Carl E. Kingston, #1826
3212 South State Street
Salt Lake City, Utah 84115
(801)486-1458

F. Mark Hansen, #5078
624 North 300 West, Suite 200
Salt Lake City, Utah 84103
Telephone: (801) 533-2700

Attorneys for Co-op Mining Company

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**MOTION TO SUMMARILY DENY WATER USER'S OBJECTIONS TO CO-OP'S PERMIT RENEWAL** Docket No. 95-025 Cause No. ACT/015/025

Co-op Mining Company (Co-op) moves the Division for an order summarily denying Water User's objection to the renewal of Co-op's mining permit, on the grounds Water User's objections are barred by collateral estoppel. In bringing this Motion Co-op does not waive and expressly reserves its right to put on further evidence in the Division's informal conference; requests that Co-op not be required put on evidence if the Division grants this Motion; and requests that the informal conference be continued without date until the Division rules on this Motion.

STATEMENT OF FACTS

1. On July 21, 1994 the Division approved Co-op's Application for Significant Permit Revision to mine the Tank seam. The Division based its decision on its findings that the permit area and Water Users' springs were not hydrologically connected.

2. Water Users appealed to the Board of Oil, Gas and Mining. The Board conducted a full evidentiary hearing on Water Users' appeal, and on June 13, 1995 issued its Order, which included the following findings of fact and conclusions of law:

> 40(c) no direct connection between any water that might in the future be located in the Tank Seam and the ostensible regional aquifer has been established ....
> 52(a) Tritium analysis establishes that Big Bear spring and water encountered by Co-op during mining are not of the same age, and thus hydrologicaly distinct;
> (b) chemical analysis supports, although it alone does not conclusively establish, the conclusion that Birch spring and the mine water are hydrologically distinct;
> (c) the existence of the Blind Canyon fault between the mine and Birch spring would preclude waters encountered in the mine from reaching Birch spring;
> (d) Co-op's more-localized hydrologic model supports the conclusion waters encountered in the Bear Canyon mine from perched aquifers and/or the Spring Canyon member of the Star Point sandstone are hydrologically distinct from the springs, which issue from the Panther member of the Star Point sandstone.

3. On June 19, 1995, Co-op applied for renewal of its mining permit. Water Users filed an objection and requested an informal conference. On October 17 and November 8, 1996 the Division began the informal conference, and Water Users presented all evidence in their case in chief. Water User's case consisted of evidence similar to that presented at the Board hearing on the Tank seam application, and attempts to collaterally attack the Board's findings of fact and conclusions of law that the permit area and the springs are not hydrologically connected.

4. Water Users also appealed the Board's Decision approving the Tank seam revision. On December 31, 1996, after the Division began its informal conference, the Utah Supreme Court, in an unanimous Opinion, affirmed the Board's Decision:

> The Board's order affirmed the Division's approval of the permit revision and declined to impose the additional conditions. In the accompanying findings of fact and conclusions of law, the Board stated that the Blind Canyon seam was hydrologically separate from the springs and that Co-Op's prior mining operations had not affected the springs. [at 3]
> ... At the hearing the Board received evidence from Water Users supporting their theory of an interconnected water system joining the permit area and the springs, and from Co-Op and the Division supporting the contrary theory that the springs and the permit area are in separate water systems. The Board found that there was no connection ... [at 6]
> ... During the hearing Water Users introduced a broad range of evidence about the geology and hydrology of the permit and spring area, including evidence relating to the Blind Canyon seam. Water Users argued that this evidence was relevant to the effect of mining the Tank seam for several reasons, all of which in some way relied on the theory that the Blind Canyon seam and the springs were part of a single connected water system. Despite multiple objections by Co-Op and the Division,

none of Water Users' offered evidence was excluded as irrelevant. After Water Users concluded their evidentiary case, Co-Op and the Division responded with evidence showing that the springs and the coal seams were in fact in separate water systems and that as a result neither the past nor the proposed future mining activities could affect the springs. [at 6-7]

Water Users' claim that the challenged findings harm them is more accurately expressed by their due process challenge. At root, this complaint is that because they did not expect the Board to make findings and conclusions about the Blind Canyon seam ..., they effectively will be foreclosed from opposing the renewal of the Blind Canyon permit without ever having an adequate opportunity to litigate those issues. ... The record does not support this claim. ... Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda. [7-9] [Exhibit 1, attached]

ARGUMENT

In its June 13, 1995 Order the Board ruled Co-op's permit area is hydrologically isolated from Birch and Big Bear springs. The doctrine of collateral estoppel precludes Water Users from trying that issue again. Collateral estoppel in an administrative action is governed by the rules controlling the like effects of a court judgment. 2 AmJur 2d Administrative Law §500. in Searle Bros. v. Searle, 588 P.2d 689, 691 (Utah 1978), the Utah Supreme Court established a four-part test to determine whether a party is barred from relitigating an issue in a subsequent suit:

1. Was the issue decided in the prior adjudication identical with the one presented in the action in question?
2. Was there a final judgment on the merits?
3. Was the party against whom the plea is asserted a party or in privity with a party to the prior adjudication?
4. Was the issue in the first case competently, fully, and fairly litigated?

A. The Issues Are Identical.

The central issue previously tried to the Board was whether a hydrologic connection exists between the permit area and Birch and Big Bear Springs. The Board found there is no hydrologic connection between the permit area and the springs. Water Users now want to reargue there is such a hydrologic connection. The two fact issues are identical.

B. There Was a Final Judgment on the Merits.

The Board's June 13, 1995 Decision was a final appealable order. Water Users appealed that Decision. On December 31, 1996 the Utah Supreme Court entered its unanimous Opinion affirming the Board's decision in its entirety. The Board's Decision, affirmed on appeal, is a final judgment on the merits that no hydrological connection exists between Co-op's permit area and Big Bear and Birch Springs.

C. The Parties Are Identical.

The parties in the pending matter are the identical entities who were involved in the Division, Board and Supreme Court proceedings on Co-op's significant permit revision.

D. The Issue Was Competently, Fully, and Fairly Litigated.

In Copper State Thrift & Loan v. Bruno, 735 P.2d 387, 391 (Utah App. 1987), the Court stated:

> The final element of collateral estoppel requires that the issue was competently, fully, and fairly litigated in the first forum. This element stems from fundamental due process and requires that litigants have their day in court.

The Utah Supreme Court has held that the lack of a hydrological connection between the permit area and the springs has already been competently, fully and fairly litigated.

> Water Users' claim that the challenged findings harm them is more accurately expressed by their due process challenge. At root, this complaint is that because they did not expect the Board to make findings and conclusions about the Blind Canyon seam ..., they effectively will be foreclosed from opposing the renewal of the Blind Canyon permit without ever having an adequate opportunity to litigate those issues. ... The record does not support this claim. ... Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda.

Castle Valley Special Service Dist. *et al* v. Utah Board of Oil, Gas and Mining, No. 950487 at 7-9 (Utah 1996) [Exhibit 1, attached].

CONCLUSION

The Board has held the springs are hydrologically isolated from the permit area. The Utah Supreme Court has unanimously affirmed the Board's Decision on that issue. Water Users have already had their day in court, and lost. Water Users are barred by collateral estoppel from retrying that issue. They are not entitled to another bite of the apple. As a matter of law, Co-op has already established that the permit area and the springs are in separate water systems, and that the underground effects of Co-op's mining cannot adversely affect the springs. Therefore, the Division should abide by the prior decision Board and the Opinion of the Utah Supreme Court, overrule Water User's objections, and affirm the renewal of Co-op's mining permit.

DATED this 3 day of January, 1997.

Mark C. Hansen
Attorney for Co-op Mining Company

CERTIFICATE OF SERVICE

I certify on January 3, 1997 I served the above document by first class mail to:

J. Craig Smith
David B. Hartvigsen
NIELSEN & SENIOR
60 East South Temple, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
North Emery Water Users' Association and
Huntington-Cleveland Irrigation Company

Jeffrey W. Appel
Benjamin T. Wilson
COLLARD, APPEL & WARLAUMONT
9 Exchange Place, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
Castle Valley Special Service District

Mark C. Hansen

2006p.005

IN THE SUPREME COURT OF THE STATE OF UTAH

----oo0oo----

Castle Valley Special Service District, North Emery Water Users Association, and Huntington-Cleveland Irrigation Company,
Petitioners,

v.

Utah Board of Oil, Gas and Mining,
Respondent.

C.W. Mining Co. dba Co-Op Mining Company,
Intervenor.

No. 950487

F I L E D

December 31, 1996

Original Proceeding in this Court

Attorneys: James L. Warlaumont, Jeffrey W. Appel, Benjamin T. Wilson, Salt Lake City, for Castle Valley
J. Craig Smith, David B. Hartvigsen, Salt Lake City, for North Emery and Huntington-Cleveland
Jan Graham, Att'y Gen., Thomas A. Mitchell, Patrick J. O'Hara, Asst. Att'ys Gen., Salt Lake City, for Board of Oil, Gas & Mining
F. Mark Hansen, Carl E. Kingston, Salt Lake City, for Co-Op Mining

---

STEWART, Associate Chief Justice:

Petitioners Castle Valley Special Service District, North Emery Water Users Association, and Huntington-Cleveland Irrigation Company (collectively, Water Users) seek review of an order of the Utah Board of Oil, Gas and Mining (Board) denying Water Users' petition to amend a previous order and its accompanying findings of fact and conclusions of law. The Board entered the first order following a hearing in which Water Users sought reversal of the grant of a revision of intervenor Co-Op

Exhibit 1

Mining Company's (Co-Op) coal mining permit by the Division of Oil, Gas and Mining (Division). Water Users object to (1) certain findings of fact and conclusions of law made by the Board in support of its order affirming the permit revision grant, and (2) the Board's refusal to order Co-Op to identify and provide water resources to ameliorate alleged past and future harm to Water Users' springs caused by Co-Op's mining.

The events leading to our review of Water Users' petition began when Co-Op applied to the Division for a significant revision of its underground coal mining permit. Under this permit, Co-Op was mining a layer or seam of coal known as the Blind Canyon seam that is located in Emery County. The requested revision would permit Co-Op to mine another layer of coal, the Tank seam, located within the existing permit area about two hundred feet above the Blind Canyon seam. The validity of the existing permit was not at issue in the hearings held on the revision request. A renewal application for that permit was later submitted to the Division in separate proceedings. Water Users have expressed concern that some of the Board's findings and conclusions would collaterally estop them in the permit renewal hearing, and this appears to be the primary motivation for contesting those findings and conclusions. However, whether the challenged findings would collaterally estop Water Users on any issues in the permit revision proceeding can be decided only in the proceeding in which the issue is raised. We therefore do not address that issue here.

I

Water Users include a special service district, a nonprofit water users association, and a mutual irrigation company, and they provide water for culinary and irrigation purposes in northern Emery County. The bulk of this water comes from two springs, Birch Spring and Big Bear Spring, which are located near Co-Op's mine but just outside the permit area. Water Users opposed the Tank seam revision, claiming that Co-Op's mining has reduced the quantity and quality of water from these springs. The Division approved the revision. Water Users appealed to the Board, arguing that the revision application was defective in failing to recognize and address ongoing harm to the springs from Blind Canyon mining and that the extension of mining operations into the Tank seam would continue and increase that harm. Water Users asked the Board to deny the permit revision or, alternatively, to condition the revision on the requirements (1) that Co-Op "provide, at no expense, replacement water to [Water Users] to mitigate the adverse impacts of its mining activity" on the springs and (2) that Co-Op "implement adequate

procedures to protect these water sources from contamination." Co-Op denied that its mining activities had affected the springs.

The Board's order affirmed the Division's approval of the permit revision and declined to impose the additional conditions. In the accompanying findings of fact and conclusions of law, the Board stated that the Blind Canyon seam was hydrologically separate from the springs and that Co-Op's prior mining operations had not affected the springs. Water Users petitioned the Board to strike these findings and conclusions and to require Co-Op to identify replacement water sources.[1] The Board declined to do so. We granted Water Users' petition for review.

II

We turn first to the replacement water issue: whether the Board erred in refusing to order, under 30 U.S.C.A. § 1309a (West Supp. 1996), Co-Op to either (1) identify or (2) actually provide water resources to replace spring water that had been or might be diverted or contaminated as a result of Co-Op's mining. The regulation of surface and underground coal mining is governed generally by the federal Surface Mining Control and Reclamation Act (Surface Mining Act or Act), Pub. L. No. 95-87, 91 Stat. 445 (1977) (codified as amended at 30 U.S.C. §§ 1201-1328). The Surface Mining Act establishes procedures for the issuance of mining permits and detailed standards for the conduct of mining operations, including standards designed to limit the impact of mining on water resources. However, the Act permits a state to undertake primary responsibility for regulating mining, with subject to oversight by the federal Office of Surface Mining, by enacting a state regulatory program at least as stringent as the requirements set forth in the Act. 30 U.S.C. § 1253 (1988). State statutes and regulations thus become the direct authority for regulating coal mining. Utah has qualified for primary enforcement authority. See 30 C.F.R. § 944.10 (1996) (approving Utah's coal mining program effective January 1981).

Water Users asked the Board to order replacement water on the authority of 30 U.S.C.A. § 1309a(a)(2), a relatively

---

[1] Water Users' petition for modification described the issue presented to the Board at the hearing as whether to direct water replacement remedies (identification or provision of replacement sources) for impacts which might result from Tank seam operations. In their original petition to the Board, Water Users asserted that they needed these remedies in part because of harm from existing operations.

recent addition to the Surface Mining Act.[2] In relevant part, section 1309a(a) provides:

> § 1309a. Subsidence
>
> (a) Requirements
>
> Underground coal mining operations conducted after October 24, 1992, shall comply with each of the following requirements:
>
> . . . .
>
> (2) Promptly replace any drinking, domestic, or residential water supply from a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.
>
> Nothing in this section shall be construed to prohibit or interrupt underground coal mining operations.

30 U.S.C.A. § 1309a (West Supp. 1996). Following enactment of 30 U.S.C.A. § 1309a, the Utah Legislature adopted a provision closely tracking the language of another portion of 30 U.S.C.A. 1309a, but it did not include a provision corresponding to subsection (a)(2). Compare 30 U.S.C.A. § 1309a(a)(1) with Utah Code Ann. § 40-10-18(4) (Supp. 1996). Despite this difference, the Office of Surface Mining approved section 40-10-18(4) as an amendment to Utah's coal mining program. 30 C.F.R. § 944.15(ff)(1996) (approval effective July 1995). Water Users' argument that they are entitled to replacement water therefore rests on 30 U.S.C.A. § 1309a rather than on Utah law.

The Board rejected Water Users' request for identification and/or provision of replacement water. The Board ruled that section 1309a was inapplicable to Water Users because they had failed to prove that their springs had been affected by

---

[2] This section was added by the Energy Policy Act of 1992, Pub. L. No. 102-486, § 2504(A)(1), 106 Stat. 2776, 3104 (1992).

Co-Op's mining. We review this question of statutory construction for correctness. Bennion v. Graham Resources, Inc., 849 P.2d 569, 570 (Utah 1993). The Board also "question[ed] whether" it had jurisdiction to enforce the federal statute in any event. Because we conclude that section 1309a did not apply, we need not address the question of the Board's authority to enforce it. See Williams v. Public Serv. Comm'n, 754 P.2d 41, 50 n.9 (Utah 1988) (court may ignore jurisdictional issue and reach the merits if the result is the same as a finding of no jurisdiction).

In applying section 1309a, the Board was faced with two questions: (1) whether the section authorizes the Board to require water resource identification as a preventive measure before any water supplies have been adversely affected and (2) whether Co-Op's existing mining operations have harmed the springs so that post-damage water replacement is required under the section.

As to the first issue, the plain language of section 1309a(a)(2) clearly supports the Board's conclusion that this portion of the statute does not authorize water resource identification as a preventive measure. That provision deals only with water replacement, not with water source identification. In addition, the language in that section referring to the impact of mining on water supplies is cast in the past tense. It applies only to any water supply "which has been affected." The common dictionary definition of "replace" is "to place again" or "put back in place," The American Heritage Dictionary of the English Language (1981). Thus, by using the word "replace," the section requires restoration rather than prevention. In short, there must be a showing that a water supply has been affected by underground coal mining operations for the statute to impose a requirement of replacement. Although Water Users advocate reading section 1309a to authorize preventive measures to protect water resources, the plain language of the statute does not lend itself to that construction, nor have Water Users identified any authority which persuasively supports that reading.[3]

---

[3] Water Users suggest in their reply brief that the legislative history of the Surface Mining Act supports this proposition, but the case they cite merely states that the Act is generally aimed at the cumulative and long-term effects of mining. (Citing National Wildlife Fed'n v. Lujan, 21 Envtl. L. Rep. (Envtl. L. Inst.) 20125, 20128 (D.D.C. 1990).) The only other authority offered on this point is a state case issued

(Footnote continued on the next page.)

With regard to the second issue, the evidence also justifies the Board's refusal to require water replacement as a remedy for past damage. During the proceedings, Water Users asserted that Co-Op's mining has contaminated and reduced the flow of water from the springs, which they claimed are hydrologically connected to the mine. At the hearing the Board received evidence from Water Users supporting their theory of an interconnected water system joining the permit area and the springs, and from Co-Op and the Division supporting the contrary theory that the springs and the permit area are in separate water systems. The Board found that there was no connection, and that Water Users had failed to prove that Co-Op has in fact damaged the springs. On this appeal, Water Users do not argue that the Board's factual finding is not supported by sufficient evidence. Given Water Users' failure to establish that water sources "have been affected" by "underground coal mining operations," the Board correctly concluded that section 1309a does not apply.

III

The second issue we review concerns the propriety of the Board's making findings of fact and conclusions of law related to the Blind Canyon seam when the issue before the Board was whether to permit mining in the Tank seam. At the beginning of the hearing on Water Users' petition, the Board considered what evidence it would allow. The Board ruled that any evidence presented must be relevant to the proposed Tank seam operation, although evidence with regard to Co-Op's existing mining activities--e.g., those in the Blind Canyon seam--could be offered as background or foundation. During the hearing Water Users introduced a broad range of evidence about the geology and hydrology of the permit and spring area, including evidence relating to the Blind Canyon seam. Water Users argued that this evidence was relevant to the effect of mining the Tank seam for several reasons, all of which in some way relied on the theory that the Blind Canyon seam and the springs were part of a single connected water system. Despite multiple objections by Co-Op and the Division, none of Water Users' offered evidence was excluded as irrelevant. After Water Users concluded their evidentiary

---

[3] (Footnote continued.)
before the enactment of section 1309a which was decided under a state scheme that expressly gave mine operators the option to provide replacement water rather than preventing harm to water sources, all in the context of a specific mining operation which was expected to damage at least some water resources. See Citizens Organized Against Longwalling v. Division of Reclamation, 535 N.E.2d 687, 695-96, 699 (Ohio Ct. App. 1987).

case, Co-Op and the Division responded with evidence showing that the springs and the coal seams were in fact in separate water systems and that as a result neither the past nor the proposed future mining activities could affect the springs.

Against this background, Water Users challenge the Blind Canyon findings on the ground that they exceed the Board's jurisdiction, violated their right to due process, and are arbitrary and capricious. We first discuss the jurisdictional argument: Water Users assert that the Board exceeded its jurisdiction when it made the Blind Canyon findings and conclusions, reasoning that because administrative agencies have only the jurisdiction conferred by statute, and because the statutes indicate that the scope of a Board hearing is set by the hearing notice, any issue not included in the notice is beyond the Board's jurisdiction. They urge that because the hearing notice referred only to the Tank seam and because the Board ruled that the scope of the hearing would be limited to the Tank seam, the Board lacked power to make the contested Blind Canyon findings and conclusions.

The jurisdictional argument is without merit. The requirement of notice under the argument Water Users assert goes to jurisdiction over the parties, not over the subject matter. 2 Am. Jur. 2d Administrative Law § 288 (1994) (because notice goes to personal rather than subject matter jurisdiction, it may be waived). Subject matter jurisdiction, on the other hand, goes to the competence of a body to resolve a certain dispute. See Salt Lake City v. Ohms, 881 P.2d 844, 852 (Utah 1994) ("Subject matter jurisdiction is the authority and competency of the court to decide the case." (internal quotation marks omitted)). It is clear that in ruling on the ultimate issue of the permit revision for the Tank seam, the Board had subject matter jurisdiction. See Utah Code Ann. § 40-10-2 (1993 replacement) (Board intended to have jurisdiction over coal mining regulation under Surface Mining Act); id. § 40-10-6(4) (granting Board authority over coal mining permit approval). If the contested findings were in any way relevant to the issues before the Board, they were within the Board's authority to make. As the discussion below illustrates, the findings and conclusions were relevant to the Board's rulings on the ultimate issues.

Water Users' claim that the challenged findings harm them is more accurately expressed by their due process challenge. At root, this complaint is that because they did not expect the Board to make findings and conclusions about the Blind Canyon seam (the scope of the hearing having been limited to the Tank seam by notice and ruling), they effectively will be foreclosed from opposing the renewal of the Blind Canyon permit without ever

having an adequate opportunity to litigate those issues. In other words, they were not given adequate notice of or an adequate hearing on Blind Canyon seam issues and therefore were deprived of due process by the issuance of findings on those issues.

The record does not support this claim. The arguments presented by Water Users at the hearing demonstrate that Water Users considered evidence relating to the Blind Canyon seam to be relevant to the ultimate issue of mining in the Tank seam. For example, Water Users urged the Board not to limit its consideration to "those aspects of the revision that are new." Although Water Users later argued to the Board that the Blind Canyon evidence was presented only to provide context and background for the Tank seam evidence, a review of some of the arguments they presented at the original hearing shows otherwise. In the course of the hearing, Water Users adduced evidence in support of the arguments that (1) water traveling through faults and cracks would come from above the Tank seam, pick up contaminants in the Tank seam, and proceed down through the Blind Canyon seam and into the springs; (2) water pumped up from the Blind Canyon seam for use in Tank seam mining would either be taken out of the mine with coal or carry contaminants with it back down to the Blind Canyon seam; (3) the permit revision application and the Division's evaluation of the application failed to satisfy statutory and regulatory requirements because they did not recognize and address damage already caused to the springs by mining; and (4) applicable federal law requires the provision of replacement water to ameliorate the damage done to the springs.[4]

---

[4] Water Users also raised two other major arguments: (1) that granting the permit would extend the life of the overall mining operation and therefore extend the duration of the harm caused by the existing mining operations, and (2) that the construction of a vehicle ramp from the Blind Canyon seam up to the Tank seam would result in the transfer of contaminants from the upper to the lower seam (and from the lower seam to the springs). The first argument ultimately lacks substantial relevance because, as the Board observed in its findings, denial of the permit revision would not end existing mining operations. The second argument was largely disposed of during the hearing, when it was established that no vehicle access between the levels was in fact planned. We note that even though the Board disposed of these arguments on other grounds, the Blind Canyon findings still serve to buttress the Board's rejection of them.

These arguments are directly relevant to the ultimate issue: The first two arguments claim that mining operations in the Tank seam will cause direct harm to the springs, while the second two offer indirect reasons why the Tank seam permit revision should not be approved or should be modified before approval. In turn, the validity of these objections to the permit revision depends on conclusions about the nature of the Blind Canyon seam--what relationship there is between the Tank and the Blind Canyon seams and whether a hydrologic link exists between the Blind Canyon seam and the springs. Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda. Furthermore, Water Users have adopted an argument before this Court which makes Blind Canyon seam conditions relevant: In support of their request for replacement water, Water Users renew to this Court the claim that pumping water from the Blind Canyon seam to the Tank seam for mining purposes will adversely affect the springs. Since that result follows only if water in the Blind Canyon seam eventually makes its way to the springs, that assertion alone would make the hydrology of the Blind Canyon seam and its relationship to the springs relevant.

In sum, Water Users presented arguments and evidence in the Tank permit revision proceedings that related to Blind Canyon seam conditions. The Board considered all the evidence presented and ruled on two ultimate issues: whether to allow Tank seam mining at all and whether to require Co-Op either to provide replacement water to remedy the claimed harm to the springs or to identify replacement water sources.[5] That the Board might have disposed of these ultimate issues on a narrower set of facts does not make it improper or unfair to include additional or alternative findings that respond to the bulk of the parties' argument and evidence and that give additional support for its decision. Water Users' right to notice and a fair hearing was not violated.

Water Users' claim that the Board acted arbitrarily and capriciously in using evidence relating to the Blind Canyon seam in making its findings and conclusions depends upon the irrelevance of the evidence to the issue to be decided. Because

---

[5] Whatever the effect of the contested findings and conclusions may be on Co-Op's pending permit renewal application, the Board did not purport to resolve the renewal issue in its order.

we have concluded that the evidence was relevant, that claim also fails.

Affirmed.

Chief Justice Zimmerman, Justice Howe, Justice Durham, and Justice Russon concur in Associate Chief Justice Stewart's opinion.

File

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

January 14, 1997

Carl E. Kingston
3212 South State Street
Salt Lake City, UT 84115

F. Mark Hansen
624 North 300 West, Suite 200
Salt Lake City, UT 84103

J. Craig Smith
David B. Hartvigsen
NIELSON & SENIOR
60 East South Temple, Suite 1100
Salt Lake City, UT 84111

Jeffrey W. Appel
Benjamin T. Wilson
APPEL & WARLAUMONT
9 Exchange Place, Suite 1100
Salt Lake City, UT 84111

Re: Bear Canyon Mine Informal Conference

Gentlemen:

I am in receipt of a Motion to Summarily Deny Water Users' Objections to Co-op's Permit Renewal submitted by Mr. Kingston and Mr. Hansen on behalf of Co-op Mining Company. Co-op argues that the recent decision of the Utah Supreme Court in Castle Valley Special Service District, et al v. Utah Board of Oil, Gas and Mining collaterally estops the Water Users from objecting to Co-op's permit renewal.

The Division is conducting this informal conference on remand from the Board of Oil, Gas and Mining upon a Board finding that the Water Users' objection to the permit renewal was timely filed, and that the Water Users are entitled to an informal conference prior to the entry of a final Division order approving or denying the renewal. The Division has collected two days of evidence and testimony presented by Water Users in support of their objection, and has heard testimony and argument from all parties regarding the standards of Division review and the respective burdens of the parties. Co-op made an oral motion to dismiss the objection of the Water Users at the close of their evidence and testimony on the grounds that the Water Users had failed to meet their burden of proof.

There appears to be no dispute that in determining whether to approve or deny a permit renewal, the burden of proof lies with the opponents of renewal (R645-303-233.200). The Division understands the Water Users allege that their current objections are based upon evidence which the Water Users assert to be new, and which was

therefore allegedly not considered in the Division's initial determinations to issue the permit and renew it, and on new analyses and interpretations of factual information already in the record. The Division also understands that Co-op denies that the Water Users have presented anything new.

