

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**MEETING OF APRIL 11 AND 12, 2001**

Lancaster

**ITEM:** 8

**SUBJECT:** **REVISED WASTE DISCHARGE REQUIREMENTS FOR CLOSURE,  
BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY,  
FORT IRWIN ROAD LAND TREATMENT FACILITY, SAN BERNARDINO  
COUNTY**

**CHRONOLOGY:**

1957	The Atchison, Topeka and Santa Fe Railroad, now Burlington Northern Santa Fe (BNSF) Railway, starts waste disposal operations at site
August 1986	The Regional Board most recently adopts revised Waste Discharge Requirements (WDRs)
1993	The BNSF stops waste disposal operations and continues soil tilling and monitoring
August 2000	The BNSF submits a technical report demonstrating that petroleum hydrocarbons in soil are reduced
December 2000	The BNSF submits a closure plan

**ISSUE:** Should the Regional Board adopt revised WDRs conditionally approving the closure plan and include requirements for 1) submitting a post-closure maintenance plan, 2) a revised financial assurance report, 3) evaluating the human and ecological health risk of contaminants in shallow soil, 4) evaluating the vertical extent of contaminants in soil below the treatment zone, 5) evaluating the nature and extent of contaminants in ground water, and (6) proposing any corrective actions needed in addition to those described in the closure plan.

**DISCUSSION:** The BNSF Railway disposed of sludge material containing locomotive grease, lubricating oil, diesel fuel, and caustic detergent at the unlined Ft Irwin Road Land Treatment Facility from 1957 to 1993. Since then, the Discharger has tilled the shallow soil and continued to monitor ground water.

The Discharger submitted a Closure Design Report in December 2000 for site grading and drainage work and installing a 6-inch native soil cover. The Discharger proposed to abandon and destroy the existing ground water monitoring wells. The Proposed Order conditionally approves the Closure Design Report except for abandonment of the wells.

The Proposed Order requests that a Post-Closure Maintenance Plan be submitted along with a revised estimate of Financial Assurance. The Discharger has not adequately demonstrated the full vertical extent of all contaminants in soil beyond the 5-foot treatment zone. The Proposed Order requests a work plan and technical report describing the vertical extent of all contaminants in the low-lying northern portion of the site.

Wastes that contain burned motor oil contain semi-volatile organic constituents (SVOCs). Some SVOCs may become wind blown and are toxic if ingested. The Proposed Order requests a human and ecological risk evaluation of contaminants that remain in surface soil.

The historical ground water data indicate increasing concentrations of some constituents in ground water at the site, primarily in well MW-3. Wells MW-1 and MW-3 adjacent to the site historically detected sporadic hits of petroleum hydrocarbons and related VOCs in ground water although the recent data do not indicate so. The primary constituents indicating a release from the unit are elevated methyl blue active substances (MBAS), total dissolved solids (TDS), nitrate, iron, and chloride. Elevated chromium detected in 1998 may, or may not, reflect a release from the site, although chromium was present in the waste disposed. Because of this information, the Proposed Order requests the Discharger to complete a technical evaluation of the nature and extent of ground water degradation.

Regional Board staff solicited comments from the Discharger and interested parties. Comments were received from the Discharger, Department of Water Resources (DWR) and Department of Health Services (DHS). These comments are enclosed. Comments from DWR and DHS, and some of the comments from the Discharger have been incorporated into the Proposed Order. The Discharge did not agree with the Tentative WDRs and requested a delay in considering Proposed WDRs. The Discharger questions the need to complete a surface soil risk evaluation, vertical waste migration profile and degraded ground water evaluation. Board staff believes that completing these measures are necessary to ensure that Site Closure is protective of human and ecological health and ground water quality, and sufficient information is available to revise the WDRs.

**RECOMMENDATION:**

Adoption of Order as proposed.

**Enclosures:**

1. Proposed Board Order
2. March 23, 2001 RB staff letter
3. March 16, 2001 BNSF letter
4. March 9, 2001 RB staff letter
5. March 7, 2001 DWR letter
6. March 6, 2001 TRC Workplan
7. February 22, 2001 email from DHS
8. February 16, 2001 RB staff letter
9. May 15, 1997 BNSF letter