



January 26, 2004

PERMIT TO MINE NO. 478

Department of Environmental Quality
Mr. Mark Taylor
Land Quality Division
1043 Coffeen Ave. Suite D
Sheridan, Wyoming 82801

RE: Wellfield water spill - Christensen Ranch Project Mine Unit 4.

Dear Mr Taylor:

This letter serves as follow-up notification of the event reported to you by phone call on January 20, 2004. The event was also reported to Mr. Joe Hunter, Wyoming Department of Environmental Quality (WDEQ) Spill Response Office on 1/19/04, and to Ms. Elaine Brummett our Nuclear Regulatory Commission (NRC) Project Manager on 1/20/04. As required under Chapter IV, Section 4 of the Water Quality Division (WQD), all spills of "hazardous" substances that enter or threaten to enter waters of the state and any spill > 420 gallons must be reported to the WDEQ-WQD within 24 hours of discovery of the event.

INTRODUCTION:

The event involved the loss of 3,179 gallons of wellfield re-circulation water on January 16, 2004. The spill occurred at a recently re-activated well (4M42-2) in Module 4/1 of Mine Unit (MU) 4 at the Christensen Ranch (CR) operations, Section 7, T.44 N., R.76 W., Johnson County, Wyoming. This well was being brought on-line to utilize as an injection well during the re-circulation phase of restoration in MU 4. The water being injected into the well consists of re-circulated groundwater from the restored mining zone, and would typically contain only minor anion/cation constituents and 5.6 ppm U_3O_8 .

INCIDENT CONDITIONS:

According to Mr. Rick Kukura - CR Operations Foreman; well 4M42-2 had been activated for fluid injection at approximately 9:00 A.M. on 1/16/04 and had no visible problems at that time. At 9:00 P.M. the wellfield operator discovered that the plastic wellhead piping had frozen and broken off sometime during the 12 hour period between inspections. The well was flowing its full stream of injection water onto the surface of the ground and down gradient some 1,500 to 2,000 ft. along a shallow draw that is a tributary to Willow Creek. The operator immediately turned the well off and

reported it to the CR plant. The lost water had soaked into the ground and/or formed ice as it mixed with naturally occurring snow and ice build-up within the draw. Therefore, no fluid was recoverable from the spill site.

INCIDENT INVESTIGATION & ENVIRONMENTAL IMPACT:

Mr. Wayne Heili - CR Operations Manager, Mr. Rick Kukura and myself visited the spill site on the afternoon of January 19, 2004. From the module flow instrumentation we were able to determine that during the period prior to discovery of the broken wellhead 3, 179 gallons of fluid was pumped to the well site. We are assuming that the wellhead was frozen prior to the well being turned on and that this entire quantity of fluid was lost to the surface of the ground. The surface surrounding the wellhead was muddy and an obvious water flow path trended down gradient toward the dry draw. Only minor erosion was evident along the pathway and no erosion occurred once the flow entered the valley floor. It was apparent that no fluid from this spill reached the confluence of this draw with Willow Creek and certainly no wetlands of the state were endangered by the spill. A water sample collected from this wellhead on 1/16/2004 indicated a U_3O_8 level of 5.6 ppm. A soil sample taken on 1/20/04 has been sent to Energy Labs in Casper, Wyoming for uranium and radium-226 analysis. The site will be included in our spill investigation record for review and assessment of required clean-up during decommissioning operations at CR.

IN-HOUSE REVIEW & CORRECTIVE ACTION:

With winter site operations, frozen and cracked piping are an on-going concern that we face. Prior to well start-up we routinely have the operators inspect the wellheads, however ice build-up within the plastic pipe may not result in rupture until pumping pressures build; and therefore cannot be eliminated as a possible spill factor. As wellfield areas are turned back on we typically require that the operators visit the area to do a visual inspection for any start-up problems. This is our most effective method in prevention and quick response to such problems.

Please contact me if you require any additional information on this incident.

Sincerely,



Tom Nicholson
Environmental Specialist/RSO

Attachment: Spill Investigation Report.

CC: Joe Hunter, WDEQ-Spill Response Coordinator
E. Brummett, NRC - Project Manager
C. Cain, NRC- Region IV Branch Chief
D. Wichers, COGEMA - General Manager

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SPILL INVESTIGATION REPORT

Fill out the entire top portion of this form for any spill that meets the following criteria then present form to your supervisor:

1. Any amount of injection or recovery solution that enters a dry draw, playa, or drainage (i.e. Willow Creek).
2. Spill exceeds 420 gallons of recovery or injection solution.
3. Any amount of solution which is not recovery or injection solution.

Notify your supervisor, the Environmental Department, or the RSO office concerning any solution that meets the criteria for items 1 or 2! Notification should be done as soon as possible during business hours, and within 12 hours of discovery on weekends, holidays, or nights.

Date of spill: 1/16/04

Time of spill: 21:00

Location: IR CR

Location/Well Id. MOO 41 AM42-2 W.H.

Type of spill: Injection solution
 Other (List) Re-Circ WATER Recovery solution

Did solution enter Willow Creek, a dry draw, a playa, or drainage? Yes No

Estimated gallons: 2400 3179

Sample collected: Yes No

Amount recovered: 0

Person notified and time: _____

Explain how spill occurred, corrective actions taken, and other pertinent information.

LOOKS LIKE THE THREADS ON 1" NIPPLE @ TRANSITION
FITTING BROKE OFF - SHUT WELL OFF FOR REPAIR
LEE IN THE NIPPLE CAUSED THE PLASTIC PART TO BREAK WHEN PUMPING
STARTED.

Employee: John Ford

This portion is to be filled out by employee's supervisor, verifying cause of spill and method of preventing future spills of this nature.

probably happened to avoid due to winter conditions

Signature: [Signature]

Title: Rest. Foreman

This portion to be filled out by the Environmental or Radiation Department.

Lab analysis of solution: U308 5.6 ppm (JR) Spill reported to: NRC DEQ

Describe environmental damage, additional corrective action, recommendations, other information. minor erosion of draw feeding to willow creek
soil sample taken for lab (EIT) analysis

Signature: [Signature]

Title: RSO