In the interest of hearing all the relevant evidence, the Division has declined to rule on Co-op's motion to dismiss the Water Users objections for failure to meet their burden at this point in the proceedings, and has instead taken that motion under advisement. Declining to rule on dispositive motions now will not prejudice any party to these informal conference proceedings for the reason that any further proceedings on Co-op's five-year permit renewal will be de novo. For these reasons, the Division declines to rule now on Co-op's Motion for Summary Denial, but will take the Motion under advisement and will consider the arguments made therein in its administrative determinations.

The Division understands that the Water Users have presented all the evidence and testimony they wish to, except in rebuttal to whatever evidence or testimony may be presented by Co-op. The ball is now in Co-op's court. If Co-op wishes to present any evidence, testimony or argument to the Division in these informal conference proceedings, it should so indicate by no later than the close of business Wednesday, January 22, 1997. If Co-op has not submitted a request for an opportunity to present additional information to the Division by that time, these informal conference proceedings will be closed and the Division will render its decision based on the evidence, testimony and argument now in the record. If Co-op requests the opportunity to present additional information by January 22, a continuation of this informal conference will be scheduled as early in February as the parties' schedules will allow for that purpose.

Very truly yours,

James W. Carter
Director

dr

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL FOR THE BEAR CANYON MINE, CO-OP MINING COMPANY, EMERY COUNTY, UTAH

NOTICE OF CONTINUANCE OF INFORMAL CONFERENCE

CAUSE NO. ACT/015/025

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the informal conference conducted by the Division of Oil, Gas and Mining ("Division") on the Bear Canyon Mine has been continued to Friday, February 28, 1997, beginning at 9:30 a.m., at the Emery County Courthouse, Commission Chambers, 95 East Main Street, Castle Dale, Utah.

The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and Utah Admin. R. 645-300-112 and R. 645-300-123.

Objections to Co-Op Mining Company's five-year permit renewal for the Bear Canyon Mine were received, and an informal conference will be conducted. Written comments or oral statements and any relevant information pertaining to this permit renewal from any party to the conference will be heard in the morning and a site visit will be held in the afternoon.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Vicki Bailey at 538-5304, at least three working days prior to the hearing date.

DATED this 10th day of February, 1997.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

James W. Carter, Director

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing NOTICE OF CONTINUANCE OF INFORMAL CONFERENCE for Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, on the 11th day of February, 1997 the following:

Wendell Owen
Co-Op Mining Company
P. O. Box 1245
Huntington, Utah 84528

Jeffrey W. Appel
Appel & Warlaumont, L.C.
1100 Boston Building
9 Exchange Place
Salt Lake City, Utah 84111

J, Craig Smith
David B. Hartvigsen
Nielsen & Senior, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

Carl E. Kingston
3212 South State Street
Salt Lake City, Utah 84115

F. Mark Hansen
624 North 300 West, Suite 200
Salt Lake City, Utah 84103

Victoria A. Bailey

First-Mail, Postage Prepaid to:

CHARLES REYNOLDS
CO OP MINING CO
P O BOX 1245
HUNTINGTON UT 84528

ELDON KINGSTON
MOUNTAIN COIN MACHINE DIST
3753 S STATE ST
SALT LAKE CITY UT 84115

JAMES FULTON CHIEF
DENVER FIELD DIV
OFFICE OF SURFACE MINING R & E
1999 BROADWAY STE 3320
DENVER CO 80202-5733

MARK BAILEY AREA MNGR
SAN RAFEL/PRICE RVR RSRCE AREA
BUREAU OF LAND MANAGEMENT
125 S 6 W
PRICE UT 84501

BOB HENRY
MINING LAW & SOLID MNRLS
BUREAU OF LAND MNGMNT
P O BOX 45155
SALT LAKE CITY UT 84145-0155

MARK PAGE RGNL ENGR
UT DIV OF WATER RIGHTS
SOUTHEASTERN REGIONAL OFF
453 S CARBON AVE
P O BOX 718
PRICE UT 84501-0718

DAVE ARIOTTI DST ENGR
SOUTHEASTERN UTAH HEALTH DEPT
128 S 100 E
P O BOX 800
PRICE UT 84501

BILL BATES HABITAT MNGR
455 W RAILROAD AVE
PRICE UT 84501

GARY L ROEDER DIST CON
NTRL RESRS SOIL CNSV SERV
350 N 400 E
PRICE UT 84501

JOSEPH JENKINS EX DIR
DEPT OF COMM & ECON DEV

BUILDING MAIL

BRYANT ANDERSON
EMERY CNTY PLNNG & ZNG
P O BOX 297
CASTLE DALE UT 84513

BILL HOWELL EX DIR
SOUTHEASTERN UTAH ASSOC OF LOCAL GVRNMNTS
P O BOX 1106
PRICE UT 845015

JANETTE S KAISER FRST SUP
U S FOREST SERV
MANTI LA SAL NTNL FRST
599 W PRICE RVR RD
PRICE UT 84501

ROBERT D WILLIAMS ASST FLD SUP
U S FISH & WILDLIFE SERV ECO SERV
LINCOLN PLAZA
145 E 1300 S STE 404
SALT LAKE CITY UT 84115

ROBERT MORGAN STATE ENGR
DIV OF WATER RIGHTS
DEPT OF NATURAL RESOURCES

CAPITOL MAIL

JOHN KIMBALL DIR
DEPT OF NATURAL RESOURCES
DIV OF WILDLIFE RESOURCES

CAPITOL MAIL

MAX J EVANS DIR
UTAH DIV OF STATE HISTORY

CAPITOL MAIL

DAVID T TERRY DIR
SCHOOL & INSTNL TRUST LNDS

CAPITOL MAIL

RONALD P PARKIN STATE MN INSPC
INDUSTRIAL COMM OF UT
COLLEGE OF EASTERN UT
451 E 400 N
PRICE UT 84501

UTAH MINING ASSC
KEARNS BLDG
136 S MAIN STE 825
SALT LAKE CITY UT 84101

CAROLYN B WRIGHT RSCH ANLST
OFFICE OF PLANNING & BUDGET
STATE PLANNING COORD OFF

CAPITOL MAIL

RANDOLPH GAINER ENVR CHR
MAXIM TECHNOLOGIES INC
1127 W 2320 S STE B
SALT LAKE CITY UT 84119

MIKE SCHWINN DST ENGR
U S ARMY CORPS OF ENGINEERS
1403 S 600 W
BOUNTIFUL UT 84010

WILLIAM P YELLOWTAIL JR RGNL ADM
ENVIR PROTECTION AGENCY
DENVER PL STE 500
999 18TH ST
DENVER CO 80202-2405

TED STEWART EX DIR
DEPARTMENT OF NATURAL RESOURCES

BUILDING MAIL

DAVE LAURISKI CHRMN
739 E 2900 S
BOX 7
PRICE UT 84501

JOHN W ANDREWS ATTY
SCHOOL & INSTUTIONAL TRUST LANDS

BUILDING MAIL

DUANE K JENSEN PRES
BOARD OF DIRECTORS
HUNTINGTON CLEVELAND IRRIG CO
BOX 395
CLEVELAND UT 84518

DARREL V LEAMASTER PE
DISTRICT MANAGER
CASTLE VALLEY SPECIAL SERV DST
P O BOX 877
CASTLE DALE UT 84513

MENCO COPINGA PRES
NORTH EMERY WATER USERS ASSOC
BOX 129
CLEVELAND UT 84518

SHERREL WARD
BOARD OF DIRECTORS
HUNTINGTON CLEVELAND IRR CO
BOX 395
CLEVELAND UT 84518

VARDEN WILLSON SEC
HUNTINGTON CLEVELAND IRR CO
55 N MAIN
HUNTINGTON UT 84528

JAY MARK HUMPHREY
EMERY WATER CONSERVANCY DIST
P O BOX 998
CASTLE DALE UT 84513

File

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

April 22, 1997

Jeffrey W. Appel
Appel & Warlaumont, L.C.
1100 Boston Building
9 Exchange Place
Salt Lake City, Utah 84111

J. Craig Smith
Nielsen & Senior, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

F. Mark Hansen
624 North 300 West, Suite 200
Salt Lake City, Utah 84103

Re: Bear Canyon Mine, Cause No. ACT/015/025

Gentlemen:

I am in a receipt of a letter dated April 16, 1997 from Jeff Appel requesting an extension of time to submit closing arguments based on a relatively late availability of transcripts from our last informal conference. Accordingly, the time to file closing arguments in this matter is extended to the close of business May 8, 1997.

Very truly yours,

James W. Carter
Director

ls
p:appel 1

Bear Canyon ACT/015/025

LAW OFFICES OF
APPEL & WARLAUMONT, L.C.
1100 BOSTON BUILDING
9 EXCHANGE PLACE
SALT LAKE CITY, UTAH 84111
www.aw-law.com

JEFFREY W. APPEL, L.C.
JAMES L. WARLAUMONT, L.C.
BENJAMIN T. WILSON
JAMES R. WILSON*

* Also Admitted to Practice in:
California
Colorado

TELEPHONE
(801) 532-1252
FACSIMILE
(801) 532-1278
EMAIL
Appel@aw-law.com

April 16, 1997

James W. Carter, Director
DEPARTMENT OF OIL, GAS AND MINING
3 Triad Center, Suite 475
355 West North Temple
Salt Lake City, Utah 84180
Fax No.: (801) 359-3940

RE: Request of Extension of Time to file Closing Argument Memorandum

Dear Mr. Carter:

When we received your letter dated March 25, 1997, we anticipated we would be able to acquire a copy of the transcript in a relatively short period of time. Unfortunately, we were unable to acquire the transcript until April 11, 1997. On that basis, we request that all parties be granted an extension to the close of business on May 8, 1997 to prepare and file this response.

I thank you for your consideration of this request and request a confirmation thereof.

Sincerely,

APPEL & WARLAUMONT

Jeffrey W. Appel

JWA/lm

cc: Darrel Leamaster
F. Mark Hansen, Esq.
Craig Smith, Esq.

g:\jwa\l-carter.416

CO-OP MINING COMPANY

P.O. Box 1245
Huntington, Utah 84528

Office (801) 687-2450
FAX (801) 687-5238
Coal Sales (801) 687-5777

March 27, 1997

Coal Program
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Copy Aaron, Pam

To Whom It May Concern,

Re: ~~Federal Lease U-024316~~ Application for mining the Tank Seam, Bear Canyon Mine, ~~ACT/015/025~~ Emery County, Utah

#2

(fax Pete: PFO)

Enclosed is an application for a permit revision to include Federal Lease U-024316 in the permit area for mining the Tank Seam. Included in this submittal are three copies of proposed changes to the text, which have been submitted in redline/strikeout format, and three copies of proposed modifications to the Plates. Pages and Plates have been marked "DRAFT" to distinguish them from previously approved pages. Also included is 1 copy of the pages as they would appear in the approved application. Plates and pages which have been modified are listed on the attached DOGM form C2.

Also included are four (4) copies of the entire Mining and Reclamation Plan, which have been updated with proposed modifications. These copies are included for the following Federal agencies:

OSM - 1 copy
BLM - 1 copy
USFS - 2 copies

An additional copy has been placed at the Emery County Courthouse for public inspection.

A summary of information pertaining to the application and the locations of this information is also included to aid in the review process.

Also enclosed is a proposed "Public Notice" for publication of the permit revision. Please review and notify Charles Reynolds if there are any necessary changes to the notice by April 2, 1997. Co-Op intends to begin the public notice period beginning the following week. Notice will be given for four consecutive weeks in the Emery County Progress and the Salt Lake Tribune.

Mining in the Tank Seam is currently approaching the Federal Lease, and Co-Op wishes to work with the Division and other agencies involved in order to expedite the review process. Please notify Charles Reynolds or myself if there are any additional measures which can be taken in order to accomplish this.

If you have any questions, please call Charles Reynolds or myself at (801) 687-2450.

Thank You,

Wendell Owen

Wendell Owen,
Resident Agent

Enclosure (s)

Form DOGM - C1 (Last Revised March 26, 1997) File Folder # 3

APPLICATION FOR PERMIT PROCESSING

Permit Change ☒	New Permit ☐	Renewal ☐	Transfer ☐	Exploration ☐	Bond Release ☐	Permit Number: ACT/015/025
Title of Proposal: Federal Lease U-024316 Addition for mining the Tank Seam.						Mine: BEAR CANYON
						Permittee: CO-OP MINING

Description, include reason for application and timing required to implement: Co-Op is approaching current permit boundary in the Tank Seam. Additional reserves exist within the Lease, which must be recovered from within the Tank Seam Mine prior to retreating. Time required = 3 to 4 mo. est.

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.*

☒ Yes	☐ No	1. Change in the size of the Permit Area? 320 acres Disturbed Area? ____ acres ☒ increase ☐ decrease.
☐ Yes	☒ No	2. Is the application submitted as a result of a Division Order? DO #
☐ Yes	☒ No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes	☒ No	4. Does application include operations in hydrologic basins other than as currently approved?
☐ Yes	☒ No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
☒ Yes	☐ No	6. Does the application require or include public notice/publication?
☒ Yes	☐ No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes	☒ No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes	☒ No	9. Is the application submitted as a result of a Violation? NOV #
☐ Yes	☒ No	10. Is the application submitted as a result of other laws or regulations or policies? Explain:
☐ Yes	☒ No	11. Does the application affect the surface landowner or change the post mining land use?
☒ Yes	☐ No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
☒ Yes	☐ No	13. Does the application require or include collection and reporting of any baseline information?
☐ Yes	☒ No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes	☒ No	15. Does application require or include soil removal, storage or placement?
☐ Yes	☒ No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes	☒ No	17. Does the application require or include construction, modification, or removal of surface facilities?
☒ Yes	☐ No	18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes	☐ No	19. Does the application require or include certified designs, maps, or calculations?
☒ Yes	☐ No	20. Does the application require or include subsidence control or monitoring?
☐ Yes	☒ No	21. Have reclamation costs for bonding been provided for?
☒ Yes	☒ No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes	☒ No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

☒ **Attach 3 complete copies of the application.**

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (R645-301-123)

Wendell Owen, Res. agent 3/27/97
Signed - Name - Position - Date

Subscribed and sworn to before me this 27 day of March, 19 97.

Lanna Stone
Notary Public

My Commission Expires: June 18, 1997
Attest: STATE OF) ss:
COUNTY OF)

Received by Oil, Gas & Mining
RECEIVED
MAR 31 1997
DIV. OF OIL, GAS & MIN
ASSIGNED TRACKING NUMBER

Application for Permit Processing
Detailed Schedule of Changes to the MRP

Title of Application:	Permit Number: ACT/015/025
Federal Lease U-024316 Addition for mining the Tank Seam.	Mine: BEAR CANYON
	Permittee: CO-OP MINING

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 1-2, 1-6, 1-8, 1-10, 1-11, 2-9, 2-10; General housekeeping changes.
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 1-7, 1-9; Page reformatting (No changes to text).
☐ ADD	☐ REPLACE	☒ REMOVE	pp. 1-12, 2-15; Text condensed to previous pages.
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 2-ii, 2-2, 2-3; Table of contents, ownership info. and permit area description updated.
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 2-12, 2-13, 2-14; Table 2-2 updated, pages reformatted, housekeeping changes.
☐ ADD	☒ REPLACE	☐ REMOVE	Plates 2-1, 2-2, 2-3, 3-3; Permit Area updated on maps.
☐ ADD	☒ REPLACE	☐ REMOVE	3-27; Coal reserve estimates updated.
☐ ADD	☒ REPLACE	☐ REMOVE	3-28, 3-34, 3-35, 3-36, 3A-4, 3A-10; General housekeeping changes.
☐ ADD	☒ REPLACE	☐ REMOVE	3C-4; Estimated subsidence described.
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 3-4C; Proposed mining sequence and timing updated to include Lease U-024316.
☐ ADD	☒ REPLACE	☐ REMOVE	pg. 4-3, 4-4; Page reformatted, Federal coal lease numbers added.
☐ ADD	☒ REPLACE	☐ REMOVE	pg. 6-17, 6-18; General housekeeping changes, page reformatting.
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, 6-7, 6-8, 6-9, 6-10, 6-11, 6-12; Permit Area/Geology updated
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 7-ii, 7-iv, 7-v; Table of Contents Updated. [1]
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 7-1 thru 7-35; Housekeeping, discussion of groundwater hydrology updated. [2 3]
☐ ADD	☐ REPLACE	☒ REMOVE	pp. 7-36 thru 7-43; Pages to be eliminated due to page reformatting. [1]
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 7-44, 7-48, 7-50, 7-52 thru 7-57; General housekeeping changes.
☐ ADD	☐ REPLACE	☒ REMOVE	pp. 7A-16; Figure information shown on Chapter 6 Geology plates.
☒ ADD	☐ REPLACE	☐ REMOVE	App. 7-J Attachment; Probable Hydrologic Consequences for U-024316 Added.
☐ ADD	☒ REPLACE	☐ REMOVE	pp. 7M-10, 7M-16 thru 7M-19, 7M-27; Baseline Water Quality Data Updated.
☒ ADD	☐ REPLACE	☐ REMOVE	pp. 7M-27A, 7M-27B, 10D-17A; Additional monitored locations added, 1996 raptor survey.
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 7-4; Water Monitoring, permit boundary updated for U-024316.
☐ ADD	☒ REPLACE	☐ REMOVE	pg. 10-14, Plates 3-3, 9-1, 10-1; 1996 raptor survey updated, permit boundary changed.

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

[1] Due to page reformatting, page numbers of the pages with redline/strikeout format do not correspond with page numbering of the pages as they will appear when approved. See copy of pages with redline/strikeout removed.

[2] Figures 7.1-1 through 7.1-5 removed from text. (Information duplicated. Updated and current figures are shown in Appendix 7-N.)

[3] Changes include referencing App. 7-J & 7-N (Much of prev. material duplicated or generated in 1985). Baseline Info. Updated.

File

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 25, 1997

Jeffrey W. Appel
Appel & Warlaumont, L.C.
1100 Boston Building
9 Exchange Place
Salt Lake City, Utah 84111

J. Craig Smith
David B. Hartvigsen
Nielsen & Senior, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

F. Mark Hansen
624 North 300 West, Suite 200
Salt Lake City, Utah 84103

Re: Closing Statements and Arguments for Bear Canyon Mine, Co-op Mining Company, Cause No. ACT/015/025, Emery County, Utah

Gentlemen:

Now that the transcript of the proceedings from February 28th is available, I would request that you each review that transcript and prepare, in written form, your closing statements and argument in this matter. I would ask that those documents be submitted simultaneously before the close of business, April 23, 1997. Those closing statements and arguments should include all information and legal argument that you would like me to consider, as I will close this proceeding on April 23rd as well.

In preparing those documents, I would ask that you address the following questions, in addition to whatever legal or factual issues you deem appropriate:

1. The performance standards at R645-301-750 provide:

> All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area . . . .

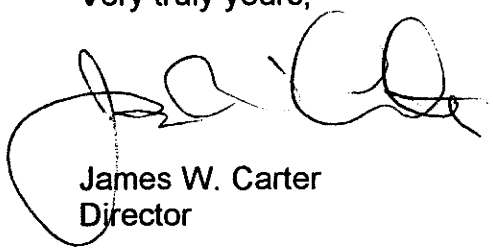
It has been argued during the course of these proceedings that a demonstration that coal mining has any hydrologic effect is sufficient to require the operator to either amend its plan of operations or make

reparations for damage caused by that effect. Please provide me with citations and arguments to either support or refute that position.

2 Although water replacement rules have not yet been promulgated by the Board of Oil, Gas and Mining under the recently enacted amendments to the Utah Coal Regulatory Program, it has been previously argued that the Division may order replacement as a remedy upon a showing of contamination, diminution or interruption of an underground or surface source of water in the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purposes. (R645-301-727) I have two questions with regard to this issue: (1) Is an order of water replacement a remedy currently available to the Division as an administrative matter; and (2) Is the requirement to replace one of strict liability in the event of a finding of <u>any</u> contamination, diminution or interruption, or does the rule of de minimus non curat lex apply?

I'm sure there will be other interesting legal and factual arguments you will want to advance and I look forward to reviewing them. Thank you in advance for your cooperation in bringing this matter to a timely conclusion.

Very truly yours,



James W. Carter
Director

dr
p:bearcan.l

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 17, 1997

TO: File

THRU: Mary Ann Wright, Associate Director of Mining

FROM: Pamela Grubaugh-Littig, Permit Supervisor

RE: Conclusions of Order dated May 20, 1991, Bear Canyon Mine, Co-Op Mining Company, ACT/015/025, Folder #3, Emery County, Utah

The Order by the Division dated May 20, 1991 (attached) was the result of the informal conference for the November 2, 1990 permit renewal for the Bear Canyon Mine. This memo outlines how the requirements for this "Order" have been met (Items #22 through #29).

Item #22 - This requirement is an ongoing requirement that "operations will be in accordance with the statute and rules, and subject to orders or other actions of the Division governing the operations under this permit."

Item #23 - This item of the Order denied the lease extension.

Item #24 - Additional drilling was done by Co-Op Mining Company and the Probable Hydrologic Consequence (PHC) was updated and approved by the Division on March 9, 1995. The Gentry Mountain Cumulative Hydrologic Impact Assessment (CHIA) was updated by the Division in March 1994. The March 1995 PHC approval did not require a change of the March 1994 CHIA update. This requirement has been met.

Item #25 - This requirement was included prior to the update and approval of the PHC and the Division update of CHIA. This requirement is concluded.

Item #26 - The updated PHC (Appendix 7J and 7N) was approved on March 9, 1995. No changes were required to the CHIA updated in March 1994. This requirement has been met.

Item #27 - This requirement should remain. "Drainage or pumping of in-mine

water to the old mine workings north of the Big Bear and Birch Springs will be controlled and monitored as stipulated by the Division, with revisions of that procedure only as directed by the Division and with the prior approval of the Division."

Item #28 - All of the requirements have been met, except item #27 should be included as a stipulation to the permit.

Items #29 - Through the approval of the updated PHC (March 9, 1995) and the Division update of the CHIA in March 1994, Co-Op Mining Company demonstrated that said operations have been designed to prevent material damage to the hydrologic balance outside of the permit area, in accordance with UCA 40-10-10(2)(c) and UAR R645-300-133.400.

In conclusion, this Order can be concluded with Item #27 stipulated to the permit.

ATTACHMENT
cc: Daron Haddock (w/o attachment)
Joe Helfrich (w/o attachment)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

---oo0oo---

IN THE MATTER OF THE PERMIT RENEWAL FOR THE CO-OP MINING COMPANY'S BEAR CANYON MINE, EMERY COUNTY, UTAH	:	ORDER INFORMAL HEARING CAUSE NO. ACT/015/025

---oo0oo---

On February 5, 1991, the Division held an Informal Hearing regarding the above-captioned matter in Castle Dale, Utah. The hearing was transcribed. The following individuals were present and participated in the informal hearing.

Presiding:

Dianne R. Nielson, Director
Division of Oil, Gas and Mining

For the Protestants:

Darrel Leamaster, District Manager
Castle Valley Special Service District

Menco Copinga, President
North Emery Water Users Association

Jeffrey Appel, Esq.
Haley and Stolebarger
Attorney for North Emery Water
Users Association

Mrs. Varden Willson
(on behalf of Varden Willson)
Huntington-Cleveland Irrigation
Company

Scott Johansen, Esq.
Attorney for Huntington City

S. Bryce Montgomery
Consultant for Castle Valley Special
Service District

For the Respondent:	Kimberley C. Mangum Consultant for Co-op Mining Company
	Bill Stoddard Co-op Mining Company
	Carl E. Kingston, Esq. Attorney for Company
	Wendell Owen Co-op Mining Company
For the Division of Oil, Gas and Mining:	Thomas A. Mitchell, Esq. Assistant Attorney General
	Pamela Grubaugh-Littig Permit Supervisor
	Thomas Munson Reclamation Hydrologist
Other Appearances:	Grant Wilson Huntington City

In accordance with arrangements made by the Protestants following the hearing, Jeffrey W. Appel was designated the representative of all the Protestants for the purposes of notice and response regarding this matter.

NOW THEREFORE, the Division of Oil, Gas and Mining (Division) having fully considered the protests and responses of the parties, as filed prior to and as part of the hearing, and the supplements to the record, as well as the actions of the Division as represented in Division records, now makes and enters its Order as follows:

FINDINGS OF FACT

1. The Informal Hearing was properly scheduled and noticed

in accordance with the Utah Administrative Procedures Act (Utah Code Ann. § 63-46b-1 et seq.) and the Utah Coal Mining and Reclamation Act (Utah Code Ann. § 40-10-1 et seq.).

2. Additional extensions provided for the purpose of supplementing the record in the Informal Hearing were properly noticed and granted.

3. Inspection and enforcement records for the duration of mining operations at the Bear Canyon Mine indicate that Co-op Mining Company (Co-op) has been cited with Notices of Violation (NOV), Cessation Orders (CO), and Failure to Abate Cessation Orders (FTA CO). However, Co-op Mining Company has abated or is within the designated timeframes for abating enforcement actions. Co-op Mining Company has not established a pattern of willful and knowing violations. Co-op Mining Company is not subject to permit revocation or denial at this time.

4. Geologic and hydrologic evidence provided by the parties suggests that the potentiometric surface of the Blackhawk-Star Point aquifer is below the level of current mining in the Bear Canyon Mine.

5. The necessary information is available for evaluation of the hydrology within the existing Bear Canyon Mine workings.

6. There is no evidence that mining within the presently permitted coal seam in the Bear Canyon Mine will impact the potentiometric surface of the Blackhawk-Star Point aquifer. There is evidence that piping of water, as described below in Paragraph 7, may have influenced the quantity of flow from

outcroppings at or near Big Bear or Birch Springs in the recent past.

7. Within the Bear Canyon Mine, water has been piped from a seep at the north end of the mine workings to the mine entrance, where it discharged in accordance with the permit. However, in the past, excess flow in that line was pumped or allowed to flow into abandoned mine workings located at the south end of the mine, directly north of Big Bear Spring and Birch Spring. Co-op has replaced a portion of that pipe with larger diameter pipe to enable the line to better accommodate flow from the mine. Co-op has also installed a meter on the line which will measure any overflow into the abandoned workings. There is some evidence that this past diversion of flow into the old workings may have influenced the quantity of water seeping from outcrops above Big Bear and Birch Springs.

8. There is insufficient geologic and hydrologic evidence available to determine the impacts of mining, in the proposed Bear Canyon Lease Extension (Lease Extension) to the north of the existing Bear Canyon Mine, on the quantity and quality of water in Big Bear Spring and Birch Spring.

9. There is insufficient evidence to know the location of the potentiometric surface of the Blackhawk-Star Point aquifer to the north of the existing Bear Canyon Mine workings.

10. There are other mining operations on the northern extensions of the fracture and fault systems which may control surface water and groundwater flow from the springs below the

permit area. However, evidence to determine specific impacts of those operations on groundwater feeding these springs is inconclusive.

