

7/20/87

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WM Record File  
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WM Project 10  
Docket No. \_\_\_\_\_

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Distribution:  
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MEMORANDUM FOR: John J. Linehan, Acting Chief (Return to WM, 623-SS)  
Operations Branch  
Division of High-Level Waste Management

FROM: Ronald L. Ballard, Chief  
Technical Review Branch  
Division of High-Level Waste Management

SUBJECT: NRC'S INVITATION TO THE DOE TO PARTICIPATE IN THE YAKIMA  
FOLD BELT GEOLOGIC FIELD TRIP OF AUGUST 3-6, 1987

On July 20 Dr. Bell approved HLWM's Geologic Field Trip of August 3-6, 1987, to the Yakima Fold Belt. This trip, to be led by Dr. Robert Bentley of Central Washington University at Ellensburg, will involve examinations and observations at many field exposures having a direct bearing on many issues of long-standing concern to NMSS including Quaternary faulting and the timing and rate of deformation of the Yakima Fold Belt - a geologic province within which the RRL is located. The field trip has been discussed in specific terms with the BWIP DOE who has expressed a desire to be invited to this NRC-initiated activity. DOE's presence at the field trip, along with representatives of Washington State and the affected Indian Tribes, is a critical element in the resolution of issues prior to license application. In addition to DOE personnel, an invitation should be extended to several principal scientists from DOE's contractor - Westinghouse. Specifically beneficial to the success of the field trip would be the following Westinghouse personnel: Steve Reidel, Terry Tolan and Joseph Caggiano. Since the field trip date of August 3 is fast approaching, your prompt attention to this matter is essential. The attached agenda should accompany NRC's invitation to DOE to participate in this field trip.

**ORIGINAL SIGNED BY**

Ronald L. Ballard, Chief  
Technical Review Branch  
Division of High-Level Waste Management

Enclosure:  
Field Trip Agenda

cc: R. Browning  
M. Bell

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**AGENDA FOR THE BWIP FIELD TRIP WITH  
DR. ROBERT BENTLEY, CENTRAL WASHINGTON UNIVERSITY, ELLENSBURG, WA  
AUGUST 3-6, 1987**

**Orientation:**

On August 3, the participants will convene at 8:00 am in the Geology Department of Central Washington University for a overview presentation by Dr. Bentley on the geology of the Yakima Fold belt, Central Washington.

**Field Trip:**

Ellensburg, WA, will serve as the base of the field trip on August 2-4. We will spend the night of August 5, in Yakima, WA.

**August 3, 1987 - The Vantage syncline as an analog to the Cold Creek Syncline:**

- 1) Tectonic breccia zones
- 2) Schnebly/Hell's Canyon fault
- 3) Evidence for or against deformation in pre-Wanapum time.
- 4) Relationship of folding to faulting.

**August 4, 1987 - Timing and style of Deformation in the Yakima Fold belt and Evidence for Quaternary faulting**

- 1) Evidence for the timing of initiation of deformation in the Yakima Fold belt including thinning.
  - a. Measured sections near Sentinel Gap.
- 2) Evidence of the age of faulting within parts of the Yakima Fold belt.
  - a. Field evidence for the age of faulting along the Umtanum fault.
  - b. Filey Road area.
- 3) Evidence about the style of folding and the relationship of folding to faulting.

**August 5, 1987 - Evidence for post 10 million year old faulting.**

- 1) Quaternary faulting along Toppenish Ridge.
- 2) Quaternary faulting apparent at Yakima Ridge.
- 3) Quaternary faulting on Umtanum Ridge at Union Gap.

August 6, 1987 - Evidence for the timing the initiation of deformation in the Yakima fold belt and Holocene faulting along the Columbia River - J.L. Anderson (Pomona College).

- 1) Measured sections in the Columbia Hills.
- 2) Evidence for faulting along the Luna Butte and Arlington fault zones.

NRC Lodging:

	<u>City</u>	<u>Motel</u>	<u>Telephone</u>
August 2-4	Ellensburg, WA	Best Western	509-925-9801
August 5	Yakima, WA	Holiday Inn	509-452-6511
August 6	Richland, WA	Rivershore	509-946-4661

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 BELT GEOLOGIC FIELD TRIP OF AUGUST 3-6, 1987

DATE:

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CONCURRENCES

ORGANIZATION/CONCUREE	INITIALS	DATE CONCURRED
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NOTE: SEE PREVIOUS CONCURRENCE

(Mailed by the WMDCC)  
 7/23/87 5:01 p.m.  
 Date 7, Time 01