank, and demineralized water tank are provided with level indication. The nitric acid tank also has the provision for mixing. The sodium hydroxide and nitric acid tanks also have provisions for the addition of demineralized water.

Preliminary Safety Analysis Report to support Partial Construction Authorization, TABLE 3-3, HLW process and By-product Chemicals and Inventories, should change the tank numbers to the current naming convention used by BNI on the RPP-WTP project. The location of these tanks will also be updated as follows:

Row 8: T36001 (H417) should read "NAR-TK-00001 (H-0214)"

Row 9: T36002 (H417) should read "SHR-TK-00002 (H-0214)"

Row 10: T36004 (H417) should read "NAR-TK-00002 (H-0214)"

In addition to the Safety Evaluation referenced above, perform an evaluation to determine the following:

- The specific design changes do not cause or threaten imminent danger to the workers, the public, or the environment from radiological, nuclear, or chemical hazards.

Prepared by:

Thomas Galow  
Print/Type Name

Thomas Galow  
Signature

9-27-02  
Date

Decision to Deviate Number 24590-HLW-DTD-M-02-001, Rev 0  
Attachment #1

**1) Conformance with applicable laws and regulations, top level standards and principles, and SRD safety criteria is maintained.**

This deviation is not related to rules for nuclear activities (10CFR820), nuclear safety management (10CFR830), or occupational radiation protection (10CFR835). Therefore compliance with applicable laws and regulations is maintained.

This deviation is limited to the tank instrumentation in the reagent tanks, the tank naming convention, the tank room elevation and the berm liner material. This deviation is beyond the level of detail provided in the top level safety principles for design (RL/REG-96-00006, Section 4.2.1). These changes continue to conform with top level design principles. Therefore, conformance to top level safety principles is maintained.

These changes satisfy all SRD criteria.

**2) The specific design changes do not cause or threaten imminent danger to the workers, the public, or the environment from radiological, nuclear, or chemical hazards.**

These changes do not comprise the safety features of the chemical reagent tanks or their associated equipment. No radiological or nuclear equipment or processes are associated with the accompanying changes.