11. In order to evaluate the current probable hydrologic impact of mining adjacent to and in the proposed Lease Extension to the north of the currently permitted Bear Canyon Mine, additional monitoring wells must be drilled and sampled to evaluate the location, quantity, and quality of the Blackhawk-Star Point aquifer.

12. Sampling of Big Bear Spring and Birch Spring is necessary to evaluate the current probable hydrologic impact of mining adjacent to and in the proposed Lease Extension north of the presently permitted Bear Canyon Mine, as well as to provide complete monitoring data from existing operations in the Bear Canyon Mine. Sampling should include both quantity and quality of spring flow including sampling at times when the spring is not overflowing the lock box. This will necessitate establishing arrangements to allow Co-op Mining Company or a third party to unlock the box at regular intervals for sampling purposes.

13. Evidence concerning the increased sulfate content in Big Bear Spring does not indicate the cause of the increase.

14. Evidence of the impact of drought conditions over the last five years, as well as the impacts of earthquakes in the vicinity of the Bear Canyon Mine, have not been fully evaluated by the parties in terms of the potential effect on the past and current quantity of water from Big Bear and Birch Springs.

15. Technical information and arguments support the extension of geologic structures which may control groundwater flow north of and within the Bear Canyon Mine. However, the hydrologic evidence is conflicting and insufficient to support the "reasonable likelihood" of adverse impacts of mining on water quantity and quality at Big Bear and Birch Springs.

CONCLUSIONS OF LAW

EXISTING PERMIT AREA

16. Pursuant to Utah Admin. R. 614-300-154, as to those lands specifically designated as the permit area within the permittee's original permit application, and approved in accordance with R. 614-300-151, the permittee has a right of successive renewal.

17. The right to successive renewal is granted pursuant to Utah Code Ann. § 40-10-9(4)(a). The terms of this statutory right are included and made a part of R. 614-303-230.

18. Both by statute and by rule the burden of proof rests upon the opponent to permit renewal to demonstrate the specific exceptions set forth by statute and rule for denying permit renewal.

19. Protestants have set forth factual contentions to support their allegations that four of the five statutory exemptions to renewal are present. The Division concludes that protestants have failed to support these allegations.

NEW PERMIT AREA

20. Pursuant to Utah Code Ann. § 40-10-9(4)(b) an extension of a permit area as a portion of the application for renewal of a valid permit is subject to the full standards applicable to new applications under the statute. Pursuant to Utah Code Ann. § 40-10-11(1) the applicant for a permit, or revision of a permit, shall have the burden of establishing that his application is in compliance with all the requirements of the code.

21. The Division concludes that Co-op has not met its burden of proof with regard to demonstrating the probable hydrological impact of any extension beyond its present permit boundaries.

ORDER

22. The Permit for Co-op Mining Company's existing mining operation at the Bear Canyon Mine (ACT/015/025) is hereby renewed for a period of five years from the date of expiration of the prior permit. This permit renewal provides for operations of the Bear Canyon Mine to continue to the extent that those operations are conducted within the existing permit area and the disturbed areas as they existed under the prior permit. These operations will be in accordance with the statute and rules, and subject to orders or other actions of the Division governing the operations under this permit.

23. The proposed permit application to enter and mine an adjacent Federal Coal lease to the north of the existing mine

(Lease Extension) is denied.

24. No additional coal mining and reclamation operations at the Bear Canyon Mine beyond those currently approved in the permit will be considered for approval by the Division until the Probable Hydrologic Impact (PHC) analysis has been revised, based on additional drilling and monitoring of groundwater and surface water flow, quantity, and quality. This limitation in terms of mining and reclamation operations includes but is not limited to any mining in coal seams above or below the currently-approved mine workings within the permit area, as well as any mining outside the current permit area.

25. Any future proposal to mine beyond the existing permit area or in coal seams above and below the current workings will be treated as a request for permit revision, with the opportunity for public comment.

26. The requirements for additional drilling and monitoring of the surface and subsurface hydrology will be determined by the Division. At a minimum, this will include drilling and monitoring 3 wells, located within and adjacent to the current permit area, for the purpose of evaluating the hydrologic gradient and water quality. Drilling of monitoring wells will be the requirement of and at the expense of Co-op Mining Company. The existing monitoring program for Big Bear and Birch Springs will be revised to include water quantity and quality measurements from lock boxes. Data will be provided to the Division and the appropriate water user associations. Such

monitoring will be at the expense of Co-op Mining Company and may be conducted by Co-op or by a third party, as agreed upon by the Protestants and Co-op Mining Company, in order to ensure access to the lock boxes at the Big Bear and Birch Springs.

27. Drainage or pumping of in-mine water to the old mine working north of the Big Bear and Birch Springs will be controlled and monitored as stipulated by the Division, with revisions of that procedure only as directed by the Division and with the prior approval of the Division.

28. The requirements of this Order which are applicable to the present permit are included and made a part of the permit terms at issuance of the renewed permit for the Bear Canyon Mine.

29. Prior to any approval of coal mining and reclamation operations beyond the existing authorized operations, Co-op Mining Company must demonstrate and the Division must find that said operations have been designed to prevent material damage to the hydrologic balance outside of the permit area, in accordance with Utah Code Ann. § 40-10-10(2)(c) and Utah Admin. R. 614-300-133.400.

ORDERED and issued this 20th day of May, 1991.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

Dianne R. Nielson
Director

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing ORDER to be mailed first class, postage prepaid, this 20th day of May, 1991, to the following:

Mr. Darrel V. Leamaster
Castle Valley Special Service District
P.O. Box 877
Castle Dale, Utah 84513

Mr. Menco Copinga
North Emery Water Users Association
Box 418
Elmo, Utah 84521

Mr. Varden Willson
Huntington-Cleveland Irrigation Company
55 North Main
Huntington, Utah 84528

Mr. Carl Kingston, Esq.
53 West Angelo Avenue
P.O. Box 15809
Salt Lake City, Utah 84115

Mr. Scott Johansen, Esq.
Huntington City Attorney
P.O. Box 1099
Castle Dale, Utah 84513

Mr. Jeffrey Appel, Esq.
Haley & Stolebarger
10th Floor Walker Center
175 South Main
Salt Lake City, Utah 84111-1956

Lynda Jenson

015/025 #2

UDOGM HIGHWALL SURVEY
February 1997

MINE NAME Bear Canyon Mine

PERMIT NUMBER ACT/015/025

1. Identify each highwall used in connection with the mine and provide a description of its location and extent. (reference maps where highwall is shown)

Hiawatha Intake — ~30' Length
Hiawatha Belt — ~20' Length
Blind Canyon Intake — ~40' Length
Blind Canyon Belt — ~20' Length
Blind Canyon Fan — ~40' Length
Blind Canyon Fan — ~80' total Length
Tank Seam Highwall — ~140' total Length

Area shown on Plates 2-5, 2-4C and 2-4E. (Not Specifically identified)

2. Provide verification of highwall and adjacent cutslope creation dates. (At a minimum determine whether it was created before or after May 3, 1978.)

All highwalls created After May 3, 1978.

3. Provide a reference to the Mining and Reclamation Plan (MRP) which discusses the final reclamation and elimination or retention of the identified highwalls. If no reference exists, state "none".

Final Reclamation & High elimination is discussed in Section 3.6.4.2 (Pg. 3-72).

Please return to Daron Haddock by March 7, 1997

LAW OFFICES OF

F. MARK HANSEN, P.C.

624 NORTH 300 WEST, SUITE 200
SALT LAKE CITY, UTAH 84103
TELEPHONE: (801) 533-2700
FAX: (801) 533-2736

ADMITTED TO PRACTICE IN UTAH, ARIZONA, COLORADO AND NEVADA.

NEVADA OFFICE:
5675 S. VALLEY VIEW, #200
LAS VEGAS, NEVADA 89118
TELEPHONE: (702) 798-0125

November 29, 1996

James W. Carter
Utah Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suuite 350
Salt Lake City, Utah 84180-1203

Via facsimile
(801)359-3940

ACT/015/025

RE: *C.W. Mining Co. permit renewal — DOGM hearing on Water Users' protest*

#2

Dear Mr. Carter.

C.W. Mining Company would like to put on evidence before the informal conference is closed. I anticipate requiring about three hours, not including cross-examination. Please have someone from your office coordinate with me for available dates.

Sincerely,

Mark Hansen

F. Mark Hansen

2006-1.002

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---oo0oo---

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH.	:	DIVISION FINDINGS, CONCLUSIONS AND ORDER
	:	DOCKET NO. 95-025
	:	CAUSE NO. ACT/015/025

---oo0oo---

NATURE OF THE CASE

On October 12, 1995, the Castle Valley Special Service District, the North Emery Water Users Association and the Huntington-Cleveland Irrigation Company (collectively, the "Water Users") filed a Joint Objection to Renewal, Appeal, and Request for Hearing (the "Objection") with regard to the impending renewal of coal permit held by C.W. Mining Company, dba Co-Op Mining Company ("Co-op") for its Bear Canyon Mine. The renewal was granted by the Division of Oil, Gas and Mining (the "Division") on November 2, 1995. The Water Users appealed the Division's decision to the Board of Oil, Gas and Mining (the "Board"). This matter is now before the Division on remand from the Board pursuant to the Board's Order Granting Temporary Relief and Remanding for an Informal Conference, dated February 23, 1996 (the "Order").

The Division convened this Informal Conference on October 17, 1996, and it was continued through November 8, 1996 to February 28, 1997. Appearances for the parties were as follows:

For the Division:	James W. Carter, Director
For the Water Users:	Jeffrey W. Appel, Appel & Warlaumont J. Craig Smith, Nielsen & Senior
For Co-op:	F. Mark Hansen Carl E. Kingston

ISSUES RAISED

The question at hand is whether Co-op is entitled to renewal of its Bear Canyon Mine permit pursuant to the permit renewal provisions of the Utah coal regulatory program. Those requirements are found at R645-303-230, et. seq. The criteria for approval, set forth at R645-303-233.100 require the Division to approve permit renewal unless the Division makes one or more of the findings set forth there. The Water Users allege that Co-op is not entitled to renewal because two of the factors which would prevent renewal are present, 1) that the terms and conditions of the existing permit are not being satisfactorily met and, 2) that the present coal mining and reclamation operations are not in compliance with the environmental protection standards of the state program. The specifics of Water Users' allegations are set forth in their Joint Post-Informal Conference Memorandum and Closing Argument as follows:

1. The hydrologic information upon which the permit was originally issued is erroneous, and that the underlying permit is therefore defective and should not be renewed.

2. The mining activities are intercepting and re-diverting water that would otherwise provide flow to the Water Users' springs and are therefore not in compliance with the environmental protection standards of the Utah regulatory program.

3. The Probable Hydrologic Consequences document (the "PHC") makes false and inaccurate statements and lacks adequate baseline information to support the permit.

4. The Cumulative Hydrologic Impact Assessment document (the "CHIA") fails to adequately address the cumulative hydrologic impacts of mining because it does not include an assessment of the impacts of mining on water availability in the downstream service areas of the Water Users.

5. The CHIA is insufficient to determine whether the proposed operations have been designed to prevent material damage to the hydrologic balance outside the permit area.

6. Material damage to the hydrologic balance outside the permit area is occurring.

7. Mining operations at the Bear canyon mine have contaminated, diminished and/or interrupted state-appropriated water owned by the Water Users, entitling them to replacement.

Co-op's arguments are as follows:

1. The claims and assertions made by the Water Users in this proceeding are barred by the doctrine of collateral estoppel and the decision of the Utah Supreme Court in

Castle Valley Special Service District, et al v. Utah Board of Oil, Gas and Mining, et al filed on December 31, 1996.

2. The Water Users have not met the burden of proof to overcome Co-op's entitlement to permit renewal as set forth in R645-303-230 and UCA Sec. 40-10-9(4)(a).

3. That Co-op's permit and operations are in compliance with the requirements of the Utah coal regulatory program.

Based upon the evidence in the Division's files, the record of this Informal Conference and the testimony and argument received, the Division makes the following Findings of Fact, Conclusions of Law and Order:

BACKGROUND FINDINGS OF FACT

1. The core of this dispute is whether coal mining in the Tank and/or Blind Canyon Seams is adversely affecting, or will adversely affect, springs in the area which constitute major water supplies for the Water Users. The Division issued a permit to Co-op for the Bear Canyon Mine on October 30, 1985, which permit was renewed on May 20, 1991. Mining began in the Blind Canyon Seam. Before December of 1989, no significant water was encountered in or discharged from the Bear Canyon Mine. Water inflow was small and often insufficient to meet the operational needs of the mine. In 1991 Co-op first began discharging approximately 60 gallons per minute from the mine.

2. In 1993, Co-op applied for a permit revision to allow mining of the Tank Seam at the Bear Canyon Mine, which seam is located topographically and geologically above the Blind Canyon Seam. The application included Appendix J-7, "Probable Hydrologic Consequences of Mining at Bear Canyon Mine, Emery County, Utah," and Appendix 7-N, "Revised Hydrogeologic Evaluation of the Bear Canyon Mine Permit and Proposed Expansion Areas." The Water Users objected to the permit revision, and on December 9, 1993 the Division conducted an informal conference on the objection. On July 20, 1994 the Division issued a Technical Analysis which incorporated the finding in the Division's revised Cumulative Hydrologic Impact Assessment ("CHIA") for the Gentry Mountain area that:

> "The review of water source information, the graphical tracking of precipitation versus flow, the testing of the spring water and mine water quality for tritium dating, analysis of water quality chemical data using Stiff and Piper diagrams, and the known presence of three separate piezometric surfaces ... leads to a conclusion of no significant material damage to the Hydrologic Balance outside the permit area."

The Division then approved Co-op's permit revision.

3. The Water Users appealed the approved revision to the Board, which held a formal evidentiary hearing. The Water Users presented evidence and argued that mining of the Tank Seam would adversely affect the springs because the permit area and springs were within the same regional aquifer and were in hydrologic connection, and that Co-op's mining operation had intercepted the aquifer which supplied the springs. Co-op presented evidence to support its claim that mining the Tank seam would not adversely affect the springs because the permit area is hydrologically isolated from the aquifer feeding the springs.

4. On June 13, 1995, the Board affirmed the Division approval of the permit revision and rejected the Water Users' arguments, finding that the mined areas were hydrologically separate from the Water Users' springs and that the mining was not adversely affecting the springs. The Water Users appealed to the Utah Supreme Court, which in a December 31, 1996 Opinion affirmed the Board's Order.

5. On June 16, 1995, Co-op filed a permit renewal application for the Bear Canyon Mine. On October 12, 1995, the Water Users filed Objections to Permit Renewal and Request for Informal Conference. The Objections asserted that continued mining in the Tank and Blind canyon seams would adversely affect the Water User's springs. On November 2, 1995, the Division approved the permit renewal application, which approval was appealed to the Board. On February 23, 1996, the Board reversed the Division's renewal of the permit, and remanded the Water Users' Objections to the Division to conduct the requested Informal Conference. Co-op appeared during the Board's review of the Water Users' Objections and argued that the matter had been resolved by the previous proceedings and was therefore res judicata.

6. On remand, the Division convened this Informal Conference, directing that the parties introduce all new information and analyses of existing information which would provide a basis for revising or reversing the findings and conclusions the Division had made in support its June 20, 1994 determination that the mining was causing no material damage to the hydrologic balance outside the permit area. In addition, the Division solicited argument and evidence from the parties on the Water Users' assertion that the recently passed water replacement requirements of Utah Code Section 40-10-18(15) applied and that the Division should find that state appropriated water owned by the Water Users was being contaminated, diminished or interrupted.

GEOLOGIC AND HYDROLOGIC FINDINGS OF FACT

7. The Water Users argue that the water issuing from their springs passes through the area being mined on its way to the springs and is adversely affected by the mining activity, and that the mining has upset the recharge system which historically supplied their springs. Co-op argues, and the Board and Division have previously found, that the area which is being mined is effectively hydro logically isolated from the Water Users' springs.

8. Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all located in the Blackhawk formation, which extends laterally to the north and south of the permit area. The Blackhawk formation lies conformably on the Star Point formation, which also extends outside the permit area. The Star Point formation contains three sandstone layers -- the Spring Canyon, Storrs and Panther members from top to bottom -- which are separated by layers of Mancos shale 50 to 80 feet thick. The Mancos shale layers are understood to be laterally continuous within the permit area. The Blackhawk formation also contains many layers of shale as well as the coal seams. The strata in the permit and adjacent areas dip to the south at approximately five degrees. The Water Users' springs issue from the sandstone members of the Star point formation, both topographically and geologically below the coal seams being mined in the Blackhawk formation, and to the south, downdip from the mined area. The parties agree that recharge of the groundwater found in the permit and adjacent areas is from the surface of the land and is generally moving from north to south, downdip.

9. Some USGS studies have assumed that a single "regional aquifer" exists in the permit and adjacent areas. This assumption was not based on site-specific information, and is incorrect, at least in and around Co-op's permit area. The hydraulic conductivity of the Mancos shale layers in the mine area is calculated at 10^{-11} to 10^{-12} cm/sec., a million times less than the sandstone layers, and 10,000 times lower than clay liners used in hazardous waste landfills. The Mancos shale layers therefore act as confining barriers for water in the Star Point formation, greatly inhibiting vertical movement of water between the sandstone layers. Each of the three sandstone layers of the Star Point Formation contains water and has a separate potentiometric surface, indicating three separate aquifers which are not hydro logically connected. In the mine area, the potentiometric surface for each aquifer is above the top of the sandstone member it is contained in, indicating that the aquifers are confined in the mine area. The uppermost aquifer is in the Spring Canyon sandstone, well below the Blind Canyon and Tank Seams where the coal is being mined. No water was encountered in test holes drilled through the Blind Canyon and Tank seams. Water was encountered when the test holes reached the Spring Canyon member of the Star Point formation, and the water level rose in the wellbores above the top of the sandstone layer.

10. The Water Users argue that the permit and adjacent areas are "shattered" by fracturing and faulting, which provides vertical conduits for water flow through the low-permeability shale and coal layers. Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. The Blind Canyon Fault is visibly dry, and is filled with gouge, which if exposed to water would either cement, chemically replace or wash away, further indicating the fault has always been dry. The Blind Canyon Fault is a barrier to water flow, not a conduit for water, and is not transmitting water. There is no water coming into the mine at the Bear Canyon fault. Although fractures are evident in the permit and adjacent areas, the shale units are plastic compared to the more brittle sandstones. Shale tends to deform under pressure to seal internal fractures. These factors, taken together with the containment of the water in the underlying sandstone and the primary impermeability of the shales, lead to the conclusion that the overall vertical permeability of the stratigraphic section in the permit and adjacent areas is orders of magnitude lower than

the horizontal permeability in the area. As a result, virtually all of the water in the Star Point sandstone flows horizontally, not vertically, until it reaches the surface. Likewise, the water in the overlying strata moves not downward, but laterally downdip (generally southward) to the outcrop, where it evaporates. Observations during the October 17, 1996 mine site visit confirmed the presence of moisture at the exposed sandstone faces, showing the water in the upper aquifers indeed flows not vertically, but horizontally until it discharges by seeping out and evaporating at the outcrop.

MINE WATER FINDINGS OF FACT

11. The Tank seam in the mine area has been completely dry throughout. The Blind Canyon seam was dry until December of 1989, when Co-op intercepted water at the north end of its permit area. The intercepted water is in the Blackhawk formation, not the underlying Star Point formation. Except for the north end of the permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them. The water Co-op encountered in the Blind Canyon seam comes down from the mine roof, not up from the floor.

12. Co-op has not intercepted water in the mine from the Star Point aquifers. The water in the mine appears to come from a perched aquifer in a sandstone channel above the Blind Canyon seam. The channel enters the mine from the roof, not the floor. The channel does not interrupt or dip below the Blind Canyon seam, but does spill out in a "flood plain" lip over the top of the seam. As mining proceeded northward, the Blind Canyon seam was dry until the channel was encountered. The water Co-op first intercepted in late 1989 appears to have come from the channel's flood plain lip. Co-op did not mine into the channel itself until April of 1993.

13. Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the west side of the Blind Canyon fault is roughly 5,500 years old, thousands of years older than the channel water. Tritium tests show that Big Bear spring water is modern age. Mixing of water of various ages can produce water which tests at an intermediate age. The age of Big Bear Spring water, however, suggests that either no older mine water is contributing to the flow of Big Bear Spring, or that any mine water flow is so small as to be undetectable. Chemical testing also shows that the water flowing from Birch Spring is dissimilar from mine water and is therefore not coming from or through the mining area.

14. Calculations using the age of the water encountered in the sandstone channel and intra-mine flow suggest the pre-mining rate of flow though the channel is on the order of 1.2 g.p.m., a minuscule flow rate considering the volume of water contained in the sandstone channel. Before mining, the water may have been discharging to a spring in the permit area, to a creek, or to evaporation at the outcrop. If the Water Users' springs were fed from the

sandstone channel, they would have dewatered the channel ages ago. The fact that the channel still contains a great deal of water indicates the channel is not the source of the springs' water.

SPRING QUALITY AND FLOW FINDINGS OF FACT

15. Big Bear Spring and Birch Spring both issue from joints in the base of the Panther member of the Star Point formation. Comparisons of spring flow and precipitation data show the flow at Big Bear Spring responds to precipitation. According to the Water Users' own data, Big Bear Spring's flow rate began declining as early as 1984, as did precipitation, five or more years before Co-op first began intercepting water in its mining operation. As the area has recovered from a ten-year drought, Big Bear Spring's flow rate has also recovered, from a low of 76 g.p.m. in mid-1995 to 148 g.p.m. in late 1996. Present flow rates are well within the range of the spring's flow rate data for 1978-79, before the local drought and before Co-op began mining.

16. Birch Spring is approximately 800 feet to the west of Co-op's permit area and is physically separated from the permit area by two major faults, including Blind Canyon fault, which acts as a barrier to water flow. Birch Spring flow is also precipitation-related. Its flow rate began to decline in mid-1988, about one and one-half years before Co-op first began intercepting water in the mine. Birch Spring's flow in recent years is near the upper range of the historical flow data for 1978-79.

17. Although Little Bear Spring has been found to not be useful as a control, the Water Users' data show Little Bear and Upper Tie Fork Springs declined in flow from the mid-to-late 1980's to the mid-1990's, and began increasing in flow in early 1995. This pattern is similar to that shown in the precipitation data, and the flow rates for Big Bear and Birch Springs as well as Huntington Creek. The spring hydrographs show that declines in flow at the springs were immediately preceded by sharp flow increases or "spikes" in mid-1988. At that time Co-op had not encountered or begun discharging water from the mine. The Water Users' expert testified the spikes were likely caused by an earthquake known to have occurred in the area just prior to the spikes and the subsequent decline in spring flow.

18. The Water Users allege that the springs have been, and will continue to be, contaminated by mining activities, pointing to events of anomalous flow and pollution in the springs. The Water Users argue that "the interconnection between Birch Spring and the mine was demonstrated by the spike flow out of the spring when the mine water was being discharged out of the portals." Even if the pumping caused the spike, which was not demonstrated, the pumping of water <u>out</u> of the mine into a surface drainage above Birch Spring does not demonstrate the hydrologic connection of water <u>in</u> the mine to Birch Spring absent pumping, an activity which is not now being performed and which is not allowed by the mine permit. Whether Co-op has, in the past, discharged water from the mine in violation of its permit is outside the scope of this proceeding.

19. Co-op's mining operations have been, and are now being, conducted to minimize disturbance to the hydrologic balance within the permit area and to prevent material damage to the hydrologic balance outside the permit area. Co-op's mining operations have not been shown to have caused contamination, diminution or interruption of Water Users' state-appropriated water.

THE PHC, THE CHIA AND THE PERMIT

20. The Water Users argue that the baseline data contained in Co-op's original permit application is erroneous, that Co-op's PHC contains false and inaccurate statements, that the CHIA is therefore also flawed, and that the CHIA fails to assess the impact of mining on water availability in the Water Users' service areas, thereby rendering the original permit flawed and incapable of being renewed. The baseline data, the PHC and the CHIA of which the Water Users complain were is existence at the time the permit was issued in 1985, at the time of the first permit renewal in 1991 and at the time of the Water Users' appeal of that renewal. The Water Users did not attack the adequacy of the permit baseline information, the PHC or the CHIA in their appeal of the 1991 permit renewal.

CONCLUSIONS OF LAW

1. Co-op's coal mining operations are in compliance with their permit and with the environmental protection standards of the state program.

ORDER

This informal conference is the second hard look the Division has taken at the allegations by the Water Users that Co-op's mining operations are adversely affecting their spring sources in the vicinity of the mine. Mining has progressed since the last hard look during the 1991 permit renewal and subsequent appeal. Additional information has been developed over the course of the mining in that time, which information has shed new light on the hydrology of the mine permit and surrounding areas. That new information is argued by the Water Users to demonstrate that the information the Division relied upon in making its permitting and renewal decisions was wrong, and that the permit is therefore flawed. The purpose of monitoring information is to test the assumptions and conclusions made at the time of permit issuance, and to decide whether mid-course adjustments in mining operations are necessary to keep the mine in compliance with its permit and the state regulatory program. While the PHC is the operator's best prediction of the "probable" hydrologic consequences based on a snapshot in time, the Division's CHIA is a dynamic document that accommodates new information and changes as our understanding increases.

The Water Users are convinced that mining activity so close to their water sources must be having an adverse effect on those sources, pointing to fluctuations in flow and water quality. In the same sense that everything in the universe is connected, the water in the hydrosphere is all part of a global system and the water in Huntington Canyon is all part of a

regional system. The Water Users have failed, however, to produce any evidence upon which the Division could make a finding that a causal relationship exists between Co-op's permitted mining activities and the injuries the Water Users allege. The Division believes that the new information and analyses made available through the efforts of both the Water Users and Co-op lends additional support to, rather than undermines, the Division's earlier conclusion that there is no effective hydrologic connection between the mine and the Water Users' springs, and that the mining activities are not causing material damage to the hydrologic balance outside the permit area. Co-op's mining permit is therefore renewed.

SO DETERMINED AND ORDERED this 11th day of August, 1997.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

James W. Carter, Director

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing DIVISION FINDINGS, CONCLUSIONS AND ORDER for Docket No. 95-025, Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, this 12th day of August, 1997, to the following:

Jeffrey W. Appel
Benjamin T. Wilson
W. Herbert McHarg
APPEL & WARLAUMONT, L.C.
1100 Boston Building
9 Exchange Place
Salt Lake City, Utah 84111

Attorneys for Castle Valley
Special Service District

J. Craig Smith
David B. Hartvigsen
NIELSEN & SENIOR, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

Attorneys for North Emery Water Users Association
and Huntington-Cleveland Irrigation Company

F. Mark Hansen, Esq.
Attorney at Law
624 North 300 West, Suite 200
Salt Lake City, Utah 84103

Attorney for Co-op Mining Company

Diane Ruby

First-Class Mail, Postage Prepaid on the
12th day of August, 1997, to the following:

Wendell Owen
Co-Op Mining Company
P.O. Box 1245
Huntington, Utah 84528

Carl E. Kingston
3212 South State Street
Salt Lake City, Utah 84115

Jeffrey W. Appel (3630)
Benjamin T. Wilson (5823)
W. Herbert McHarg (7573)
APPEL & WARLAUMONT
9 Exchange Place, #1100
Salt Lake City, Utah 84111
Telephone: (801) 532-1252

Attorneys for Castle Valley
Special Service District

J. Craig Smith (4143)
David B. Hartvigsen (5390)
NIELSEN & SENIOR
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Telephone: (801) 532-1900

Attorneys for North Emery Water Users Association
and Huntington-Cleveland Irrigation Company

BEFORE THE DIVISION OF OIL, GAS, AND MINING

DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY BEAR CANYON MINE EMERY COUNTY, UTAH	))))))	OBJECTORS' JOINT POST INFORMAL CONFERENCE MEMORANDUM AND CLOSING ARGUMENT Docket No. 95-025 Cause No. ACT/015/025

Petitioners Huntington-Cleveland Irrigation Company, North Emery Water Users Association and Castle Valley Special Service District (collectively "Water Users"), by and through their counsel of record, respectfully submit the following Objectors' Joint Post Informal Conference Memorandum and Closing Argument.

INTRODUCTION

Renewal of mining permits such as the permit at issue is governed by R645-303-230, et seq. Of specific importance to this proceeding are R645-303-233.110 which forbids renewal unless the terms and conditions of the existing permit are being satisfactorily met, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, and R645-303-233.200 which places the burden of proof on the opponents of the renewal.

As will be discussed in detail below, the informal conference held on October 17, 1996, November 8, 1996 and February 28, 1997 revealed that the requirements governing the hydrologic portions of the existing permit are not being satisfactorily met. The same is true for the environmental protection standards. Each of these grounds and the other grounds set forth herein require that the permit of Co-op not be renewed, and mining cease until such time as these requirements can be met.

POINT I

CO-OP HAS ADMITTED THAT THE HYDROLOGIC INFORMATION UPON WHICH THE PERMIT WAS ISSUED IS ERRONEOUS

A permit to mine coal may only be issued upon submission of specific information in the form of a Permit Application. See R645-300-112.400. The Applicant is required to provide specific hydrologic information as set forth in R645-301-700, et seq. This hydrologic information submitted by the Applicant, commonly known as the Probable Hydrologic Consequences or "PHC," forms the basis for the Division's assessment of the probable

cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance and must support the Division's required determination that the operation has been designed to prevent material damage to the hydrologic balance outside the permit area. R645-300-133.400.

During the informal conference, it became obvious that at best the hydrologic information previously submitted by Co-op as part of its permit application under R645-301-700, et seq. is flawed and inaccurate, thus requiring a resubmission of new and corrected hydrologic information prior to permit renewal. Further study and monitoring is required as well.

At the informal conference, Co-op changed its prior position with respect to the hydrologic data submitted as part of its permit application and upon which its permit was granted. A new theory of hydrology was enunciated by Co-op's new consultant--Alan Mayo. That theory, that the mining operation of the Bear Canyon Mine has encountered a sandstone water channel, is totally new and at variance with the hydrologic information previously submitted by Co-op as part of its permit application. The abandoned theory relied upon continuing interception of small perched aquifers, rather than interception of the potentiometric surface, which is Water User's position or an underground water conduit as postulated by Mayo at the recent hearings.

Mayo's testimony is premised on an entirely different theory of hydrogeology than the theory advanced in the PHC. The PHC describes the stratigraphic sequence as a "great thickness of <u>discontinuous</u> sandstone, coal, and mud/siltstone units." PHC at 2-6. In the PHC, Co-Op states:

> Groundwater enters the Blind Canyon Seam of the Bear Canyon Mine through fractures and roof bolt holes. Typically, water encountered by roof bolt holes flows moderately at first. Over a period of one or two months, flow decreases and eventually stops. Sources of these short-lived flows are inferred to be localized perched aquifers which store a limited amount of water.

PHC at 2-13.

The PHC also states that "[d]rainage of water from faults and fractures produces the largest volume of water flowing into the mine." PHC at 2-33.[1] At the recent hearing, Richard White testified that this statement is incorrect, stating that "the largest volume of water flowing into the mine is from the sandstone channel." HT III. at 260. This alone establishes that the hydrogeologic information upon which the permit was issued is erroneous.

According to Mayo, the sandstone "channel" above the mine is "a broad-based channel as well as being a long channel." HT III. at 41. Under his theory, it is this "channel" that is producing all of the water in the mine. Mayo stated that it appears to him "that the Blind Canyon Fault does not transmit water, in other words, acts as a barrier for groundwater which will be in overlying rocks and likely underlying rocks associated with the coal seams. It is likely that the large fault up Bear Canyon is -- also inhibits the flow of groundwater." HT III. at 49.

This "channel" would be classified as an aquifer with water moving through it. HT III. at 89-90. Mayo's testimony indicates that this water originally moved only horizontally, but mining activity has allowed the water to flow vertically. He stated that "I don't believe that those coal seams prior to this mining activity would allow it to be moving much -- to be

---

[1] The Revised Hydrogeologic Evaluation went on to state that "[m]ost of the water movement in the study area is through fractures, faults, and partings between the beds." RHE at 2-14.

moving vertically." HT III. 90. The PHC did not address this theory or this particular impact of mining because "the initial hydrogeologic evaluation in the PHC did not specifically address the channel because it hadn't been encountered at the time it had been written." Testimony of Chris Hansen, HT III. at 232.

Mayo also stated he did not know whether the conclusions of the PHC conformed to his conclusions because he had not "reviewed the PHC in terms of "Is this PHC adequate?" HT III. at 94-95. His lack of contact with the prior findings and theories of Co-op led to an entirely new theory of the hydrogeology of the mine and different mine discharge numbers than those contained in the PHC or the CHIA. HT III. at 123. Therefore, his testimony, on its face, attacks the adequacy of the PHC. Of course, Objectors presented an entirely different theory, fully supported in a variety of different ways and by independent methods. Certainly Co-op must be required to resolve these disparities and fully answer all of the hydrologic and hydrogeologic questions prior to the continuation of mining. Unanswered questions and open issues do not meet the legal requirements attendant to this proceeding.

Co-op, through the submission of the expert testimony of Mayo, has admitted that the existing permit was issued upon flawed and inaccurate hydrologic information in Co-op's PHC. The Division's hydrologic assessment, which is based on the now admittedly flawed and inaccurate information, is not valid. The hydrologic terms and conditions of the permit cannot possibly be met as those terms and conditions are incorrect, flawed and do not meet the requirements of R645-303-233.110. The permit may not be renewed at this time.

POINT II

CO-OP IS INTERCEPTING AND RE-DIVERTING WATER THAT WOULD OTHERWISE PROVIDE FLOW TO OBJECTORS' SPRINGS AND THUS IS NOT COMPLYING WITH ENVIRONMENTAL PROTECTION STANDARDS

A second ground for non-renewal of the permit is the non-compliance with the environmental protection standards in the state program. In the area of hydrology, the relevant standards are to prevent material damage to the hydrologic balance outside the permit area (R645-300-133.400) and to replace any water rights that are affected in quantity or quality, (Utah Code Ann. § 40-10-18(15)(c) (1997).) As set forth below and at the informal conference, the non-compliance of Co-op with the relevant environmental protection standards was established by the Water Users.

A. The interconnection between water within the Bear Canyon Mine and Big Bear and Birch Springs was admitted.

At the informal conference an important fact was established. For the first time and in direct contravention of its statements at the time of renewal in 1990-1991, and at the significant review hearings, Co-op admitted it pumped vast quantities of water intercepted at the working face of the mine into a worked-out portion of the mine and elsewhere, during the 1989-1992 time period. See HT III. at 25; 250; 292. It was during this same time period that anomolously high flows and water quality problems were experienced in Big Bear and Birch Springs. The testimony of Charles Reynolds, Gaven Atwood and others substantiated these illegal actions. HT II. at 217-238; HT III. at 25. The import of this admission is that the hydrologic interconnection between the mine and the springs undisputably exists. In other words the water inside the mine can and does reach and feed the springs of Water Users.

B. The groundwater system through the area of the Bear Canyon Mine is connected with the Recharge on Gentry Mountain and Big Bear and Birch Springs.

Testimony at the hearing demonstrates that the Gentry Mountain groundwater system is interconnected. In his testimony, Mr. Peter Nielsen agreed that the interconnection between Birch Spring and the mine was demonstrated by the spike flow out of the spring when the mine water was being discharged out of the portals. HT II. at 129. According to Mr. Nielsen, this "shows the fractured nature of the system where you discharge out the portal into Dry Creek and you get peak flows several weeks or less than a week later in Birch Springs downgradient several thousand feet." HT II. at 130. Mr. Nielsen:

> identified a trend associated with that fracture in aerial photographs and also identified that same fracture zone in subsidence associated with Trail Canyon Mine in Dry Creek. So it's an interaction of discharging water on the surface going into the subsidence and interacting with any water in Trail Canyon, some volume of water in there probably saturating the system, saturating the fault and having some sort of failure, or simply recharging the zone.

HT. II. 131. Nielsen was able to conclude that there "is no difference in the recharge location" for the water from Birch Spring, Big Bear Spring and the mine -- all are recharged from snow pack on Gentry Mountain. HT II. 77. Significantly all experts who testified agreed that Gentry Mountain provides the recharge for both water in the mine and the springs.

C. Activities in the Bear Canyon Mine which re-direct or contaminate water do not comply with Environmental Protection Standards.

With the hydrologic interconnection between the mine and the springs established, the Division must conclude that activities which re-direct or contaminate water do not comply with Environmental Protection Standards of the Division in violation of R645-303-233.120. They also damage the hydrologic balance outside the permit area in violation of R645-301-750. As

was established at the Informal Conference, when the Bear Canyon Mine was first permitted, and during its early years, it was virtually dry. HT III. at 8. However, as mining proceeded to the north, significant and continuous flows of water were encountered and continue to be encountered today. As discussed above, this encountered water is hydrologically connected with Big Bear and Birch Springs.

POINT III

THE PHC CONTAINS FALSE AND INACCURATE STATEMENTS AND LACKS AN ADEQUATE AMOUNT OF BASELINE DATA, AND THE CHIA FAILS TO ADDRESS THE CUMULATIVE HYDROLOGIC IMPACTS OF MINING

A. The PHC Contains False and Inaccurate Statements

In addition to the revision of existing hydrologic information and theory provided by Mayo, there are numerous false and inaccurate statements in the PHC which also demonstrate its inaccuracy and unreliability.

Co-op has stated that the "volume of groundwater flow into the mine has only recently increased sufficiently to produce water in excess of that needed for mine operations." PHC at 2-33. This statement is a factual misrepresentation as we know Co-Op encountered at least 110 gpm of water in the 1st North section of the mine in the summer of 1989. This fact is evidenced by pages 3-1 and 3-2 of the Hydrogeologic Evaluation of the Bear Spring Mine Permit and Proposed Expansion Areas by Earthfax Engineering, Inc. dated March 11, 1991, which states:

> The East Bleeder inflow remained constant until the summer of 1989, when water was encountered at the northern end of the North Main entries. According to Wendell Owen, the mine intercepted a flow of about 110 gpm. This flow occurred mainly from fractures and roof bolt holes in the roof and has essentially remained constant since it was first encountered.

There are other documents that evidence water prior to 1991. The C.W. Mining Co. mine map dated December 1, 1989 Bear Canyon Plate 7-1A shows that Co-Op hit "Seeps/Drippers - 110 GPM" in the 1st North area on August 3, 1989 when this area was mined out. Each of Co-Op's mine maps from this time forward have shown this flow is continuing. For example, the Co-Op Mining Company Mine Water Survey Map, dated January 1, 1992 Plate 7-10A shows the 1st North area producing 120 gpm, and the 2nd East Bleeders area producing 252 gpm. Further, the Co-Op Mining Company Annual Report 1990, page A-14, shows that Station SBC-9, which is the first North area, produced flows of 120 gpm to 97 gpm during 1990.[2] The 1991 Annual Report states that Station SBC-9 produced from 81 to 140 gpm in 1991. This evidence clearly establishes that Co-Op hit major amounts of water in 1989.

An important question is presented as to what Co-Op did with all this water once it was encountered. According to the Co-Op Mining Company Annual Report for 1990 page A-2, the Total Water Usage for 1990 in the mine was 994,600 gallons (3.052 acre feet). This yields an average usage of 2,725 gallon per day. However, in the same report, they provided data relative to inflow in the 1st North area of the mine at a mean flow of 114.25 gpm for the year. Annual Report 1990 at A-14. The flow of 114.25 gpm is equal to 164,520 gallons per day or 60,049,800 gallons per year (184.3 acre feet). Thus, the difference between the water used and the water produced in 1990 is 59,055,200 (181 acre feet) -- where did this water go? That question, as well as where the water would have gone but for its interception must be answered before mining may continue and the lost water must be replaced.

---

[2] This 1990 report was used because DOGM either does not have, or is unable to locate a 1989 annual report.

Co-Op began reporting a discharge from the mine on their discharge permit in April of 1991. During the 606 days from August 3, 1989 when they reported encountering water in the 1st North entry until April 1, 1991, 114.25 gpm or 164,520 gallons per day were produced, yet only 2,725 gallons per day were used on average. Where did the unaccounted 161,795 gallons per day or a total of 98,047,770 gallons (301 acre feet) produced during this time period disappear to? These questions are not answered by the mine permit as it fails to account for this water. Mine Dewatering § 7.1.4.3, page 7-32.

The answers to these questions were given in Mr. Gaven Atwood's testimony. In his testimony, Atwood disclosed that this water was pumped, without a permit, out of the west portals until October of 1989 which the flow of North Emery's Birch Spring. HT II. at 214-224. They also "breached" a seal that was installed in the old workings and pumped water into these workings. Id. at 221.[3] Pumping water into these old workings caused the icicle formation on the ledges above Big Bear Spring, and contaminated that spring.[4] See HT II. at 128, 169, 183, 221-228.

In addressing the surge in flow and contamination of the Big Bear Spring during the fall of 1989, Co-Op argued that "[t]he reason for this fluctuation is unknown." Revised Hydrogeologic Evaluation at 2-39. However, in an interoffice memo from Tom Munson, senior reclamation hydrologist, to Pamela Grubaugh-Litig, permit supervisor, dated May 17,

---

[3] This testimony raises issue with a statement made in the PHC that "SBC-3 was damaged in 1990 and surface water began leaking into the well. In March 1992, SBC-3 was repaired and sealed." PHC at 2-13.

[4] Co-Op admitted during this hearing this event took place. Yet in the prior Blind Canyon Seam and in the Tank Seam hearings, they denied this and went to great lengths to try and prove that the ice formation was a common occurrence.

1991, Mr. Munson states:

> It has been discovered that mine water was pumped into old workings in the south end of the mine via a pressure relief valve set up on the in-mine pumping system . . .. Based on the information the Division has received from Co-op in response to its November 27th, 1990 Division Order, and a verification that the pumping system and set-up conducted on May 16th, 1991 by Jesse Kelley, the Division has made the following observations:
>
> > Pumping water into the old workings via the old pumping and piping system most probably had an effect on the water balance in the old workings causing a discharge to occur at the outcrop, potentially affecting Big Bear Spring.
>
> ***
>
> Based on the discovery of the pumping of water into the old workings and the documented increase in the flow in Big Bear Spring, the termination of pumping water into the old workings will hopefully solve the current quantity and quality abnormalities at Big Bear Spring.

(Munson Memo, 5/17/91).

Charles Reynolds admitted that during this time, "[water] was discharged into the old workings . . . . It was put into the old workings, and at the time it appeared there may be a potential, in fact the Division requested that cease and that was discontinued." HT I. at 26. Further, even though the evidence shows that Co-Op had knowledge, the PHC states that "[t]o date, no negative impacts to seeps or springs has been demonstrated." PHC 2-36. This is in addition to the material misrepresentations concerning these facts made to Dianne Nielson in the previous proceeding to secure the last renewal.

During the recent hearing, Earthfax presented flow data from Danielson on Big Bear Spring and Birch Spring in 1978, showing that the flow was only 110 gpm. HT II. 207. They used this data to attempt to argue that low flows of this magnitude were common to this spring and that the low flows during the last few years were to be expected.

It should be noted that the water years of 1977 and 1978 had the lowest ever recorded annual precipitation in that area. The preceding years were probable declining precipitation years as well. The normal trend at Big Bear Spring and Birch Spring would be for discharge to decline as well, as evidenced by Danielson's measurements from Little Bear Spring which show nearly record low values during the same time period. This suggests that the springs were dewatering aquifer storage.

It is interesting to note, however, that between 1979 to 1985 annual precipitation increased to above average and the discharge at the Springs also increased and followed the peak discharge pattern in one year. This response was not observed at Big Bear Spring and Birch Spring following the declining precipitation trend between 1985 and 1990 and the Spring has not recovered in the later years. Because Big Bear and Birch Springs have not recovered their flows in the same pattern as in 1978 through 1985,[5] one suspects that <u>something</u> has changed the aquifer storage, especially since the control spring, Little Bear, has returned to normal. That something is the mining operations of Co-op.[6]

---

[5] This pre-mining baseline monitoring fact should have been in the original PHC, but is not.

[6] This is the same argument advanced by Richard White of Earthfax at the hearing when asked if he would agree with the statement made by Gregory Lines that "groundwater storage has been reduced around all water-producing mines in the area." HT III. 264. As to Bear Canyon Mine, Mr. White argued that:

> the storage is basically -- it's as though you have this bathtub. And so if you take something out of the bathtub, you've reduced the storage. So anytime water is discharged from the mine, something has been removed from storage.

HT III. 264.

B. The PHC Lacks Adequate Data To Establish The Baseline From Which Hydrological Consequences Are To Be Measured

The PHC is inherently deficient because it lacks sufficient baseline data, i.e., the quantity and quality of flow of surface and ground water, so that DOGM may assess the probable cumulative impacts and produce its CHIA. It is axiomatic that if the PHC is deficient, the CHIA would be deficient, and thus would result in an invalid permit.

Section 1257(b) (Submittal contents) of Title 30 of United States Code Annotated (§ 507(b) of SMCRA), provides:

> The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things -
>
> . . .
>
> (11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime,[7] quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, That this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, That the permit shall not be approved until such information is available and is incorporated into the application;

30 U.S.C.A. § 1257(b).

The history of SMCRA indicates that protection of the integrity of surface and ground-water resources from the potential adverse impacts of coal mining was one of SMCRA's major objectives. In passing SMCRA, Congress acknowledged several historical incidents in which

---

[7] Hydrologic regime means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

coal mining had deprived communities downstream from mining areas of the quantity and quality of water needed to sustain those communities. As Judge Flannery said in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990),

> [SMCRA] also reflects that harm to the environment can occur through accumulation of little things over a long time. At issue here is not just whether a dam will crack and burst after many years. The Act shows deep concern about changes to the quality of ground water and streams because of erosion or run-off that could take many years to come to full effect.

Id. at 20128. Therefore, in section 507(b)(11) of SMCRA, Congress required that the regulatory agency conduct "an assessment [of] the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability."

Under § 507(b)(11) of SMCRA, mining permit applicants are required to submit PHCs that focus and analyze the hydrologic effects of the mine and "adjacent areas." This has been interpreted by the Office of Surface Mining Reclamation and Enforcement, Department of the Interior, ("OSMRE"), and upheld by the courts[8] to require a "life-of-the-permit" analysis. On the other hand, a CHIA, which is the regulatory agency's duty, requires a more extensive "life-of-the-mine" analysis.

Under 30 C.F.R. § 784.14(e)(2) and R645-301-731.800 the PHC must provide "baseline hydrologic data," i.e., the quantity and quality of flow of surface and ground water. Furthermore, under § 507(b)(11) of SMCRA, the application must include sufficient data so

[8] National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990).

that DOGM may assess the probable cumulative impacts and produce its CHIA.[9] "This information [baseline data] must be gathered and evaluated by the applicant to a degree that will reasonably assure the protection of the onsite and offsite environment and water rights of others in areas where adverse impacts may occur." 47 Fed. Reg. 27,712, 27,715 (June 25, 1982). The Utah Administrative Code also requires the permit application to include a plan that is specific to the local hydrologic conditions, contain steps to minimize disturbance to the hydrologic balance inside the permit area, prevent material damage outside the permit area, and includes "measures to be taken to protect or replace water rights and restore approximate premining recharge capacity." R645-301-731.

Without providing an in-depth review of the entire PHC, it is clear the baseline data of the PHC is insufficient. For example, Table 2-5 on page 2-10 of the PHC indicates that SBC-4 (Big Bear Spring) and SBC-5 (Birch Spring) were "not measured" between 1984 and 1991.[10] EarthFax's Figure 2-2 also does not show the geologic strata below the Mancos No. 1 formation in well DH-4, nor does it show any water in the Storrs formation from that well. Also, the PHC is not entirely clear how many samples were used by EarthFax to arrive at the figures it uses in most of its tables. For example, Tables 2-6 and 2-9 indicate that 8 quantity

---

[9] The legislative history of SMCRA shows that the Senate added to § 507(b)(11) a requirement that the CHIA not be required until adequate hydrologic information was available on the general area and that the House responded with a proviso that the permit could not be approved until such information was available and incorporated into the permit. 53 Fed. Reg. 36,394, 36,396 (Sept. 19, 1988).

[10] Despite the Board's ruling in the Tank Seam proceeding that it was "convinced" that Co-Op's failure to measure flow rates at the inception of mining was "harmless," requisite baseline data needed to be more than reliance on Water User's records. Co-Op should have done studies to establish baseline data themselves.

and quality tests were made for Big Bear and Birch Springs in 1991. These tables indicate that a different number of samples were taken from the other monitoring sites and many of the tables do not indicate the number of samples taken in order to come up with the numbers.

The installation of the groundwater monitoring wells inside the mine, after they intercepted the large flows in 1989 does not constitute baseline data required under 30 C.F.R. § 784.14(e)(2), especially since that law was enacted before Co-Op started mining in the Bear Canyon Seam. The aquifers above and below that portion of the mine were likely dewatered before the groundwater monitoring wells were installed in the mine.

Further, the testimony of Gaven Atwood demonstrates some of the samples used may not represent actual water flow/quality conditions.[11] Atwood personally witnessed many instances where oil and grease got into the mine water, including a time when they blew a main and within two minutes it poured out 250 gallons of oil. HT II. 225. He also testified that mine workers would urinate and defecate inside the mine.[12] Despite these facts, the PHC neither included an analysis of the water quality impacts of fecal coliform, nor a plan to deal with spontaneous high volume discharges of hydrocarbons. PHC at 2-37. The end result was the contamination of Water User's springs by mine operations.

The point is that in order to gauge the probable and cumulative impacts of future mining in an area, an adequate baseline study must be and was required to be performed.

---

[11] Atwood testified that on the second day he worked at the mine, he was told to take a water sample for DOGM. Atwood collected the sample of "really good drinking water" from a drip in the roof, although the sample was supposed to come from the well that sits outside the discharge point. HT II. at 228.

[12] The fact that approximately sixty people per day work in the mine indicates much fecal coliform is produced.

Because insufficient data was collected and arrayed, Co-Op must be required to provide more information on the hydrology of the mine area:

> When existing wells are not sufficient in number or location to provide an accurate description of baseline conditions, §§ 780.21(b)(2) and 784.14(b)(2) would allow the regulatory authority to require drilling of new or additional monitoring wells and to require that necessary additional information be provided.

47 Fed. Reg. 27,712, 27,715 (June 25, 1982). Additional monitoring wells for more extensive monitoring would also provide the DOGM with an "early warning system," which may meet some of Water User's concerns. Also, groundwater monitoring is usually based on the baseline data. To the extent that baseline information is inadequate, ongoing monitoring should be more extensive to make up for the inadequate baseline information.

C. The CHIA Fails To Adequately Address The Cumulative Hydrologic Impact Of Mining On Water Availability To The Areas Within Which Impacts From The Mining May Occur

Because the PHC did not include the quantum of information about the hydrogeology of the area necessary for the DOGM to prepare the CHIA, a permit cannot be approved until adequate information is available and incorporated into the permit. See footnote 9. If this information is not available:

> then the regulatory authority must delay issuance of the permit until either the necessary information is available for an appropriate federal or state agency or is collected and incorporated into the permit application by the applicant.

53 Fed. Reg. 36,394, 36,398 (Sept. 19, 1988). Thus, if the information available regarding the hydrology of the mine area is insufficient for the CHIA, the applicant must provide that data. Because the Co-Op PHC did not contain this information, the CHIA analysis was inadequate and mining must cease.

1. The CHIA erroneously excludes an assessment of impacts of mining on the availability of water in the service areas of Water Users.

The CHIA is required to assess the impacts in the "cumulative impact area" ("CIA"). The CHIA gives an exhaustive, 2-page inventory of the indigenous plant species within the currently-defined Gentry Mountain CIA, yet ignores the human populations who rely on the water coming from that area. CHIA, I. Introduction.

Section 701.5 of 30 C.F.R. defines, "cumulative impact area" to mean the area "within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and ground-water systems." This, coupled with the § 507(b)(11) requirement that the CHIA assess "water availability" leads to the conclusion that the service areas of Water Users should be included in the CIA. However, the current "southern and eastern boundaries [of the Gentry Mountain CIA] are defined by T16S/T17S and R8E/R9E SLBM, respectively." CHIA, II. Cumulative Impact Area. This covers an area of approximately 112 square miles.[13] This CIA eliminates an assessment of the hydrologic impacts of mining and water availability on the downstream communities of Huntington and Cleveland. By excluding these areas, the CHIA fails to meet the purpose of § 507(b)(11) that the CHIA assess hydrologic impacts, "particularly upon water availability."

---

[13] The preamble to the rule proposing the definition of the CIA states, "the cumulative impact area would be defined to mean, with respect to assessment of the probable cumulative hydrologic impacts of mining, the surface and ground-water basin(s), . . . which may have a cumulative hydrologic impact with the proposed operation. . . . The precise areal extent of the cumulative impact area would be defined, on a permit-by-permit basis . . . ." 47 Fed. Reg. 27,712, 27,714 (June 25, 1982).

2. The CHIA inadequately addresses hydrologic impacts of mining on the availability of water to the service areas of Water Users.

Because the CIA excludes the service area of Water Users, the CHIA is rendered inadequate. Under 30 C.F.R. § 784.14(f), the CHIA is required to be sufficient to determine the probable cumulative impact to the hydrologic balance outside the permit area, i.e., the service areas. As a review of the CHIA indicates, no analysis of water availability has been done for these areas.

It may not be argued that water availability of downstream users is not affected by mining in the Gentry Mountain area. The five mines listed in the CHIA--Bear Canyon, Deer Creek Mine Waste Rock Storage Facility, Hiawatha Mines Complex, Star Point Mines, and Trail Canyon Mines--all "consume" groundwater that would eventually make its way, one way or another, to those downstream communities. The CHIA's assessments of impacts of mining on water availability is very sparse. In this regard, the Gentry Mountain CHIA merely concludes, "approximately 630 gpm are consumptively lost to mine ventilation (80 gpm) and evaporation at coal preparation facilities (545 gpm)" and "An upper limit of 20 years has been estimated for complete flooding of workings and re-establishment of the premining ground water system." CHIA, VI. Summary. The CIA and CHIA must be completed per the requirements of law before mining may continue.[14]

3. An inadequate CHIA raises the question of whether the permit has been legally issued or renewed.

The inadequacies of the CHIA make a comparison of PHCs on proposed mining

[14] As all of Huntington Creek is still appropriated water, this water must be replaced pursuant to § 40-10-18(15)(c).

operations with the CHIA inadequate as well. In defending the PHC and CHIA requirements to the district court, the Secretary of the Interior argued in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990), that:

> [A]t its option, the operator may submit additional data to assist the regulatory authority in drawing up the CHIA. Implicit in this suggestion is the view that the operator almost has to submit such data, because if the regulatory authority cannot put together a CHIA, it may not issue a permit. See SMCRA s 507(b)(11), 30 U.S.C.A. s 1257(b)(11) (CHIA not required until hydrologic information made available by federal or state agency, but permit shall not be approved until information available and incorporated into the application) (See NWF v. Hodel, 839 F.2d at 758, construing statute in this manner.)

Under this analysis, the original permit and the current permit renewal should not have been granted until there was sufficient information on water availability and hydrology to prepare and incorporate into the CHIA. As is discussed above, DOGM must review the PHC with a revision of the CHIA and the areal extent of the CIA in mind.

4. The CHIA's findings are inadequate.

Finally, the CHIA's findings are inadequate. Under 30 C.F.R. § 784.14(f), and R645-301-729.100 "[t]he CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation[s] [have] been designed to prevent material damage to the hydrologic balance outside the permit area." In this regard, the CHIA simply concludes: "[t]he designs proposed for all anticipated mining operations within the CIA are herein determined to be consistent with preventing damage to the hydrologic balance outside the proposed mine plain areas." CHIA, VI. Summary. This is merely an inadequate, misstatement of the applicable standard for a CHIA. Thus, DOGM must re-visit its Gentry Mountain CHIA and CIA for the purposes of bringing it into compliance with § 507(b)(11) of SMCRA. As part of that process, the CIA must be enlarged beyond its current border of T16S/T17S and

R8E/R9E SLBM to include the areas served by Water Users.

POINT IV.

The arguments below address the issues requested by the Division in its March 25, 1997 letter.

A. UNDER R645-301-750 CO-OP IS REQUIRED TO EITHER AMEND ITS PLAN OF OPERATIONS OR MAKE REPARATIONS FOR DAMAGES CAUSED IF IT CAN BE DEMONSTRATED THAT THE MINING HAS ANY HYDROLOGIC EFFECT

The performance standards of R645-301-750 provide:

> All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area . . .

R645-301-750 does not address the quantity of effect that must be demonstrated to require an operator to amend its plan or make reparations. The omission of language concerning amount or level of disturbance is evidence that the amount of hydrologic effect is not an issue. Further, there are many other provisions in the rules that imply the intent was to mandate this requirement where any hydrologic effect can be shown. Of course, in this case any water diverted in a manner that reduces Water Users vested water rights is a material impairment and damage. The fact is that hundreds of acre feet are missing.

For example, R645-301-731 states that the "plan will specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645-301-728 and will include preventative and remedial measures." Further, R645-300-148 states that the permittee will provide "[a]ny new information needed to correct or update the

information previously submitted to the Division by the permittee under R645-301-112.300."[15] R645-300-148.100. This implies that if any new hydrologic effect is demonstrated it must be addressed by the PHC, even if there is only a potential effect. Of course here we have actual effects.

The Water Users have demonstrated at this hearing and Co-Op admitted, that there was a surge in quantity and decrease in quality of the spring water during the time that Co-Op pumped water into the old workings. That means the mine workings are interconnected with the Springs and are intercepting Spring recharge water. It is undisputed that Water Users springs have not recovered their historic flows and the testimony and exhibits introduced support that conclusion. Thus, the injury is actual, material and continuing, and the Division must minimize this disturbance and prevent any further damage.

B. THE DIVISION MAY ORDER WATER REPLACEMENT AS A REMEDY THAT IS CURRENTLY AVAILABLE AND CO-OP IS REQUIRED TO REPLACE WATER IT CONTAMINATED, DIMINISHED, AND/OR INTERRUPTED

1. The Division May Order Water Replacement As A Remedy That Is Currently Available

Even though the Board has not yet promulgated underground water replacement rules under the recently enacted amendments to the Utah Coal Regulatory Program, as an administrative matter, an order of water replacement is a remedy currently available to the Division. The Surface Mining Control and Reclamation Act of 1977 gives primary responsibility for developing, authorizing, issuing, and enforcing regulations rested with the

[15] This provision applies to instances where cessation has been ordered and is presented here only to illustrate intent.

states. 30 U.S.C. § 1201(f). State laws and regulations must be consistent with, and at least as stringent as, federal law or else the state risks federal intervention, withdrawal of program approval, and loss of primacy. 30 U.S.C. §§ 1211, 1253, and 1255. Congress revised SMCRA (Public Law 95-87) in section 2504 of the Energy Policy Act of 1992 by adding section 720 (1309a). Pub.L. 102-486, 106 Stat. 2776 (1992). Section 1309a of SMCRA requires underground mining operations to:

> promptly replace any drinking, domestic, or residential water supply of a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

30 U.S.C. § 1309a(a)(2). The Office of Surface Mining Reclamation and Enforcement promulgated a final rule implementing section 1309a and adding "Probable-Hydrologic-Consequence" and water replacement requirements to 30 C.F.R. §§ 701.5, 784.14, and 817.41. 60 Fed. Reg. 16722 (March 31, 1995).

Since 1979, Utah has required that:

> The operator of a surface coal mine shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use form an underground or surface source where this supply has been affected by contamination, diminution, or interruption proximately resulting from the surface coal mine operation.

Utah Code Ann. § 40-10-29(2) (1979). The 1997 amendments expand this requirement to underground mining to coincide with and abide by federal law. Further, Rule R645-301-731.800 of the Utah Administrative Code mirrors the language of the Utah Code. Even Mr. Hansen, counsel for Co-Op, acknowledged before Chairman Lauriski that the requirement to replace water is:

> nothing new, it's written into the current regulations. R645-301-731 requires Co-Op's plan to include measures to be taken to protect or replace water rights and . . . [a]lso require Co-Op mine to replace any water that's contaminated or lost.

Transcript of Hearing on Tank Seam, 10/25/94 at 26.

Co-Op cannot now argue that replacement is not required. For replacement to be a viable option, however, a source must be identified and be available before interruption occurs. That is not the case now and is an issue that must be resolved before the permit may be renewed.

2. CO-OP Is Required To Replace The Water That It Contaminated, Diminished, And Interrupted

Co-Op is required to replace any water that has been contaminated, diminished or interrupted -- regardless of the quantity affected. Utah Code Annotated Section 40-10-18(15) provides:

> (c) Subject to the provisions of Section 40-10-29, the permittee shall promptly replace any state-appropriated water in existence prior to the application for a surface coal mining reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

Utah Code Ann. § 40-10-18(15) (1997).

The rule of *de minimus non curat lex* has no application to this determination. That rule is reserved for circumstances where the harm caused, the potential that the harm will occur, or the injury suffered by the occurrence would be so minor that the law need not be concerned. Utah courts recognize, and strongly protect the rights of water owners. This is illustrated by the Utah Supreme Court's disapproval of the statement made in a State Engineer's decision that there could be a "de minimus" decrease of the water reaching the lower users "with which the

courts will not be concerned." Piute Reservoir & Irrigation Co. v. West Panguitch Irr. & Reservoir Co., 367 P.2d 855 (Utah 1962) (holding that a change should not be allowed to operate without affirmative proof that the rights of the lower water users were not thereby impaired). Furthermore, Utah has adopted a strict liability standard for interference with water. Morgan v. Quailbrook Condominium Company, 704 P.2d 573 (Utah 1985) (instruction on interference with water properly phrased in terms of strict liability citing water scarcity rationale of Branch v. Western Petroleum, Inc., 657 P.2d 267 (Utah 1982)).

In this case, the Water Users are the owners and purveyors of the water rights in Birch Spring and Big Bear Spring. These springs are major drinking water sources for Northern Emery County. Evidence adduced at the hearings revealed that Co-Op's mining operations have affected these springs through loss of hundreds of acre feet. The actions of Co-Op have destroyed the historic return flow patterns and consume groundwater which would have eventually made its way to Water User's springs. Without replacement water, the Water Users' ability to provide a safe and consistent water supply to their constituents is severely threatened. Thus, rule of de minimus non curat lex does not apply, and Co-Op should be strictly liable for any contamination, diminution or interruption of the Water Users' springs under the mandates of R645-301-727. They should be ordered to replace the water they have intercepted.

Where the "de minimus" rule does not apply, the amount of impact is irrelevant. However, even if the Division finds that the rule could apply to cases involving such an important resource, it would not apply in this case. The impact on the Springs occurring simultaneously with Co-Op's discharge of excess mine water into the old workings (the

"event") was extensive and continuing, and its significance is great. The current flows from the springs are a reduction of hundreds of acre feet from the historical flows. Furthermore, Water Users submit that another significance of the "event" was that it established that there is in fact a relationship between the activities occurring in the mine and the quantity and quality of water at their springs. Certainly the continuing potential for an impact of unknown magnitude cannot be considered de minimus.

CONCLUSION

The informal conference has uncovered the flawed and inaccurate nature of the PHC, CHIA and CIA, which is the hydrologic information upon which the Permit is based. It has also demonstrated the material misrepresentations upon which the previous permit renewal was based. Co-op must not be allowed to profit from such behavior. Finally, the need for immediate replacement of water and the need for identification of future replacement sources has been amply demonstrated.

Dated this 8th day of May, 1997.

APPEL & WARLAUMONT

Jeffrey W. Appel
Benjamin T. Wilson
W. Herbert McHarg
Attorneys for Castle Valley
Special Services District

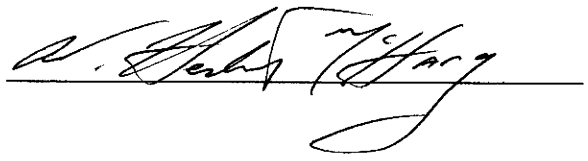
NIELSEN & SENIOR, P.C.

J. Craig Smith
David B. Hartvigsen
Attorneys for North Emery Water Users Association and Huntington-Cleveland Irrigation Company

CERTIFICATE OF SERVICE

I hereby certify that on this 8 day of May, 1997, I have caused to be sent, through the United States mail, first-class, postage prepaid, a true and correct copy of the foregoing OBJECTORS' JOINT POST-INFORMAL MEMORANDUM addressed as follows:

F. Mark Hansen, Esq.
624 North 300 West, Suite 200
Salt Lake City, UT 84103



F. Mark Hansen, #5078
624 North 300 West, Suite 200
Salt Lake City, Utah 84103
Telephone: (801) 533-2700

Carl E. Kingston, #1826
3212 South State Street
Salt Lake City, Utah 84115
(801)486-1458

Attorneys for Co-op Mining Company

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**CLOSING ARGUMENT** Docket No. 95-025 Cause No. ACT/015/025

INTRODUCTION

Co-op incorporates by reference its Permit, with all attachments, exhibits, addenda and revisions, including all material relating to hydrology, as if fully set forth here.

This matter is before DOGM on Water Users' objection to Co-op's automatic five-year permit renewal. Water Users contend Co-op's permit should not be renewed, or should be modified to include additional provisions relating to replacement of water sources. Co-op's entitlement to permit renewal is governed by Utah Code Ann. §40-10-9(4)(a), which provides:

> Any valid permit issued pursuant to this chapter shall carry with it the right of successive renewal upon expiration with respect to areas within the boundaries of the existing permit. The holders of the permit may apply for renewal, and the renewal shall be issued (but on application for renewal the burden shall be upon the opponents of renewal), subsequent to fulfillment of the public notice requirements of Sections 40-10-13 and 40-10-14 unless it is established that and written findings by the division are made that:
> (i) The terms and conditions of the existing permit are not being satisfactorily met;
> (ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
> (iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
> (iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
> (v) Any additional revised or updated information required by the division has not been provided.

The Board has adopted rules implementing this provision. *See* R645-303-233.100 to 233.200.

Water Users have the burden to prove Co-op is not entitled to automatic renewal. Because Water Users have failed to prove any of the above statutory exceptions to renewal apply, Co-op is entitled to renewal of its permit as a matter of law.

ARGUMENT

I. WATER USERS' CLAIMS ARE BARRED BY COLLATERAL ESTOPPEL.

At the informal conference, DOGM raised the question:

> What effect, if any, do the Board's actual findings in a case which is not this case but in a mine which is this mine, and its's the same springs and the same basic issues, to what extent is the Division controlled by those findings of fact?

[Tr.II p.191] That question is expressly answered by Utah Supreme Court decisions adopting the doctrine of res judicata and collateral estoppel.

Res judicata and collateral estoppel are the law in Utah. Searle Bros. v. Searle, 588 P.2d 689 (Utah 1978); Salt Lake Citizens Congress v. Mountain States Tel. & Tel., 846 P.2d 1245 (Utah 1992); State v. Sims, 881 P.2d 840 (Utah 1994); Sevy v. Security Title Co., 902 P.2d 629 (Utah 1995); Jones, Waldo, etc. v. Dawson, 923 P.2d 1366 (Utah 1996). The doctrine is "designed to prevent the relitigation of issues that have been fully adjudicated." State v. Sims at 843. It applies "when there has a been a prior adjudication of a factual issue and an application of a rule of law to those facts." Salt Lake Citizens at 1251-52.

Collateral estoppel, or issue preclusion, is a branch of res judicata. Sevy at 632. Collateral estoppel "arises from a [d]ifferent cause of action and prevents parties or their privies from relitigating facts and issues in the second suit that were fully litigated in the first suit." Sevy at 633 (*quoting* Searle at 690). Moreover, "Although initially developed with respect to the judgments of courts, the same basic policies, including the need for finality in administrative decisions, support application of the doctrine of res judicata to administrative agency determinations. Indeed, the doctrine of res judicata has been applied to administrative agency decisions in Utah since at least 1950. '[T] principles of res judicata apply to enforce repose when an administrative agency has acted in a judicial capacity in an administrative proceeding to resolve a controversy over legal rights and to apply a remedy.' " Salt Lake Citizens at 1251 (citations omitted).

If the elements of collateral estoppel are met, DOGM must apply, and Water Users are bound by, the Board's findings on issues already litigated. Collateral estoppel has four elements. First, were the issues decided in prior adjudications identical with those in the present action? Second, was there a final judgment on the merits? Next, were Water Users parties to the prior adjudication? Finally, were the issues competently, fully, and fairly litigated? Searle at 590; Sevy at 632; Jones, Waldo at 1370. All four elements are satisfied here.

First, an identical issue in both this proceeding and the Board Tank seam hearing is whether Co-op's permit area and Big Bear and Birch Springs are hydrologically isolated. Another identical issue in both proceedings is the adequacy of baseline and other data in Co-op's permit. Yet another identical issue is whether Co-op must prospectively identify a replacement water source.

Second, Utah Code Ann. Section 63-46b-16(1) provides, "The Supreme Court ... has jurisdiction to review all final agency action ...." On June 13, 1995 the Board issued its final order, finding that there was no hydrological connection between the permit area and the springs, that Co-op's baseline and other permit data were adequate, and that Co-op is not required to identify replacement water sources. Water Users petitioned the Utah Supreme Court to review the Board's order. On December 31, 1996 the Utah Supreme Court affirmed the Board's Order. Castle Valley Special Service Dist. V. Utah Board of Oil, Gas & Mining, 307 Utah Adv. Rep. 10 (December 31, 1996). The Board's Order, affirmed by the Supreme Court, is a final judgment on the merits.

Next, Water Users are the same entities who objected to Co-op's Tank seam application.

Finally, the issues were fully and fairly litigated. Water Users argued to the Utah Supreme Court that the Board erred in failing to require Co-op to identify a replacement water source, and that they did not have an adequate opportunity to litigate the hydrological connection *vel non* between Co-op's permit area and the springs. (Water Users did not challenge the adequacy of Co-op's baseline and other data on appeal.) As to the hydrology issue, the Court reviewed the record, rejected Water Users' argument, and expressly held not only that Water Users had full notice and an opportunity to be heard, but that Water Users actively litigated the issues:

> Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda.

Castle Valley, 307 U.A.R. at 13. Water Users had also full opportunity to litigate the adequacy of Co-op's baseline and other data in Co-op's permit. The requirements regarding replacement water were a matter of statutory construction, and the Court held the Board had construed the statute correctly. Those issues were competently, fully, and fairly litigated.

The purpose of collateral estoppel is to protect a litigant from the burden of multiple relitigation of identical issues, and to promote judicial economy, by applying a rule of law that forestalls repetitive litigation of the same issues. There must come a time when DOGM finds enough is enough, and applies collateral estoppel to bar further trial on issues already resolved by

DOGM, the Board and the Utah Supreme Court. That time is now. The springs are hydrologically isolated from the permit area. Co-op's baseline data are adequate. Co-op need not identify a replacement water source. The Utah Supreme Court has affirmed the Board's holdings, and Utah law clearly holds that Water Users are barred by collateral estoppel from retrying those issues. Co-op asks DOGM to include in its decision a specific ruling that collateral estoppel applies to bar further litigation of those issues, in this and in all future proceedings before DOGM.

II. PETITIONERS HAVE NOT MET THEIR *PRIMA FACIE* BURDEN OF PROOF.

Under U.C.A. §40-10-9(4)(a), Co-op is entitled to renewal of its permit as a matter of law unless Water Users affirmatively prove:

(i) The terms and conditions of the existing permit are not being satisfactorily met;
(ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
(iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
(iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
(v) Any additional revised or updated information required by the division has not been provided.

Unless Water Users offer *prima facie* proof in their case in chief, sufficient to overcome the evidence already in the record supporting renewal, Co-op is entitled to have its permit renewed without any further evidence. The record reveals Water Users failed to meet their burden to prove either that any permit term or condition is not being satisfactorily met; or that Co-op's present operation violates its approved plan; or that renewing Co-op's permit would substantially jeopardize Co-op's responsibility on its permit areas; or that Co-op's bond will not continue in effect; or that Co-op has omitted any additional information required by DOGM.[1]

---

[1] This matter raises no issue arising from an alleged surface discharge by Co-op seven or eight years ago. On their face, section §40-10-9(4)(a) and R645-303-230 do not contemplate refusing a renewal based on an alleged, but unproven, isolated permit violation in years long past, even before the last renewal. DOGM correctly ruled during the informal conference that whether in 1989-90 Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.149-150] Whatever the merits may be at this late date as to a potential NOV, the question is irrelevant to the decision now before DOGM, which is whether to renew Co-op's permit.

To avoid undue repetition, Co-op attaches hereto and incorporates by reference, as if fully set forth here, the argument made by counsel at the informal conference, that Water Users have not met their *prima facie* burden of proof. [Tr.II p.170-190, 240-246]

III. CO-OP'S PERMIT SATISFIES THE STATUTES AND REGULATIONS.

A. The Permit Area Is Hydrologically Isolated From The Springs.

Even if DOGM should disregard the doctrine of collateral estoppel, Co-op is entitled to renewal of its permit, because the evidence proves (i) The terms and conditions of Co-op's permit are being met; (ii) Co-op's present operation complies with the approved plan; (iii) A renewal solidifies Co-op's responsibility on its permit area; (iv) Co-op's performance bond remains in full force and effect; and (v) Co-op has provided all updated information required by DOGM.

Water Users' opposition to Co-op's permit renewal rests on the premise that a single aquifer underlies both the permit area and the springs, that the aquifer reaches into the Blackhawk formation up to Blind Canyon seam, that Co-op has intercepted that aquifer, and that the springs are adversely affected as a result.

The only thing is, it just ain't so.

Water Users rely on outdated information from USGS publications, and so-called "expert" opinions that are really nothing more than rank speculation. They ignore uncontroverted site-specific facts which prove their premise false. The evidence shows:

Co-op first began mining at Bear Canyon Mine in 1981. Co-op found almost no water until December of 1989, when it first encountered water at the north end of its permit area. Until 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them.

Big Bear Spring's flow rate, as did local precipitation, began declining more than five years before Co-op first intercepted water. As the area has recovered from its drought, so has Big Bear Spring's flow rate. Present flow for Big Bear Spring are near the upper range of the spring's flow

rate data for 1978-79. Nearby surface fracturing indicates a good near-surface hydrologic connection between Big Bear Spring and Bear Creek, and that the primary recharge for Big Bear Spring is likely from Bear Creek.

Birch Spring's flow rate also began to decline about one and one-half years before Co-op first intercepted water. Birch Spring's present flow rate is also near the upper range of the historical flow data for 1978-79. Birch Spring's flow rate also appears highly dependent on how efficiently the spring collects water through an installed "french drain" from seeps along an 80-foot cliff face. Birch Spring's collection system may just need a call from Roto-Rooter.

Other water sources in the general area also declined in flow from the mid/late 1980's to the mid-1990's, began increasing in early 1995, and now are within historical norms — a pattern consistent with precipitation data, as well as the flow rates for Big Bear and Birch Springs.

The permit area is a virtual "knife edge" consisting of cliffs and steep slopes with no flat surfaces to catch and retain precipitation. This topography causes most precipitation to run off immediately, and makes any recharge from the permit area so minute as to be immeasurable.

Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. Blind Canyon Fault has a 200 foot vertical displacement, is visibly dry, is not transmitting water, and is a barrier to water flow. It is filled with gouge, which if exposed to water would dissolve and wash away, indicating the fault has always been dry. If the fault was not plugged, it would divert water away from Birch Spring and form another spring where it meets the surface 800 feet east of Birch Spring. No such spring exists, proving the fault is plugged. Blind Canyon Fault physically isolates Birch Spring from any mining activity in the permit area.

The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers of Mancos shale 50 to 80 feet thick. The Mancos shale is plastic; it flows under pressure or moisture to seal internal fractures. Even if fractures once formed in the sandstone, those fractures would be sealed in the Mancos shale. The shale's hydraulic conductivity is 10,000 times lower than clay liners used in hazardous waste landfills. The Mancos shale tongues are laterally continuous within the permit area. As a result, water in the Star

Point sandstone flows horizontally but not vertically. The water in the upper aquifers moves to the outcrop, where it evaporates.

Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The entire Blackhawk formation is above the Star Point formation. The Blackhawk formation contains layers of shale as well as the coal seams, which are themselves aquitards. These strata form an additional impermeable hydrologic barrier in the permit area.

Some USGS studies posit a "regional aquifer." The assumption is not based on site-specific information, and is incorrect at least in and around Co-op's permit area. The Mancos shale tongues act as confining barriers for water in the Star Point formation. The Spring Canyon, Storrs and Panther members of the Star Point formation each contain separate aquifers, unsaturated at their south end. The three aquifers have separate potentiometric surfaces, and form three hydrologically disconnected groundwater systems. No water was encountered in test holes until they reached the Spring Canyon tongue of the Star Point formation. Co-op has not intercepted water from the Star Point aquifers. The uppermost aquifer's potentiometric surface is below Co-op's mining operation. The aquifer itself is confined within the Spring Canyon member of the Star Point formation, and the upper level of the water contained in that aquifer is a hundred feet below Blind Canyon seam.

Since the aquifers are not vertically interconnected connected, water in the upper aquifers travels horizontally until it appears at the cliff faces. Moisture and efflorescence on the sandstone outcrops confirm this, not vertical flow through nonexistent fractures, is the actual mechanism for groundwater movement in the upper aquifers.

Big Bear and Birch Springs both issue from the base of the Panther (bottom) member of the Star Point formation. In contrast, the water found at the Blind Canyon seam comes from a perched aquifer in a sandstone channel in the Blackhawk formation above Blind Canyon seam. The channel is not hydrologically connected to the Star Point aquifers. The channel enters the mine from the roof, not the floor. The channel neither dips below nor interrupts the Blind Canyon seam, but does spill out in a "flood plain" lip overlying the top of the seam. The water Co-op first intercepted in late 1989 came from that flood plain lip, and stopped flowing when the lip dewatered. Co-op did

not hit the channel proper until April of 1993. Until one reaches the channel at the north of the permit area, the coal seam is dry.

Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the west side of Blind Canyon fault at the Blind Canyon seam/channel elevation (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than water from either the channel or Birch Spring. While the mine channel water is some 1,500 years old, water from Big Bear Spring is "new" (post-atomic testing) water, less than 20 years old, perhaps only days or weeks underground, showing the water sources are not connected. The confirmed ages of the various waters are more links in the chain proving the waters are not interconnected.

As the Board already found, chemical analysis indicates Birch Spring water is chemically dissimilar from water in the mine. For example Birch Spring water tested at twice the TDS content of the channel water, and was considerably more alkaline. Increased sulfur would decrease alkalinity, yet sulfate levels were three times higher in Birch Spring than in mine water; iron concentrations were three times lower. Sodium concentrations were substantially less, while calcium, magnesium, bicarbonate and chloride levels were substantially greater.

The following are known facts, not mere supposition:

- The area began experiencing declining precipitation in the mid-1980's. Big Bear and Birch Springs began declining in flow rates directly after the drought began, years before Co-op encountered any water in its mining operation, and years before Co-op began any dewatering activity that could possibly have affected the springs..
- While the Blind Canyon seam has been dewatering, the general area has recently experienced increased precipitation, and the spring flow rates have also increased to within pre-mining norms.
- The Mancos shale tongues and the three separate Star Point aquifers, the observed surface moisture and efflorescence where the sandstone containing those aquifers outcrops at the surface, the shale and coal layers in the Blackhawk formation, the general dryness of the coal seams throughout the permit area, the known lack of significant fracturing or faulting within the permit area, and the "knife-edge" surface topography, all evidence the permit area does not recharge the springs, but is hydrologically isolated from the springs.
- The presence and characteristics of Blind Canyon Fault, including the presence of gouge in the fault and the lack of a spring where the fault intercepts the surface, establishes the fault as a hydrologic barrier between the permit area and Birch Spring.

- Chemical analysis evidences the channel and Birch Spring waters are dissimilar.
- The known characteristics of the sandstone channel, including the facts that the channel in all places is above Blind Canyon seam, that water in the north of Co-op's permit area enters from the roof and not from the floor, and the respective ages of water from the channel and aquifer waters, show that the channel water is not connected to the Star Point aquifers.
- Radioisotope dating of the waters in the area, including the channel water, the water west of Blind Canyon fault at channel elevation, the aquifers, and the springs, evidence those waters are not interconnected, and that Big Bear Spring and the channel water in particular are not connected.
- The calculated pre-mining flow rate of 1.2 g.p.m. for the channel water, which is the only significant water source ever encountered in Co-op's mining operation, is insufficient to account for the observed decreases and more recent increases in spring flow.

The only reasonable conclusion to be drawn from the evidence as a whole is the one contained in Co-op's PHC and in DOGM's CHIA, the one previously found by the Board as a fact, and affirmed by the Supreme Court — that the permit area is indeed hydrologically isolated from the springs, and that Co-op's mining operation will not cause material damage to the hydrologic balance outside the permit area.

B. Water Users' Theories Depend on Demonstrably False Assumptions.

Water Users' theories and expert "opinions" require making assumptions which ignore the known facts. Applying the facts to Water Users' theories leads to absurd results:

Elementary head (water pressure) calculations show for the decline in flow rates of Big Bear and Birch Springs to be attributable to Co-op dewatering a regional aquifer feeding the springs, Co-op would have to have hit a water table which is some 300 feet higher than where the upper Star Point aquifer is known to be, and Co-op would have to have intercepted significant water a mile or more farther south than where it did.

Calculations show the pre-mining channel flow rate was on the order of 1.2 g.p.m. The combined flow from Birch and Big Bear Springs is on the order of 200 g.p.m. If the spring water came from the channel, it would have been dewatered ages ago. That the channel still contains a great deal of 1,500 year old water shows the channel is not the source of the springs' water.

If Big Bear Spring was recharged from the permit area, water would, while traveling a short way horizontally, have to: (a) enter the ground in the permit area; (b) flow through hundreds of feet

of sandstone, shale and coal in the Blackhawk formation, which mining has proven completely dry and not materially fractured; (c) take 1,500 years to reach the sandstone channel ; (d) take an indeterminate time to percolate to the top of the Star Point formation, then through aquifers containing water at least 500 years newer than itself; (e) flow through at least two impermeable layers of shale and clay totaling 100 to 200 feet thick; then (F) appear in Big Bear Spring as water having been underground for less than 20 years. If Birch Spring was recharged from within the permit area, water would have to complete the same general obstacle course described above for Big Bear Spring; and in addition cross Blind Canyon fault, which must at the same time be both open (to permit the water to cross the fault) and closed (to prevent the water from issuing where the fault reaches the surface). It would also have to go through a perched aquifer with 5,500 year old water, and flow thousands of feet horizontally, before appearing at the surface as 1,500 year old water. It just couldn't happen that way.

Water Users' theory assumes the permit area is extensively fractured. Observations of actual conditions found in the course of mining prove that assumption is incorrect, that the area contains only a very few minor fractures, most of which are near the surface.

Since the channel water and Birch Spring water are estimated at about the same age, for the channel water to appear at the spring, the water would have to take 1,500 years to reach the channel, then travel a similar distance from the channel to the spring in virtually no time. This could not occur unless the area has almost no fractures north of the permit area, where Water Users claim a major "fracture zone" exists, but has abundant fractures in the permit area itself, which by direct underground observation is known to be untrue. If the area was fractured as Water Users claim, either the spring water would have to be hundreds of years older than the channel water, which it is not, or the channel water would have to be hundreds of years than it is.

Water Users' theory not only cannot account for the observed facts regarding the area's geology and hydrology, it depends for its very existence on assumptions the known facts prove to be untrue. Again, the only reasonable conclusion to be drawn from the evidence as a whole is that the permit area is hydrologically isolated from the springs.

C. Co-op's Permit Satisfies The Specific Questions DOGM Has Raised Regarding Interpretation Of The Regulations.

1. The Regulations Require More Than A *De Minimis* Impact.

The question is whether Co-op is meeting the conditions of its existing plan. The controlling law, Utah Code Ann. §40-10-11(2)(c) and R645-300-133.400, requires only that Co-op's operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The related regulations merely expound on this basic requirement. For example:

> R645-301-724.300. Each application will include geologic information ... to assist in: 724.320. Determining ... whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-724.600. ... [T]he applicant will provide a survey that shows ... whether subsidence, if it occurred, could cause material damage or diminution of reasonably foreseeable use of aquifers or areas for the recharge of aquifers.
>
> R645-301-729.100. The CHIA will be sufficient to determine ... whether the proposed coal mining and reclamation operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-742.311. All diversions will be designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area ...
>
> R645-301-750. All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area ...

The regulations taken as a whole, from the initial permit application through reclamation, including hydrologic assessments in the PHC and CHIA, underground and surface operation of the mine, discharges and diversions, subsistence control, and all preventative, remedial or monitoring measures, do not require a permittee to demonstrate there will be no impact on hydrology outside the permit area. Indeed, the regulations appear to assume there will be some impact. They contemplate the issuing and renewal of permits designed to minimize rather than eliminate hydrologic disturbances within the permit area, and to prevent material rather than all damage to the hydrologic balance outside the permit area.

Nothing in the regulations requires DOGM or Board action on a permit renew based on a *de minimis* impact to the hydrologic balance outside the permit area. The concept of "material damage" contemplates more than a *de minimis* impact. The regulations clearly allow the renewal

of a permit without modification even with some damage to the hydrologic balance, if the damage is less than material. Under U.C.A. §40-10-6.5(2), Board regulations may not be more stringent than the corresponding federal regulations. 30 CFR Parts 715.17, 717.17 and 817.41 also require only that mining activities be conducted "to prevent material damage to the hydrologic balance outside the permit area ..."

R645-301-731 in particular provides that DOGM may require additional measures to assure that material damage to the hydrologic balance outside the permit area is prevented. That language on its face bars DOGM from requiring a permittee to prevent even a *de minimis* impact.

Co-op sees the idea of a *de minimis* impact as not so much a question of law as one of fact. Big Bear Spring flow rates have varied greatly over the past two years, from a low of 76 g.p.m. in mid-1995 to a current flow rate of about twice that amount. The variation cannot not be accounted for by the 1.2 g.p.m. pre-mining flow rate from the sandstone channel. It fact, the variation cannot be explained at all by assuming the Panther aquifer is hydrologically connected to the sandstone channel. Obviously, some other mechanism must be a primary cause of variation in the spring. Since another mechanism, most likely variations in precipitation, must necessarily be responsible for variations on the magnitude shown, and since the evidence does not point to the channel as a likely source of spring water, it is impossible to say with any confidence that any variation is spring flow is attributable to any part of the 1.2 g.p.m. pre-flow rate from the channel. With the burden of proof on Water Users, the question must be resolved in Co-op's favor. The evidence is simply insufficient to support a finding that any of the 1.2 g.p.m. would eventually make its way to Water Users' springs.

2. DOGM May Not Order Water Replacement Absent A Showing An Adverse Impact Has Already Occurred.

Water Users are not entitled to an order requiring Co-op to identify a replacement water source. Petitioners argue an unspecified future event may have some unknown impact on Big Bear Spring or Birch Spring. No one has a crystal ball, and the Regulations do not require a specific contingency plan for every possible future event. R645-301-731.800 addresses the relief Petitioners

seek, that CWM replace the water supplier of an affected land owner "where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities." Even assuming Water Users qualify as owners of affected real property, they have offered no evidence whether Co-op's permit provides for compliance with this requirement. As Co-op and DOGM both pointed out to the Board in the Tank seam hearing, the permit does so provide.

The Utah Supreme Court has already construed similar statutory language against Water Users. In Castle Valley Special Services District v. Utah Board of Oil, Gas & Mining, 307 U.A.R. 10(Dec. 31, 1996) (the Co-op Tank Seam case), Water Users argued that, under 30 U.S.C. §1309(a), Co-op should be required to identify a replacement water source. The Board declined to require Co-op to do so. On appeal, the Utah Supreme Court expressly held a statutory requirement to replace water "which has been affected" by Co-op's operation "does not authorize water resource identification as a preventative measure." Id. at 11. The language on its face applies only in the past tense. "In short, there must be a showing that a water supply has been affected by underground mining coal mining operations for the statute to impose a requirement of replacement." Id. At 12. The Supreme Court also affirmed the Board's finding of fact that Water Users had failed to prove that Co-op has damaged the springs." Id. DOGM is obliged under collateral estoppel to apply that same fact here.

The Regulations do not require CWM to prove that Big Bear and Birch Springs will be completely unaffected by any possible scenario. There is no requirement even for information on water availability and alternative water sources unless DOGM finds that mining the Tank seam would cause contamination, diminution, or interruption of the springs. The evidence does not support such a finding.

PROPOSED FINDINGS OF FACT

Co-op requests that DOGS find the following facts from the evidence in the record.

The Record On Co-op's Tank Seam Application

1. In 1981 Co-op first began mining coal in Bear Canyon Mine. [Board Tank Seam hearing Transcript (hereafter Board Tr.) p.168] For about 8 years Co-op found no significant water in the mine. Before 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. In 1991 Co-op first began discharging between 30 and 60 gallons per minute. [Board Tr. 184-185; Board Ex. C p.2-13, 14, Tables 2-5 & 2-6]

2. In 1993 Co-op applied for a permit revision to allow mining the Tank seam. The application included Appendix J-7, "Probable Hydrologic Consequences of Mining at Bear Canyon Mine, Emery County, Utah," and Appendix 7-N, "Revised Hydrogeologic Evaluation of the Bear Canyon Mine Permit and Proposed Expansion Areas." Water Users objected, and on December 9, 1993 participated in a DOGM informal conference. On July 20, 1994 DOGM issued a Technical Analysis which incorporated the finding in DOGM's revised CHIA that

> "The review of water source information, the graphical tracking of precipitation versus flow, the testing of the spring water and mine water quality for tritium dating, analysis of water quality chemical data using Stiff and Piper diagrams, and the known presence of three separate piezometric surfaces ... leads to a conclusion of no significant material damage to the Hydrologic Balance outside the permit area."

The Division then approved CWM's application.

3. Petitioners appealed to the Board, which held a formal evidentiary hearing. Co-op rather than Water Users bore the burden of proof at that hearing. Water Users gave evidence on their theory that mining the Tank seam would affect the springs because the permit area was rife with vertical faults and fractures, that a single aquifer underlaid the area, and that Co-op's mining operation had intercepted the aquifer and was impacting the springs — in other words, the same theory Water Users argue to DOGM in this proceeding. [Board Tr. 103-164] Co-op presented evidence to support its claim that mining the Tank seam would not adversely affect the springs

because the permit area is hydrologically isolated from the aquifer feeding the springs. [Board Tr. 207-267, 280-368]

4. The evidence showed there is no "regional aquifer" in the area. Underlying the permit area are three distinct aquifers, each separated from the others by thick layers of Mancos shale. The shale is plastic; it flows under pressure to seal internal fractures. Even if fractures are formed in the sandstone, those fractures seal in the Mancos shale, which therefore isolates the permit area from the springs. The springs discharge from the bottom aquifer. The top boundary of the upper aquifer is well below Blind Canyon seam even at the northernmost boundary. Water in the mine is from a perched aquifer above Blind Canyon seam, and is not part of the aquifer feeding the springs. [Board Tr. 208-209, 215, 223, 255-260, 284-285, 288-289, 311-313, 319-326, 346, 358-362,367-368; Ex. D p.4-8] Water Users conceded if the aquifers were not connected by faults, water from the upper aquifers would appear at the cliff faces. That is just what occurs. [Board Tr. 168-170; Ex. 14; Ex.D p.2-22 — efflorescence on sandstone outcrops shows slow groundwater movement; water evaporates on contact with the atmosphere.]

5. The permit area surface is a virtual "knife edge" with no flat surfaces to catch and retain precipitation. The steep topography causes most precipitation to run off immediately. [Board Ex.1,6; Ex.D Fig.1-1,2-3] Tritium tests proved Big Bear spring water is of a different age, and therefore hydrologically isolated, from water in the mine. [Board Tr. 287-288, 368] A major fault, Blind Canyon Fault, was shown to physically isolate Birch Spring from the permit area. [Board Tr. 212-213, 265-267, 293-294, 365-366] Chemical testing also indicated Birch Spring is hydrologically isolated from Co-op's mining operations [Board Tr. 290, 303-304, 326-327, 367; Board Ex.18; Ex. D p.2-25,31-34,39

6. DOGM carefully reviewed Co-op's application and found (a) the application was complete and accurate; (b) Co-op had complied with all requirements of the state program, (c) Co-op's permit had the baseline data required for approval of the permit; (d) the springs are hydrologically disconnected from the permit are; and (e) the proposed operation was designed to

prevent material damage to the hydrologic balance outside the permit area. (Co-op's present permit is no less complete.) [Board Tr. 368-379, 410-411, 415, 417-418]

7. On June 13, 1995 the Board issued its Order upholding DOGM's approval of Co-op's application to mine the Tank seam, incorporated by reference as if fully set forth here. Water Users appealed to the Utah Supreme Court, which in a December 31, 1996 Opinion affirmed the Board's Order in its entirety. Under the doctrine of collateral estoppel [Point I *infra*],DOGM is bound by the Board's Order and the Utah Supreme Court's Opinion affirming the Order.

Co-op's Permit Area

8. Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The coal is an aquitard. There is no hydrologic connection between the coal seams. [Tr.III p.49, 58-59] The Blackhawk formation rests on the Spring Canyon (upper) member of the Star Point formation. The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers Mancos shale 50 to 80 feet thick. The Mancos shale tongues are laterally continuous within the permit area. The Blackhawk formation also contains many layers of shale as well as the coal seams. [Tr.III p.129, 162, 175, 238, 283; Ex. C-7] These strata form a horizontal barrier between the Blackhawk formation and the Star Point Panther member. [Tr.III p.129, 157; Ex. C-7]

9. Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. [Tr.III p.137] Blind Canyon Fault is visibly dry [Tr.III p.34-36, 92, 139], is a barrier to water flow, not a conduit for water, and is not transmitting water. [Tr.III p.43-44, 49, 115,276] The Blind Canyon Fault is filled with gouge, which if exposed to water would dissolve and wash away, further indicating the fault has always been dry. [Tr.III p.35, 115; Ex. C-6] There is no water coming into the mine at the Bear Canyon fault. [Tr.III p.270]

10. Sandstone may fracture in response to tectonic forces. Shale is plastic — it flexes, and does not fracture at the same rate as sandstone. What fractures do occur in the shale seal when exposed to moisture or pressure. [Tr.III p.140-141, 217] The shale's hydraulic conductivity is 10^{-11} to 10^{-12} cm/sec., a million times less than sandstone, and 10,000 times lower than clay liners

used in hazardous waste landfills. [Tr.III p.213-214] As a result, water in the Star Point sandstone flows not vertically but horizontally until it reaches the surface. [Tr.III p.147-148, 190, 192] The water in the upper aquifers moves to the outcrop, where it evaporates. [Tr.III p.193-195] Observations during the October 17, 1996 mine site visit confirmed the presence of moisture at the exposed sandstone faces, showing the water in the upper aquifers indeed flows not vertically, but horizontally until it discharges by seeping out and evaporating at the outcrop.

11. Some USGS studies have assumed a "regional aquifer." The assumption was not based on site-specific information, and is incorrect at least in and around Co-op's permit area. [Tr.III p.87-88] The Mancos shale tongues act as confining barriers for water in the Star Point formation. [Tr.III p.131] Each of the three aquifers has a separate potentiometric surface. [Tr.III p.132, 174] They form three hydrologically disconnected groundwater systems. [Tr.III p.241] Test holes have established there is no water in the Blackhawk formation; no water was encountered until the test holes reached the Spring Canyon tongue of the Star Point formation. [Tr.III p.247] The uppermost potentiometric surface is in the Spring Canyon sandstone, well below the Blackhawk formation where the coal seams are located. [Tr.III p.219; Ex. C-7]

12. The Star Point sandstone water flows generally southward. [Tr.III p.199] Recharge occurs northward outside the permit area. [Tr.III p. 201, 217, 243] The Tank seam is completely dry throughout. [Tr.III p.8, 53-54] The Blind Canyon seam has been extremely dry. Co-op found almost no water until December of 1989, when it intercepted water at the north end of its permit area. [Tr.III p.8,12,30] That water is in the Blackhawk, not the Star Point formation. [Tr.III p.240] Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them. [Tr.III p.139-140] The water Co-op encountered in the Blind Canyon seam comes down from the roof, not up from the floor. [Tr.III p.33-34, 137, 158]

13. Co-op has not intercepted water from the Star Point aquifers. [Tr.III p.101] The water in the mine comes from a perched aquifer in a sandstone channel above Blind Canyon seam. [Tr. I p.103; Tr.III p.37-38, 90, 133-136, 156; Ex. C-5] The channel is not hydrologically

connected to the Star Point aquifers. [Tr.III p.49, 247] The channel enters the mine from the roof, not the floor. [Tr.III p.80, 247] The channel does not interrupt or dip below the Blind Canyon seam, but does spill out in a "flood plain" lip over the top of the seam. [Tr.III p. 133-136] Until one reaches the channel, the coal seam is dry. [Tr.III p.56] The water Co-op first intercepted in late 1989 came from the channel's flood plain lip. [Tr.III p. 104-105, 233] Co-op did not hit the channel itself until April of 1993. [Tr.III p.202; Ex. C-1]

14. Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the other side of Blind Canyon fault (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than the channel water. [Tr.III p.40, 70, Tr.III p.39, 51, 248; Ex. C-3]

15. Calculations using the age and intra-mine flow show the pre-mining channel flow rate was on the order of 1.2 g.p.m. This is minuscule considering the volume of water contained in the aquifer. [Tr.III p.45-46; Ex. C-5] Flow through the channel is blocked by Blind Canyon fault on the west, by Bear Canyon fault on the east, and by Blind Canyon seam below. [Tr.III p.58-59, 92-93] Before mining, that 1.2 g.p.m. of water may have been discharging to a spring in the permit area, to a creek, or to evaporation at the outcrop. [Tr.III p.46]

16. If the springs were fed from the channel, they would have dewatered the channel ages ago. [Tr.III p.83] The fact that the channel still contains a great deal of water further indicates the channel is not the source of the springs' water.

Big Bear And Birch Springs

17. Big Bear Spring and Birch Spring both issue from joints in the base of the Panther member of the Star Point formation. [Tr.I p.99; Tr.III p.139, 159, 240]

18. Comparisons of spring flow and precipitation data show Big Bear Spring responds to precipitation. [Tr.III p.189, 207-209; Ex. C-10] According to Water Users' own data, Big Bear Spring's flow rate, as did local precipitation, began declining as early as 1984, five or more years before Co-op first began intercepting water in its mining operation. As the area has

recovered from a ten-year drought, Big Bear Spring's flow rate has also recovered, from a low of 76 g.p.m. in mid-1995 to 148 g.p.m. in late 1996. Present flow rates are well within the range of the spring's flow rate data for 1978-79, taken before the local drought and before Co-op began mining. [Tr.1 p.30; Tr.III p.206-207; Ex. 4 Plates 2, 7; Ex. C-10]

19. Water Users have not tested the water in Bear Creek. [Tr.III p.298] Nearby surface fracturing indicates a good hydrologic connection between Big Bear Spring and Bear Creek. The primary recharge for Big Bear Spring is likely from Bear Creek. [Tr.III p. 50, 89, 116, 162]

20. Birch Spring is some 800 feet to the west of Co-op's permit area and is physically separated from the permit area by two major faults, including Blind Canyon fault, which acts as a barrier to water flow. [Tr.III p.138; Ex. 5; Ex. C-8, C-9; observations from site visit]

21. Birch Spring flow is also precipitation related. [Tr.III p.189] Its flow rate began to decline in mid-1988, about one and one-half years before Co-op first began intercepting water. [Ex. 4 Plates 1, 7] Birch Spring's flow in recent years is near the upper range of the historical flow data for 1978-79. [Tr.III p.209-211. Ex. C-11]

22. The Board's June 13, 1995 Order specifically found Little Bear Spring was not useful as a control. Even so, Water Users' data show Little Bear and Upper Tie Fork Springs declined in flow from the mid/late 1980's to the mid-1990's, and began increasing in early 1995 — a pattern similar to that shown in the precipitation data, and the flow rates for Big Bear and Birch Springs as well as Huntington Creek. The common factor is the area's weather pattern. [Ex. 4 Plates 1, 2, 3, 4, 6] The spring hydrographs show the beginning declines in flow at the springs were immediately preceded by spikes (or, in Plate 3, a discontinuity) in mid-1988. At the time Co-op had not encountered or begun discharging water from the mine. Water Users' expert testified the spikes were likely caused by an earthquake known to have occurred in the area just prior to the spikes and resulting drop-offs in spring flow. [Tr.II p.107; Ex. 4 Plate 5]

23. If the decline of Big Bear and Birch Springs was the result of Co-op denaturing a regional aquifer feeding the springs, Co-op would have hit water where the potentiometric surface first intersects the coal seam. For this to have occurred the upper water table would have been

about 300 feet higher than it actually is, and Co-op would have intercepted significant water a mile farther south than where it did. [Tr.III p.220-222]

The 1989-90 Spring Anomalies

24. In 1990 Co-op applied for a permit renewal, which Water Users opposed due to alleged contamination of the springs and failure to safeguard against future contamination. [Water Users' 03/13/91 and 03/21/91 memoranda] Water Users relied on the same alleged anomalies in the springs now being raised again by Water Users in this proceeding. DOGM conducted an informal conference, and on May 20, 1991 entered an Order which provides in part:

> FINDINGS OF FACT
>
> 4. Geologic and hydrologic evidence provided by the parties suggests that the potentiometric surface of the Blackhawk-Star Point aquifer is below the level of current mining in the Bear Canyon Mine.
>
> 5. The necessary information is available for evaluation of the hydrology within the existing Bear Canyon Mine workings.
>
> 6. There is no evidence that mining within the presently permitted coal seam in the Bear Canyon Mine will impact the potentiometric surface of the Blackhawk-Star Point aquifer.
>
> CONCLUSIONS OF LAW
>
> 19. Protestants have set forth factual contentions to support their allegations that four of the five statutory exceptions to renewal are present. The Division concludes that protestants have failed to support these allegations.
>
> ORDER
>
> 22. The Permit for Co-op Mining Company's existing mining operation at the Bear Canyon Mine (ACT/015/025) is hereby renewed ....

Water Users did not appeal DOGM's Order.

25. DOGM has already ruled in this proceeding that whether Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.150]

26. There is no limit to the amount of water that can be discharged under a permit. There never has been such a limit to Co-op's permit. [Tr.III p.292] Co-op did not have a water discharge point by the ventilation fan. Co-op did not discharge water into the old workings in the summer of 1989. Co-op did not even encounter water in the mine until December of that year. [Tr.III p.292, 294] The spring anomalies remains a mystery which will likely never be resolved.

CONCLUSION

Based on the above, Co-op asks DOGM to deny the relief sought by Water Users, and to reaffirm its prior decision to approve Co-op/s permit renewal.

DATED this 8 day of May, 2997.

Attorney for Co-op Mining Company

CERTIFICATE OF SERVICE

I certify on May 8, 1997 I caused the above document to be served by first class mail to the following:

J. Craig Smith
David B. Hartvigsen
NIELSEN & SENIOR
60 East South Temple, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
North Emery Water Users' Association and
Huntington-Cleveland Irrigation Company

Jeffrey W. Appel
Benjamin T. Wilson
COLLARD, APPEL & WARLAUMONT
9 Exchange Place, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
Castle Valley Special Service District

2006p.006

Page 170

downgradient. And if it builds up with water, it's going to start seeping to the surface.

MR. MAYO: And the specific impacts in the mechanics to Birch Spring and how they may differ from those to Big Bear Spring?

THE WITNESS: I think the differences to Big Bear Spring is that you're diverting water away from the western side of the mine and the northern part of the mine that normally would be recharging the fracture zone in that area. So you're essentially moving it away from a recharge area for the spring and putting it into Bear Canyon or the lower Bear Canyon here in Huntington Canyon.

MR. MAYO: Okay.

MR. CARTER: Thank you. Mr. Hansen.

MR. M. HANSEN: Co-op Mining Company moves for a decision to overrule the water user's objection and deny all the relief water users seek and to affirm their prior decision to approve the renewal of Co-op's mining permit as it exists.

The basis for this motion is this: The water users claim to be parties with an interest that is or may be adversely affected by the mining activity and on that basis brought their objection and requested an informal conference. They are entitled to have their

Page 172

with one exception, was the same information that was already in the record, was already submitted to the Division, either at the time of Co-op Mine's last permit renewal or at the time that the Division and subsequently the Board decided to approve Co-op Mine's application for a significant permit revision to permit mining the tank seam.

So with one exception, all of the evidence that Mr. Leamaster offered was already in the record. None of that information should be sufficient to justify the Board changing its mind because it was already before the Board when it made its decision.

The one exception is Mr. Leamaster's testimony that Big Bear now is flowing at approximately 148 gallons per minute. He testified that in May of 1995 that that water flow got as low as 76 gallons per minute. And he testified before the board in October of 1994 that at that time that the water flow level in Big Bear Spring was I believe 118 gallons per minute.

In other words, Mr. Leamaster's testimony on the water flow out of Big Bear Spring has established that the water level has increased. It has increased 25 percent over what it was two years ago this same season. It's doubled over what it was this summer. And all the time the water was continuing to dewater in the mine.

Page 173

I would submit that Mr. Leamaster's evidence not only does not go anywhere towards meeting the water user's burden of proof, it actually undermines their case and decreases their likelihood of their being able to have met their burden of proof.

The next witness that the water users called is Mr. Jack Stoyanoff. I have looked through his entire testimony, and I don't see anything in his entire testimony that wasn't already before the board. So nothing that Mr. Stoyanoff said was anything other than cumulative of evidence that the Division already had.

The next witness that the water users called was Mr. Kay Jensen. He testified only to matters that were also before the Division at the time, and his testimony had very little relevance to what was going on in this case. It had no relevance to what the impact of mining would have in the case. Again his testimony does nothing to meet and satisfy the water user's burden of proof.

The bulk of the water users' evidence in this informal conference was given by Mr. Peter Nielsen, and we need to examine some of his testimony fairly closely. I would state in beginning that Mr. Nielsen's expert opinions are exactly the same expert opinions that Mr. Bryce Montgomery gave before the Division and before

Page 174

the Board during the tank seam permit application. They're the same opinions based on essentially the same facts, and to the extent, to that extent the Board and the Division have already ruled against the water users on all of those issues.

We do need to look at some of the specific things that Mr. Nielsen testified to.

Mr. Nielsen testified that there was a fractured zone stated in the U.S. Geologic Survey reports. He did not offer any evidence, any hard evidence as to what that fracture zone consisted of, exactly where that fracture zone was located, how severe that fracture zone is.

In the tank zone hearing, which I will call that, that was the board hearing on the significant permit application for mining the tank seam, the evidence was produced that in fact Co-op Mine had already mined to the northern end of its permit area within the Blind Canyon seam, had developed that seam, had done its cross cuts and its haulage ways and did not have to rely on theories, did not have to rely on USGS reports as to what the fractures and faults were in that area.

Based on their mining within the permit area, they had already established as a fact based on personal knowledge that the permit area is not heavily

Page 175

fractured. In fact there are very few fractures in the mine. In most of the areas the floor is stable, the roof is stable. Very few if any fractures are encountered.

So it's fine to talk about theories about how heavily the area is fractured. The fact is that it is not. And that is a matter that is already in the record. We should not have to go forward and reestablish that fact in the record. That area is not fractured.

Mr. Nielsen testified that there is a single aquifer, general regional aquifer underlying the whole area. That is the same opinion that Mr. Bryce Montgomery offered at the tank seam hearing. The evidence that Mr. Nielsen relied on is the very same evidence that Mr. Montgomery relied on before.

And again in the tank seam hearing the Co-op Mine offered contrary evidence as to the area in geology. That evidence is already in the record. That evidence establishes that there is not one single regional aquifer underlying the entire area within the permit area.

At least there is a bottom aquifer from which the springs emanate. Above that aquifer is a layer of shale. Above that is another layer of sandstone which contains a separate aquifer which is not saturated. Above that layer of sandstone is an additional layer of

Page 176

shale, and above that is another sandstone layer which again contains a different aquifer which is not saturated.

And the water encountered by Co-op Mine during its mining operations is in that top aquifer, that the top aquifer is separated from the lower aquifer which feeds the springs by two layers of sandstone and two layers of shale.

The evidence before the Board in the tank seam hearing was also that the shale, those two layers of shale, which are about 50 feet deep, are not fractured, that the shale is plastic in character, which means that under pressure it flows together. So even if fractures exist, the subsequent pressure seals those fractures off and makes the layers impervious.

The board had that information before in the tank seam hearing. The board found as a fact that to be the case. Again Mr. Nielsen has given contrary opinions, but it's not based on any evidence that would justify the Division overruling the Board on that particular finding.

We are left with a conclusion that the Division is bound by in this case that the aquifer that the mine has encountered during mining operations is not the same aquifer that is feeding the springs. That has

Page 177

already been established. The water users have done nothing to come forward and disprove that particular finding of the Board. The mine should not have to go forward and reprove that same point that they've already proved once.

We have heard somewhat again about this incident that occurred in late 1989, early 1990, where there was an anomaly in the water flow, the water quantity and the water quality out of Birch Spring. Mr. Nielsen has given an opinion that that resulted from discharge from one of the mine portals. He's also stated that probably that water came from Trail Canyon.

Again that evidence is inconclusive. We still don't know based on the evidence that has been submitted what caused that anomaly, whether it was from the old abandoned Trail Canyon Mine seams, in which case it is totally irrelevant, or whether it came from the current mining canyon operation. And again the only thing we have at this point is assumptions, speculations and opinions on that point.

But let's assume that the argument that the water users are trying to make on that point is true, for the sake of argument. If we assume that in November or December of 1989 the Co-op Mine did discharge water out of that portal, what is the consequence to the Division's

Page 178

decision today whether or not to renew the permit? That's the question.

Assuming what the water users claim to be the case, that was not an event that was directly -- would have been directly resulting from the mining activities, but it would have been a single decision by a person or persons, identities unknown, to do something that would constitute a violation of the permit. The remedy would be to ~~elicit~~ issue a violation and deal with it that way.

There's nothing justifying the particular relief that the water users are seeking in this objection. Even assuming that what they say to be true, it just is not relevant to what is going on now.

Furthermore, that incident was before the Division at the last time that the Division approved the permit renewal. The Division was aware of the incident, but as now we are still not clear on the cause. The Division was also aware of that incident at the time of the tank seam renewal. The Board was also aware of that incident at the time of the tank seam renewal. Nothing since then has come forward to justify changing either the Division's or the Board's mind on that point.

Some of the things that the Board did find in that tank seam hearing was that Co-op's evidence on

Page 179

the specific geologic characteristics of the permit area was more credible than the water user's testimony and evidence on that point. The evidence is the same. It has not been changed since that point.

The Board has already found that evidence to be more credible, with that finding, that the same evidence this time cannot be found to have met the water users' burden of proof on that point.

The Board also found that tritium testing showed the water in the mine predated the nuclear age well water from Big Bear Spring, confirming the mine is hydrologically isolated from Big Bear Spring. That is a specific finding of fact that the Board made at the tank seam hearing.

We have heard additional information regarding the tritium dating during this proceeding. The information is new only in that it comes from analyzing new water sources. The results and the findings based on that tritium information is not new. The basic tritium contents discovered from analyzing these new water samples is basically the same information that the Division and the Board ruled on during the tank seam hearing.

There is no evidence on tritium testing that should persuade the Division to vary its decision from

Page 180

the decision the Board has already made, that the tritium testing in fact does establish that Big Bear Spring is in fact hydrologically isolated. The Board also found that chemical analysis showed that there were dissimilarities between the mine water and Birch Spring water.

We have new chemical analyses. They are new only in that the analyses are taken from new water samples. The substantive information conveyed is not new. The information regarding TDS in various elemental concentrations in the water compared to the information that was already before the Division and before the Board are not substantively different. They're certainly not different enough to justify varying from the finding that the Board has already made, that the chemical analyses do show dissimilarities between the mine water and the Birch Spring water.

Now the Board did not find that element's alone conclusive. But the Board did find that Blind Canyon fault, which is 800 feet east of Birch Spring, is a fault that does one of two things: Either it is completely plugged, in which case it would block any water from going westward and prevent the water from going to Birch Spring, or that same fault is not plugged and it's open, in which case the water would be channeled out the fault, and it would emanate at the place where

Page 181

the fault contacts the surface.

And there is no spring at that place. The conclusion that the Board made from that is that the existence of that fault, the conditions that we observed from looking at that fault, establish that the fault hydrologically isolates Birch Spring from Blind Canyon.

We've heard absolutely nothing today that would rebut that finding that the Board has already made. Nothing that the water users have done has met their burden of proof to counter the finding that the board has already made on that point.

The Board specifically found that any decline in water flow at this spring was from decreased precipitation, not from Co-op's mining activities, and the Board at the time had before it all of the spring flow information, all of the water discharge information and all of the precipitation information up to that date.

It was mid-1984 anyway, and so all of the information up to that time was already before the Division, already before the Board. The only new information we have is information dealing with spring flows and so on since that time. As I already mentioned, Mr. Leamaster established that since that time the water coming out of Big Bear Spring has gone up, not down, even

Page 182

though we are continuing to discharge water from the mine.

I would point you to Exhibit 4, Plate 1, which is Birch Spring flow. Now Mr. Nielsen stated his opinion as to what he saw going on here, and one of the things that Mr. Nielsen testified to is fairly illuminating. He tried to explain the first peak we see in the water flow out of Birch Spring which shows up in this -- in this plate somewhere between March and August of 1988. He stated that there was earthquake activity in the area at that time, and that the peak and subsequent drop in the water at that time was a result of that earthquake activity.

If you will look at the plate right at the beginning of that activity, and draw a line showing the base flow of the water coming out of Birch Spring from mid 1988, you'll notice that that event is the event that caused a sharp, immediate precipitous and permanent decrease in spring flow.

This is the evidence that the water users have submitted in this hearing that established that the decline in spring flow from Birch Spring was immediate, precipitous and permanent, and it dated not from the date of this '89, '90 incident. It dated not from the inception of mining activity or some period. It was a

Page 183

direct result of an earthquake incident that the water users say occurred at that time.

Something happened underground as a result of the earthquake to cut off this flow to this spring or reduce it. And that I would submit is the water user's own evidence as to the cause of the decline in the flow at Birch Spring.

Mr. Nielsen admitted that it's possible that the water we are hitting in the mining activity is a perched aquifer. He doesn't deny that. He admitted that as possible. That's not his opinion, but he does not deny that could be the case.

I would point out that testimony was given concerning the formation of certain icicles on the cliff walls, certain water seeping from the cliff wall areas in the mining area. That information was also before the Division and before the Board during the tank seam hearing.

It established that that water does flow out and in fact it supports Co-op's theory of the case that the Board relied on that information in part when it made its decision. It's consistent with the water, the hydrological conductivity that Mr. Nielsen testified to as to the rate of water through those shale, through the sandstone croppings, that the water seeps out at a

Page 184

certain rate on the order of 10 to minus 2 to 10 to minus 3 per day.

That's consistent with the showing that water seeps out gradually and it evaporates when it hits the air, which has already been placed in the record as to what actually occurs.

I would remind you of the site visit we had last time where water was actually pointed out to you in the mine area where that is in fact still occurring. That's what happens to the water that is encountered. If it goes anywhere, it eventually reaches the surface and evaporates long before it reaches the springs.

Mr. Nielsen testified that you do from time to time encounter perched aquifers in the general area; that when those perched aquifers are encountered, that they are above the regional aquifers. For a perched aquifer to exist it requires areas of nonsaturated sandstone in between. That was his testimony.

That's what we actually encountered. It's been established that we have two sandstone layers between the aquifer that we are encountering in the mine, mine seam and the aquifer that's feeding the spring. All three of those aquifers are in nonsaturated areas.

Mr. Nielsen testified his opinion was the entire formation is saturated above this potentiometric

Page 185

surface he referred to exists. That was his opinion. It does not comport with the facts that are already before the Division and the Board.

That opinion is contrary to the actual facts, and the fact that he has an opinion that contradicts the facts states more to his qualification to testify as an expert rather than the truthfulness and the reliability of his opinion.

Mr. Nielsen testified that in his opinion the monitoring wells that Co-op Mine has in place are inadequate. He didn't really go into very much detail why he thought they were inadequate. That is not a matter for an expert opinion to make an opinion on. It doesn't matter what he thinks; that the Division has already found those monitoring wells are adequate. The Board has already found during the tank seam hearing that those monitoring wells are adequate. We've heard nothing to this date to justify varying from that finding of fact.

Mr. Nielsen has also testified quite a bit about other springs being used as a control to compare what's going on in there to what's going on in their springs. I would point out that the Board specifically found during the tank seam hearing that the Little Bear Spring in particular is not useful as a control.

Page 186

I would submit that based on that decision that the Division should go along with what the Board has already ruled, that the Little Bear Spring is not useful as a control, and based on that same ruling find that even more remote springs are even less useful as controls.

Mr. Nielsen testified that the chemical analysis that he's seen indicate that the water in the area generally emanates from the -- comes from the same recharge area. We've never disputed that fact. The question is what happens to the water after it reaches that discharge area.

The evidence is unrebutted that it goes downgradient, part of it goes clear to the bottom aquifer where it goes to the springs. Another part reaches one of the shale layers that exist in the area and goes into that aquifer. Another portion goes into the upper aquifer.

And once the water reaches all of those individual aquifers, that's where it stays. It doesn't go to the next aquifer. The actual factual evidence on that point is unrebutted.

Again I think that was partly also from the deuterium oxygen comparison that was made. The testimony was that those analyses show that the recharge came at

Page 187

similar temperatures, similar locations. Again we haven't disputed that fact. The question is what happens to the water after it gets into the ground. And we've already established what happens, and the water users have not met their burden of proof that it is anything other than what has already been established.

Mr. Nielsen testified that generally, although he didn't have any site specific data, that the Menko shale permeability generally tests on the order of 10 to the minus 7 to 10 to the minus 8 feet. I did a fairly quick calculation based on Mr. Nielsen's testimony on that point.

As I said we have two Menko shale tongues between the water that the mine encounters during mining activities and the aquifer feeding the springs. Each of those shale layers is 50 feet or more in thickness. Using that permeability rate, it would take between one and 10 million years for water to go through each of those shale layers.

So we are looking at a minimum of two million years for water to percolate down from the water that is encountered in the mine to the aquifer that is feeding the springs, making it difficult to think that the water is going to make it from the mine level to the spring level in our lifetimes. And again this is based

Page 188

on Mr. Nielsen's own testimony.

The flow diagrams in Exhibit 4, I think particularly Plate 7, again I would submit Mr. Nielsen argued, makes some arguments about what he thought that those lines indicated.

I would submit that an examination of those lines, particularly tracing the baseline data, shows that even Little Bear Spring, which is not useful as a control, as well as Big Bear and Birch, began having a slow but steady decline, and a similar decline back in 1986 at least, and possibly before that, possibly even before mining activity began in the area; that those lines do track the decrease in precipitation flow; that they establish that the reduction in the water results from the reduction in precipitation in the area, not from mining activity.

And I would ask that the Division try to do some smoothing on those lines to establish that in fact the lines even in Little Bear establishes a slow but steady decline in the area resulting from decreased precipitation, and certainly in Little Bear not from mine activity. And by the same argument, not from mining activity in the other two springs too.

Mr. Nielsen stated his opinion that the mine's PHC has no baseline monitoring program. That was

Page 189

an issue that was already raised by the Board during the tank seam hearing. It was already argued before the tank seam -- in the tank seam hearing. The evidence was put on in that hearing.

Co-op Mine put on counter evidence to explain exactly where that baseline monitoring information was. The Board found that the baseline monitoring requirement was satisfied. There's been no evidence presented to the Division to this date to justify going against the Board's decision on that point.

Is there anything else?

MR. MAYO: I think you covered it.

MR. M. HANSEN: In summary, it has been the water user's burden of proof to come forward with some evidence to persuade the Division that it should change its mind. None of the evidence that has been presented by the water users throughout this entire proceeding is sufficient to overcome the information and evidence that was already before the Division when it made its decision that the water users have not met its burden of proof.

Mine should not have to meet, to come forth and establish new evidence, to reestablish the points that have already been made. We should have a ruling in effect now.

I would ask the Division to make some

Page 190

specific findings and conclusions in its ruling. First, that the water users have not met their burden of proof in this case, in their prima facia case.

Second, based on the record, based on the evidence that has been produced already to date in this informal conference, based on the information that is already in the record in the permit application itself and the evidence submitted to the Board during the tank seam hearing, and elsewhere in the record, that as a matter of fact the Big Bear Spring is hydrologically isolated from Co-op Mine's permit area.

We would ask for a specific finding that Birch Spring is hydrologically isolated from the permit area, and from those two findings I would ask for a specific ruling that the mining activity does not adversely affect the springs and that the permit has in fact been designed to prevent material damage to the hydrological balance outside the permit area, and finally for a decision to uphold the Division's decision to date to approve the renewal of Co-op Mine's permit. Thank you.

MR. CARTER: Thank you. Let me make a couple of observations that may guide. You'll have an opportunity to respond here obviously. First, and this is something that I had been thinking about a little bit

Page 191

over the last two days, interestingly enough, and that is what effect, if any, do boards, the Board's factual findings in a case which is not this case but in a mine which is this mine, and it's the same springs and the same basic issues, to what extent is the Division controlled by those findings of fact?

And without disrespect to the Board and without precipitating further argument about the law of the case, the facts and so forth, I think that I have been operating under the assumption that the Division is free to examine certainly new facts or new factual information that it did not have available to it at the time it made certain factual findings to support a decision one way or the other.

But I think the Division is also free to look at the same facts and apply new analysis, that is if the Division looks at the facts and says, well, that's an argument we didn't think of, or that's an interpretation we didn't think of, we're going to roll that into our thinking, and that may change a legal finding that we come to based upon facts that we've already concluded.

I think the Division is also free to do that. But as I said, in order to avoid precipitating an argument about that, I would also point out that whatever the Division does is really not prejudicial, because the

Page 192

Board is free to substitute its judgment completely; that is, the Board reviews these things de novo. And that is reviews the Division's decision de novo.

So if the Division acts without sufficient information, or if the Division makes a decision and the Board said no, we already decided that, we're trying to undo our decision, the Board's free to do that. There's no prejudicial effect.

I'm not trying to precipitate an argument about what the law of the case or the facts of the case are based on what the Board's done in the past, but just to telegraph to you that I agree that what the Division's job here is to look at all of the facts that we have in front of us, all the determinations we've made in the past, all the interpretations we've applied to those, together with all the information that's been submitted and the new argument that that's been submitted about, what that new argument meant and what conclusions we should draw from to possibly draw a new set of conclusions.

But I think that there is a burden on the part of the objectors. There is a presumption that the Division has acted correctly to date. So it's a de novo decision for the Division. The Division is going to take its analysis and decisions in the past and reexamine

Page 237

samples from inside the mine and gave it to Mel Coonrod as though it was the sample coming out of the mine portal.

THE WITNESS: I gave it to the superintendent. The superintendent gives it to Mel Coonrod, as far as I know.

MR. MORRIS: Do you know if Mel Coonrod was aware that that wasn't --

THE WITNESS: I have no idea. All I know is he was our tester.

Q BY MR. SMITH: Was that commonly done?

A That's the first time I'd ever been involved in the testing there. I took samples a few times. I come in, they gave me a pitcher. The superintendent says go over here and get a water sample.

So you go over and get your water sample. And it come out. Mel had to make a report. I don't remember how often it was because he had to make his report out, and all he got was the samples that were given to him. So that's what he went by.

I do know when I was working with DOGM, we come to the well that was down here that they were supposedly testing; it wasn't serviceable.

Q So you couldn't take a sample out of the well?

Page 238

A It was clear full of water. It had to be dipped out. I think on that well test down there that had to be dipped out. All the water had to be dipped out, the depth had to be taken. It was just a regular piezometer test down there and then a sample taken on that. And then they come up there, the lid was broke off. In fact I think we got a big violation over that. No, I know we did.

Q But it was more than one time that the sample was taken from --

A I was involved as far as being told take a sample in this one certain area three times that I can think of.

Q And these were supposed to all be discharge samples?

A As far as I know that's what they were for.

MR. APPEL: Do you know where Big Bear Springs is on that map? Can you point it out?

THE WITNESS: Well, I'm guessing, Big Bear. There's one right behind the ballpark. Do you know where the ballpark is?

MR. SMITH: Yeah, that's there.

THE WITNESS: Now where it's on on here, let's see. It would be probably right in here, either this one or this one. Right in here somewhere is where

Page 239

it would be.

MR. APPEL: Okay.

THE WITNESS: Right by the ballpark is where it's at.

MR. APPEL: Okay.

MR. CARTER: Any questions from Co-op? I keep saying Co-op. CW Mining?

MR. M. HANSEN: Doesn't look like it.

MR. CARTER: Okay.

MR. SMITH: Thank you, Galen.

THE WITNESS: Can I go now?

MR. SMITH: You can go.

MR. CARTER: I think we were going to let Mr. Hansen respond to -- or excuse me, what we were characterizing as argument there before we broke for lunch.

MR. APPEL: His reply.

MR. CARTER: No, after lunch. His reply. I'm sorry.

MR. M. HANSEN: So we're shifting gears.

MR. CARTER: Well, I think the first question is does this, the factual testimony that we just had create a need for you to address additional information?

MR. M. HANSEN: I think I need to respond

Page 240

more to some of the arguments that were made than the facts.

MR. CARTER: Okay.

MR. M. HANSEN: As far as Mr. Atwood's testimony, I would point out that his testimony doesn't go to the issue that is before the court. And I would like to start by pointing that out again. The water users have sought to somehow put the burden on Co-op Mine to say that in this proceeding that we have an obligation to prove that the permit area is hydrologically isolated. I heard somebody say that. That's not what this proceeding is about. And in fact we are trying to show that. But we've never had that burden to meet.

In this proceeding, the burden is on the water users to show that our -- in our permit, the proposed operation has not been designed to prevent material damage to the hydrological balance outside the permit area. The mine is entitled to the production that the operation is designed to do, and it's the water user's burden to come forward and rebut that prosecution, to show by a preponderance of the evidence that our permit, the operation has not been designed to prevent material damage to the hydrological balance outside the permit area.

Now what this proceeding is all about,

Page 241

Mr. Atwood's testimony, and if we don't win on this motion, we'll go forward and put on all kinds of rebuttal testimony, because it was an eye-opener, and it's quite incredible.

But at this point, if you buy everything that he says, which isn't true, but let's buy everything that he says, he is saying that there was an isolated incident years ago where somebody violated a part of the permit, and since it's been addressed, it's dealt with, it's no longer done. That's what his testimony boils down to, even if you accept it. I don't think you should. But even if you do, that's all that his testimony boils down to.

That's irrelevant of the issue that's before the Division at this point, which is designed to prevent material damage. And I still go back to the point that it isn't, or that it is designed, and that the water users have failed to rebut. We have this referenced up to a DOGM letter that was introduced through Mr. Leamaster.

Again that DOGM letter was already in the record. And DOGM was already aware of all of the facts in that letter. And those facts, again, they deal with the same issues that Mr. Atwood addressed, and for the same reason it's not relevant to the issue whether the

Page 242

permit should be renewed at this time.

There's been some kind of argument that this pumping in the old works led to a discharge which affected Big Bear; that the water users' own evidence shows that there was nothing substantively negative that has ever happened to the water quality at Big Bear Spring. That was their evidence in the tank seam hearing. That was their evidence before the Division during this hearing, that there's never been shown to be a negative impact to the quality of the water coming out of Big Bear Spring.

Their argument has been made that at one point there was an increase in the quantity. Now that doesn't show an injury. If anything I think that would show a benefit. And again, even if we're -- even if we accepted all that information as true, what they are talking about is what happens if water is discharged to the surface. They're talking about a surface connection.

And even if there was an increase, that does not establish a deep water connection such as the connections we're talking about would have to exist with Birch Spring, for example. And again the increased water flow even if we attributed it to this incident that Mr. Atwood testified to deal not with underground effects

Page 243

but with surface effects and with violations of mining permits, not with whether the permit itself is adequate.

And that is what all that evidence points to, and it does not militate against renewing the permit. If anything it would have militated in favor of issuing an NOV five years ago. And we would submit that it's long past time to do anything about that, that it, again, even if anything like that had happened, it's water under the bridge, so to speak, and it hasn't been shown to ever happen since then.

The permit is designed to prevent that from happening, and that is what has to be shown.

Mr. Smith argued that the Division needs to take a hard look at that situation. I don't have any problem with that. But again I think if you take a hard look at the situation, that the evidence to the extent it is not inclusive is irrelevant to the issue before the Division at this time.

Mr. Appel argued, he argued before the Board, he's argued before the Division before, that the big question is if something happens, where is the replacement water? As if there's something in the rules that require that. And we have argued before the Division before and before the Board before it had been upheld in that ruling and been affirmed in that ruling,

Page 244

that the rules do not require doing what Mr. Appel would like to have done in that regard.

The permit doesn't have to identify a replacement water source. There's nothing in the rules that require it. What it does require is the showing that the operation has been designed to prevent a material damage to the hydrological balance outside the permit area, and it does. The water users, the water users are just simply in error as a matter of law on the legal point of whether that's a requirement. It is not.

And the issue has already been resolved by the Division before. It has already been resolved by the Board before. There's been some discussion about Plate 7 in Exhibit 4, which I referred you to before, and I would submit that the Division doesn't need to rely on the arguments of counsel or on the arguments of expert witnesses as to what the contents are in that plate. You can look at the contents yourself and make your own findings and come to your own conclusions as to what that data shows.

And I again submit that the data shows that based on Mr. Nielsen's testimony, there was an earthquake incident in the area in mid-1988 and as a direct result of that earthquake incident the water flows dropped off in apparently several springs in the area. And that is

Page 245

the cause of the water dropoff.

Mr. Appel argued that the tank seam hearing and the findings out of that hearing aren't binding here. We haven't argued that they are. I think we've already explained and covered what the impact of those findings should be: As Mr. Appel said, that the water users have taken new samples, they've provided new information.

But as I already pointed out, the information, both the chemical analyses and the tritium analyses do not differ significantly if at all from the same information that we've already had before the Division and before the Board, and they confirm the findings rather than contradict the findings that were already made.

The argument has been made that we are taking what is claimed to be a unique position, that our permit is the only area in the whole region that is not heavily fractured. The only information we have regionally about the degree of the fractures is really taken from surface examinations, not from detailed underground reviews.

And conclusions that have been reached from examining the surface fractures, assumptions that have been made about how far they extend underground, our

Page 246

actual experience has shown that whatever the surface fractures show you, those fractures do not permeate the area, that we do not have fractures throughout the permit area.

And I think that's about it.

MR. CARTER: Okay. Let me -- I have a couple of questions that I want to pose. I'm hoping there's chalk over there because I'm going to draw diagrams. Oh, good. Maybe I'll just start out by asking Mr. Nielsen, this may be too simpleminded, but I want to make sure I understand what people are saying.

PETER NIELSEN,

recalled as a witness, for and on behalf of the Plaintiffs, being previously sworn, was reexamined and testified as follows:

FURTHER EXAMINATION

BY MR. CARTER:

Q So this is Huntington Creek, and we have relatively I guess slightly dipping beds, because you you're saying --

A Four degrees.

Q Fine. Very slightly dipping beds.

A Almost horizontal.

Page 247

Q So we've got something like this, and then we have this regional aquifer. I won't call it regional aquifer. We have the lowest aquifer, which dips something like that.

A Yeah. And that's the Spring Canyon sandstone information.

Q Okay. The Spring Canyon sandstone is right at the top of the --

MR. C. HANSEN: Now the way you've drawn your line, is that the north end?

Q BY MR. CARTER: Yeah, something like that. And in general terms, the Blind Canyon seam, everyone was agreeing that the north end was getting, they were at the same elevation at some point; right?

So my question would be if you were -- and I don't mean to ask this in a pejorative sort of way, but even if you put on a real high volume pump and you drill holes and you tracked all this and you started sucking water out of this as fast as you could rather than just letting it drip in or come up from the surface, wouldn't you really have to pump like crazy to get a cone of depression big enough to affect this spring? I mean if this is -- do you see what I'm saying?

A I see what you're saying. The information I have right now is based on wells and water levels in a

Page 248

preexisting mine. You don't know what premine baseline flows is in the Spring Canyon sandstone. It may have been several feet higher than it was now which was supplying that spring until it was mined into and dewatered.

Q So what you're saying is over a long period of time this could just generally depress the whole surface rather than creating a cone?

A Exactly. Lines in his study that he did on East Mountain showed that this stuff happens anywhere 45 to 50 years before you establish a steady state. Typically in those you'll have high flows in the beginning, and that tapers off to some steady state flow, whatever that will be. And you'll generally depress the water table or the water service around the -- beyond and beyond the actual mining part.

That's consistent with what Lines found. That's consistent with what McHorter found in studies over in Colorado, as stated by several studies in Illinois and West Virginia, that you do dewater beyond the boundaries of the mine to some steady state point.

Q That would be the areas that would be below the piezometric surface, wouldn't this?

A Yes.

Q If all of this -- if the coal were here and

JEFFREY W. APPEL (3630)
BENJAMIN T. WILSON (5823)
W. HERBERT McHARG (7573)
APPEL & WARLAUMONT, L.C.
1100 Boston Building
9 Exchange Place
Salt Lake City, Utah 84111
Telephone: (801) 532-1252

Attorneys for Castle Valley
Special Service District

J. CRAIG SMITH (4143)
DAVID B. HARTVIGSEN (5390)
NIELSEN & SENIOR, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Telephone: (801) 532-1900

Attorneys for North Emery Water Users Association
and Huntington-Cleveland Irrigation Company

IN AND BEFORE THE UTAH STATE DIVISION OF OIL, GAS, AND MINING

In the Matter of the Application of Co-Op Mining Company to Expand Mining in the Tank Seam at the Bear Canyon Mine, Permit No. ACT/015/025, U-024316	Water User's Objections to Co-Op's Application to Expand Mining Into Tank Seam and Request for Informal Conference

Objectors, Huntington-Cleveland Irrigation Company, North Emery Water Users Association and Castle Valley Special Service District (collectively "Water Users"), by and through their counsel of record, hereby submit this Objection to Co-Op's Application to Expand Mining in the Tank Seam at the Bear Canyon Mine, Permit Number ACT/015/025, U-024316, issued November 1, 1985.

The grounds for the Objection are as follows:

1. Water Users are a Special Service District, a non-profit water users association and a mutual irrigation company. Each either holds water rights in or has the right to use water from Birch Spring, Big Bear Spring, or both ("springs"). These springs are the primary culinary water sources for approximately 2,650 residents of northern Emery County, Utah, and are located adjacent to and down-gradient from the operations of C.W. Mining Company d/b/a Co-Op Mining Company's ("Co-Op") Bear Canyon #2 Coal Mine.

2. Co-Op intends to expand its mining operations to the north in the Tank Seam at the Bear Canyon #2 Mine. The expansion area is approximately 400 acres, and is anticipated to increase production from an approved amount of 200,000 to 750,000 tons. Application to Expand at 3-28. This represents a significant revision, subject to the mandates of R645-303-224.100.

3. Water Users are concerned that Co-Op's proposed expansion will have an adverse impact upon by diminishing water quantity or quality of the springs and the aquifers feeding the springs.

4. Water Users believe that Co-Op's proposed expansion may harm their vested water rights that represent critical and irreplaceable sources of water for several adjacent towns and communities.

5. As recognized by Co-Op, increased water flows have been encountered as mining operations proceed northward. In this application, Co-op changed its prior position with respect to the

hydrologic data submitted as part of its prior permit application and upon which its permit was granted. Co-Op initially explained the source of this water as a "perched aquifer." Since that time, a new theory of hydrology was enunciated by Co-op's new consultant--Alan Mayo, and is relied on in this current application. Co-Op's application explains that the "apparent source of this water" is a "significant channel sandstone, which traverses East-West along the North end of the mine." App. at 7-17; 2-7. This theory is totally new and at variance with the hydrologic information previously submitted by Co-op as part of its permit application and relied upon by the Division in issuing the current permit.

Although Co-Op contends in this application that "[m]ining in the Tank Seam has not encountered a similar channel or water inflows" App. at 2-7, Co-Op admits that "[t]he exact dimensions and configuration of this channel is unknown." App. at 7-17.

6. The Probable Hydrologic Consequences ("PHC") does not adequately address this potential "channel sandstone" source, nor the impacts of dewatering this source on the springs. A permit to mine coal may only be issued upon submission of specific information in the form of a Permit Application. See R645-300-112.400. Co-Op's PHC does not provide specific hydrologic information as set forth in R645-301-700, et seq., and contains numerous false and inaccurate statements.

7. The CHIA prepared by the Division is based on the PHC. Therefore, because Co-Op now admits the PHC does not adequately

describe the hydrologic condition of the permit area and does not address the hydrologic consequences of expanding mining north in the Tank Seam, the CHIA is inaccurate. Many of Objector's concerns relating to the adequacy of the PHC and CHIA are the subject of current informal administrative proceedings before the Division. See attached OBJECTOR'S JOINT POST INFORMAL CONFERENCE MEMORANDUM AND CLOSING ARGUMENT, Docket No. 95-025; Cause No. ACT/015/025, dated May 8, 1997.

8. As recognized by Co-Op, the "[c]urrent permit application will allow for mining of Lease U-024316 in the Tank Seam only [not Blind Canyon or Hiawatha] until additional hydrologic and geologic information can be obtained." App. at 3-27. Much of this hydrologic and geologic information relates to the encountering of water as mining proceeds north. Thus, expanding mining north in the Tank Seam should not be allowed either until additional hydrologic and geologic information has been obtained and addressed in the PHC and CHIA.

9. As noted above, some of this information is currently the subject of administrative proceedings regarding permit renewal for Co-Op's operations in the Blind Canyon Seam and the Tank Seam. Also, Genwal and the Forest Service are preparing an environmental assessment of Co-Op's proposed mining operations in this general area. Water Users believe that the conclusions reached and information generated by these proceedings and in the Genwal environmental assessment will greatly benefit the Division's

ability to determine whether to allow Co-Op to expand mining operations in the Tank Seam.

WHEREFORE, Water Users request that Co-Op's application to expand its coal mining activities in the Tank Seam at the Bear Canyon Mine, Permit No. ACT/015/025, be rejected and that Water Users be entitled to participate in an informal conference on the matter.

Water Users further request that they be kept apprised of all current or proposed Co-Op mining operations that may impact the quality and/or quantity of its water sources.

DATED this 31st day of July, 1997.

APPEL & WARLAUMONT

By _____
JEFFREY W. APPEL
BENJAMIN T. WILSON
W. HERBERT McHARG
Attorneys for Castle Valley Special Service District

NIELSEN & SENIOR

By _____
J. CRAIG SMITH
DAVID B. HARTVIGSEN
Attorneys for North Emery Water Users Association and Huntington-Cleveland Irrigation Company

COPY

Jeffrey W. Appel (3630)
Benjamin T. Wilson (5823)
W. Herbert McHarg (7573)
APPEL & WARLAUMONT
9 Exchange Place, #1100
Salt Lake City, Utah 84111
Telephone: (801) 532-1252

Attorneys for Castle Valley
Special Service District

J. Craig Smith (4143)
David B. Hartvigsen (5390)
NIELSEN & SENIOR
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Telephone: (801) 532-1900

Attorneys for North Emery Water Users Association
and Huntington-Cleveland Irrigation Company

BEFORE THE DIVISION OF OIL, GAS, AND MINING

DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY BEAR CANYON MINE EMERY COUNTY, UTAH	))))))	OBJECTORS' JOINT POST INFORMAL CONFERENCE MEMORANDUM AND CLOSING ARGUMENT Docket No. 95-025 Cause No. ACT/015/025

Petitioners Huntington-Cleveland Irrigation Company, North Emery Water Users Association and Castle Valley Special Service District (collectively "Water Users"), by and through their counsel of record, respectfully submit the following Objectors' Joint Post Informal Conference Memorandum and Closing Argument.

INTRODUCTION

Renewal of mining permits such as the permit at issue is governed by R645-303-230, et seq. Of specific importance to this proceeding are R645-303-233.110 which forbids renewal unless the terms and conditions of the existing permit are being satisfactorily met, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, and R645-303-233.200 which places the burden of proof on the opponents of the renewal.

As will be discussed in detail below, the informal conference held on October 17, 1996, November 8, 1996 and February 28, 1997 revealed that the requirements governing the hydrologic portions of the existing permit are not being satisfactorily met. The same is true for the environmental protection standards. Each of these grounds and the other grounds set forth herein require that the permit of Co-op not be renewed, and mining cease until such time as these requirements can be met.

POINT I

CO-OP HAS ADMITTED THAT THE HYDROLOGIC INFORMATION UPON WHICH THE PERMIT WAS ISSUED IS ERRONEOUS

A permit to mine coal may only be issued upon submission of specific information in the form of a Permit Application. See R645-300-112.400. The Applicant is required to provide specific hydrologic information as set forth in R645-301-700, et seq. This hydrologic information submitted by the Applicant, commonly known as the Probable Hydrologic Consequences or "PHC," forms the basis for the Division's assessment of the probable

cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance and must support the Division's required determination that the operation has been designed to prevent material damage to the hydrologic balance outside the permit area. R645-300-133.400.

During the informal conference, it became obvious that at best the hydrologic information previously submitted by Co-op as part of its permit application under R645-301-700, et seq. is flawed and inaccurate, thus requiring a resubmission of new and corrected hydrologic information prior to permit renewal. Further study and monitoring is required as well.

At the informal conference, Co-op changed its prior position with respect to the hydrologic data submitted as part of its permit application and upon which its permit was granted. A new theory of hydrology was enunciated by Co-op's new consultant--Alan Mayo. That theory, that the mining operation of the Bear Canyon Mine has encountered a sandstone water channel, is totally new and at variance with the hydrologic information previously submitted by Co-op as part of its permit application. The abandoned theory relied upon continuing interception of small perched aquifers, rather than interception of the potentiometric surface, which is Water User's position or an underground water conduit as postulated by Mayo at the recent hearings.

Mayo's testimony is premised on an entirely different theory of hydrogeology than the theory advanced in the PHC. The PHC describes the stratigraphic sequence as a "great thickness of <u>discontinuous</u> sandstone, coal, and mud/siltstone units." PHC at 2-6. In the PHC, Co-Op states:

> Groundwater enters the Blind Canyon Seam of the Bear Canyon Mine through fractures and roof bolt holes. Typically, water encountered by roof bolt holes flows moderately at first. Over a period of one or two months, flow decreases and eventually stops. Sources of these short-lived flows are inferred to be localized perched aquifers which store a limited amount of water.

PHC at 2-13.

The PHC also states that "[d]rainage of water from faults and fractures produces the largest volume of water flowing into the mine." PHC at 2-33.[1] At the recent hearing, Richard White testified that this statement is incorrect, stating that "the largest volume of water flowing into the mine is from the sandstone channel." HT III. at 260. This alone establishes that the hydrogeologic information upon which the permit was issued is erroneous.

According to Mayo, the sandstone "channel" above the mine is "a broad-based channel as well as being a long channel." HT III. at 41. Under his theory, it is this "channel" that is producing all of the water in the mine. Mayo stated that it appears to him "that the Blind Canyon Fault does not transmit water, in other words, acts as a barrier for groundwater which will be in overlying rocks and likely underlying rocks associated with the coal seams. It is likely that the large fault up Bear Canyon is -- also inhibits the flow of groundwater." HT III. at 49.

This "channel" would be classified as an aquifer with water moving through it. HT III. at 89-90. Mayo's testimony indicates that this water originally moved only horizontally, but mining activity has allowed the water to flow vertically. He stated that "I don't believe that those coal seams prior to this mining activity would allow it to be moving much -- to be

---

[1] The Revised Hydrogeologic Evaluation went on to state that "[m]ost of the water movement in the study area is through fractures, faults, and partings between the beds." RHE at 2-14.

moving vertically." HT III. 90. The PHC did not address this theory or this particular impact of mining because "the initial hydrogeologic evaluation in the PHC did not specifically address the channel because it hadn't been encountered at the time it had been written." Testimony of Chris Hansen, HT III. at 232.

Mayo also stated he did not know whether the conclusions of the PHC conformed to his conclusions because he had not "reviewed the PHC in terms of "Is this PHC adequate?" HT III. at 94-95. His lack of contact with the prior findings and theories of Co-op led to an entirely new theory of the hydrogeology of the mine and different mine discharge numbers than those contained in the PHC or the CHIA. HT III. at 123. Therefore, his testimony, on its face, attacks the adequacy of the PHC. Of course, Objectors presented an entirely different theory, fully supported in a variety of different ways and by independent methods. Certainly Co-op must be required to resolve these disparities and fully answer all of the hydrologic and hydrogeologic questions prior to the continuation of mining. Unanswered questions and open issues do not meet the legal requirements attendant to this proceeding.

Co-op, through the submission of the expert testimony of Mayo, has admitted that the existing permit was issued upon flawed and inaccurate hydrologic information in Co-op's PHC. The Division's hydrologic assessment, which is based on the now admittedly flawed and inaccurate information, is not valid. The hydrologic terms and conditions of the permit cannot possibly be met as those terms and conditions are incorrect, flawed and do not meet the requirements of R645-303-233.110. The permit may not be renewed at this time.

POINT II

CO-OP IS INTERCEPTING AND RE-DIVERTING WATER THAT WOULD OTHERWISE PROVIDE FLOW TO OBJECTORS' SPRINGS AND THUS IS NOT COMPLYING WITH ENVIRONMENTAL PROTECTION STANDARDS

A second ground for non-renewal of the permit is the non-compliance with the environmental protection standards in the state program. In the area of hydrology, the relevant standards are to prevent material damage to the hydrologic balance outside the permit area (R645-300-133.400) and to replace any water rights that are affected in quantity or quality, (Utah Code Ann. § 40-10-18(15)(c) (1997).) As set forth below and at the informal conference, the non-compliance of Co-op with the relevant environmental protection standards was established by the Water Users.

A. The interconnection between water within the Bear Canyon Mine and Big Bear and Birch Springs was admitted.

At the informal conference an important fact was established. For the first time and in direct contravention of its statements at the time of renewal in 1990-1991, and at the significant review hearings, Co-op admitted it pumped vast quantities of water intercepted at the working face of the mine into a worked-out portion of the mine and elsewhere, during the 1989-1992 time period. See HT III. at 25; 250; 292. It was during this same time period that anomolously high flows and water quality problems were experienced in Big Bear and Birch Springs. The testimony of Charles Reynolds, Gaven Atwood and others substantiated these illegal actions. HT II. at 217-238; HT III. at 25. The import of this admission is that the hydrologic interconnection between the mine and the springs undisputably exists. In other words the water inside the mine can and does reach and feed the springs of Water Users.

B. The groundwater system through the area of the Bear Canyon Mine is connected with the Recharge on Gentry Mountain and Big Bear and Birch Springs.

Testimony at the hearing demonstrates that the Gentry Mountain groundwater system is interconnected. In his testimony, Mr. Peter Nielsen agreed that the interconnection between Birch Spring and the mine was demonstrated by the spike flow out of the spring when the mine water was being discharged out of the portals. HT II. at 129. According to Mr. Nielsen, this "shows the fractured nature of the system where you discharge out the portal into Dry Creek and you get peak flows several weeks or less than a week later in Birch Springs downgradient several thousand feet." HT II. at 130. Mr. Nielsen:

> identified a trend associated with that fracture in aerial photographs and also identified that same fracture zone in subsidence associated with Trail Canyon Mine in Dry Creek. So it's an interaction of discharging water on the surface going into the subsidence and interacting with any water in Trail Canyon, some volume of water in there probably saturating the system, saturating the fault and having some sort of failure, or simply recharging the zone.

HT. II. 131. Nielsen was able to conclude that there "is no difference in the recharge location" for the water from Birch Spring, Big Bear Spring and the mine -- all are recharged from snow pack on Gentry Mountain. HT II. 77. Significantly all experts who testified agreed that Gentry Mountain provides the recharge for both water in the mine and the springs.

C. Activities in the Bear Canyon Mine which re-direct or contaminate water do not comply with Environmental Protection Standards.

With the hydrologic interconnection between the mine and the springs established, the Division must conclude that activities which re-direct or contaminate water do not comply with Environmental Protection Standards of the Division in violation of R645-303-233.120. They also damage the hydrologic balance outside the permit area in violation of R645-301-750. As

was established at the Informal Conference, when the Bear Canyon Mine was first permitted, and during its early years, it was virtually dry. HT III. at 8. However, as mining proceeded to the north, significant and continuous flows of water were encountered and continue to be encountered today. As discussed above, this encountered water is hydrologically connected with Big Bear and Birch Springs.

POINT III

THE PHC CONTAINS FALSE AND INACCURATE STATEMENTS AND LACKS AN ADEQUATE AMOUNT OF BASELINE DATA, AND THE CHIA FAILS TO ADDRESS THE CUMULATIVE HYDROLOGIC IMPACTS OF MINING

A. The PHC Contains False and Inaccurate Statements

In addition to the revision of existing hydrologic information and theory provided by Mayo, there are numerous false and inaccurate statements in the PHC which also demonstrate its inaccuracy and unreliability.

Co-op has stated that the "volume of groundwater flow into the mine has only recently increased sufficiently to produce water in excess of that needed for mine operations." PHC at 2-33. This statement is a factual misrepresentation as we know Co-Op encountered at least 110 gpm of water in the 1st North section of the mine in the summer of 1989. This fact is evidenced by pages 3-1 and 3-2 of the Hydrogeologic Evaluation of the Bear Spring Mine Permit and Proposed Expansion Areas by Earthfax Engineering, Inc. dated March 11, 1991, which states:

> The East Bleeder inflow remained constant until the summer of 1989, when water was encountered at the northern end of the North Main entries. According to Wendell Owen, the mine intercepted a flow of about 110 gpm. This flow occurred mainly from fractures and roof bolt holes in the roof and has essentially remained constant since it was first encountered.

There are other documents that evidence water prior to 1991. The C.W. Mining Co. mine map dated December 1, 1989 Bear Canyon Plate 7-1A shows that Co-Op hit "Seeps/Drippers - 110 GPM" in the 1st North area on August 3, 1989 when this area was mined out. Each of Co-Op's mine maps from this time forward have shown this flow is continuing. For example, the Co-Op Mining Company Mine Water Survey Map, dated January 1, 1992 Plate 7-10A shows the 1st North area producing 120 gpm, and the 2nd East Bleeders area producing 252 gpm. Further, the Co-Op Mining Company Annual Report 1990, page A-14, shows that Station SBC-9, which is the first North area, produced flows of 120 gpm to 97 gpm during 1990.[2] The 1991 Annual Report states that Station SBC-9 produced from 81 to 140 gpm in 1991. This evidence clearly establishes that Co-Op hit major amounts of water in 1989.

An important question is presented as to what Co-Op did with all this water once it was encountered. According to the Co-Op Mining Company Annual Report for 1990 page A-2, the Total Water Usage for 1990 in the mine was 994,600 gallons (3.052 acre feet). This yields an average usage of 2,725 gallon per day. However, in the same report, they provided data relative to inflow in the 1st North area of the mine at a mean flow of 114.25 gpm for the year. Annual Report 1990 at A-14. The flow of 114.25 gpm is equal to 164,520 gallons per day or 60,049,800 gallons per year (184.3 acre feet). Thus, the difference between the water used and the water produced in 1990 is 59,055,200 (181 acre feet) -- where did this water go? That question, as well as where the water would have gone but for its interception must be answered before mining may continue and the lost water must be replaced.

---

[2] This 1990 report was used because DOGM either does not have, or is unable to locate a 1989 annual report.

Co-Op began reporting a discharge from the mine on their discharge permit in April of 1991. During the 606 days from August 3, 1989 when they reported encountering water in the 1st North entry until April 1, 1991, 114.25 gpm or 164,520 gallons per day were produced, yet only 2,725 gallons per day were used on average. Where did the unaccounted 161,795 gallons per day or a total of 98,047,770 gallons (301 acre feet) produced during this time period disappear to? These questions are not answered by the mine permit as it fails to account for this water. Mine Dewatering § 7.1.4.3, page 7-32.

The answers to these questions were given in Mr. Gaven Atwood's testimony. In his testimony, Atwood disclosed that this water was pumped, without a permit, out of the west portals until October of 1989 which the flow of North Emery's Birch Spring. HT II. at 214-224. They also "breached" a seal that was installed in the old workings and pumped water into these workings. Id. at 221.[3] Pumping water into these old workings caused the icicle formation on the ledges above Big Bear Spring, and contaminated that spring.[4] See HT II. at 128, 169, 183, 221-228.

In addressing the surge in flow and contamination of the Big Bear Spring during the fall of 1989, Co-Op argued that "[t]he reason for this fluctuation is unknown." Revised Hydrogeologic Evaluation at 2-39. However, in an interoffice memo from Tom Munson, senior reclamation hydrologist, to Pamela Grubaugh-Litig, permit supervisor, dated May 17,

---

[3] This testimony raises issue with a statement made in the PHC that "SBC-3 was damaged in 1990 and surface water began leaking into the well. In March 1992, SBC-3 was repaired and sealed." PHC at 2-13.

[4] Co-Op admitted during this hearing this event took place. Yet in the prior Blind Canyon Seam and in the Tank Seam hearings, they denied this and went to great lengths to try and prove that the ice formation was a common occurrence.

1991, Mr. Munson states:

> It has been discovered that mine water was pumped into old workings in the south end of the mine via a pressure relief valve set up on the in-mine pumping system . . .. Based on the information the Division has received from Co-op in response to its November 27th, 1990 Division Order, and a verification that the pumping system and set-up conducted on May 16th, 1991 by Jesse Kelley, the Division has made the following observations:
>
> > Pumping water into the old workings via the old pumping and piping system most probably had an effect on the water balance in the old workings causing a discharge to occur at the outcrop, potentially affecting Big Bear Spring.
>
> ***
>
> Based on the discovery of the pumping of water into the old workings and the documented increase in the flow in Big Bear Spring, the termination of pumping water into the old workings will hopefully solve the current quantity and quality abnormalities at Big Bear Spring.

(Munson Memo, 5/17/91).

Charles Reynolds admitted that during this time, "[water] was discharged into the old workings . . . . It was put into the old workings, and at the time it appeared there may be a potential, in fact the Division requested that cease and that was discontinued." HT I. at 26. Further, even though the evidence shows that Co-Op had knowledge, the PHC states that "[t]o date, no negative impacts to seeps or springs has been demonstrated." PHC 2-36. This is in addition to the material misrepresentations concerning these facts made to Dianne Nielson in the previous proceeding to secure the last renewal.

During the recent hearing, Earthfax presented flow data from Danielson on Big Bear Spring and Birch Spring in 1978, showing that the flow was only 110 gpm. HT II. 207. They used this data to attempt to argue that low flows of this magnitude were common to this spring and that the low flows during the last few years were to be expected.

It should be noted that the water years of 1977 and 1978 had the lowest ever recorded annual precipitation in that area. The preceding years were probable declining precipitation years as well. The normal trend at Big Bear Spring and Birch Spring would be for discharge to decline as well, as evidenced by Danielson's measurements from Little Bear Spring which show nearly record low values during the same time period. This suggests that the springs were dewatering aquifer storage.

It is interesting to note, however, that between 1979 to 1985 annual precipitation increased to above average and the discharge at the Springs also increased and followed the peak discharge pattern in one year. This response was not observed at Big Bear Spring and Birch Spring following the declining precipitation trend between 1985 and 1990 and the Spring has not recovered in the later years. Because Big Bear and Birch Springs have not recovered their flows in the same pattern as in 1978 through 1985,[5] one suspects that <u>something</u> has changed the aquifer storage, especially since the control spring, Little Bear, has returned to normal. That something is the mining operations of Co-op.[6]

---

[5] This pre-mining baseline monitoring fact should have been in the original PHC, but is not.

[6] This is the same argument advanced by Richard White of Earthfax at the hearing when asked if he would agree with the statement made by Gregory Lines that "groundwater storage has been reduced around all water-producing mines in the area." HT III. 264. As to Bear Canyon Mine, Mr. White argued that:

> the storage is basically -- it's as though you have this bathtub. And so if you take something out of the bathtub, you've reduced the storage. So anytime water is discharged from the mine, something has been removed from storage.

HT III. 264.

B. The PHC Lacks Adequate Data To Establish The Baseline From Which Hydrological Consequences Are To Be Measured

The PHC is inherently deficient because it lacks sufficient baseline data, i.e., the quantity and quality of flow of surface and ground water, so that DOGM may assess the probable cumulative impacts and produce its CHIA. It is axiomatic that if the PHC is deficient, the CHIA would be deficient, and thus would result in an invalid permit.

Section 1257(b) (Submittal contents) of Title 30 of United States Code Annotated (§ 507(b) of SMCRA), provides:

> The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things -
>
> . . .
>
> (11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime,[7] quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, That this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, That the permit shall not be approved until such information is available and is incorporated into the application;

30 U.S.C.A. § 1257(b).

The history of SMCRA indicates that protection of the integrity of surface and ground-water resources from the potential adverse impacts of coal mining was one of SMCRA's major objectives. In passing SMCRA, Congress acknowledged several historical incidents in which

---

[7] Hydrologic regime means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

coal mining had deprived communities downstream from mining areas of the quantity and quality of water needed to sustain those communities. As Judge Flannery said in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990),

> [SMCRA] also reflects that harm to the environment can occur through accumulation of little things over a long time. At issue here is not just whether a dam will crack and burst after many years. The Act shows deep concern about changes to the quality of ground water and streams because of erosion or run-off that could take many years to come to full effect.

Id. at 20128. Therefore, in section 507(b)(11) of SMCRA, Congress required that the regulatory agency conduct "an assessment [of] the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability."

Under § 507(b)(11) of SMCRA, mining permit applicants are required to submit PHCs that focus and analyze the hydrologic effects of the mine and "adjacent areas." This has been interpreted by the Office of Surface Mining Reclamation and Enforcement, Department of the Interior, ("OSMRE"), and upheld by the courts[8] to require a "life-of-the-permit" analysis. On the other hand, a CHIA, which is the regulatory agency's duty, requires a more extensive "life-of-the-mine" analysis.

Under 30 C.F.R. § 784.14(e)(2) and R645-301-731.800 the PHC must provide "baseline hydrologic data," i.e., the quantity and quality of flow of surface and ground water. Furthermore, under § 507(b)(11) of SMCRA, the application must include sufficient data so

---

[8] National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990).

that DOGM may assess the probable cumulative impacts and produce its CHIA.[9] "This information [baseline data] must be gathered and evaluated by the applicant to a degree that will reasonably assure the protection of the onsite and offsite environment and water rights of others in areas where adverse impacts may occur." 47 Fed. Reg. 27,712, 27,715 (June 25, 1982). The Utah Administrative Code also requires the permit application to include a plan that is specific to the local hydrologic conditions, contain steps to minimize disturbance to the hydrologic balance inside the permit area, prevent material damage outside the permit area, and includes "measures to be taken to protect or replace water rights and restore approximate premining recharge capacity." R645-301-731.

Without providing an in-depth review of the entire PHC, it is clear the baseline data of the PHC is insufficient. For example, Table 2-5 on page 2-10 of the PHC indicates that SBC-4 (Big Bear Spring) and SBC-5 (Birch Spring) were "not measured" between 1984 and 1991.[10] EarthFax's Figure 2-2 also does not show the geologic strata below the Mancos No. 1 formation in well DH-4, nor does it show any water in the Storrs formation from that well. Also, the PHC is not entirely clear how many samples were used by EarthFax to arrive at the figures it uses in most of its tables. For example, Tables 2-6 and 2-9 indicate that 8 quantity

---

[9] The legislative history of SMCRA shows that the Senate added to § 507(b)(11) a requirement that the CHIA not be required until adequate hydrologic information was available on the general area and that the House responded with a proviso that the permit could not be approved until such information was available and incorporated into the permit. 53 Fed. Reg. 36,394, 36,396 (Sept. 19, 1988).

[10] Despite the Board's ruling in the Tank Seam proceeding that it was "convinced" that Co-Op's failure to measure flow rates at the inception of mining was "harmless," requisite baseline data needed to be more than reliance on Water User's records. Co-Op should have done studies to establish baseline data themselves.

and quality tests were made for Big Bear and Birch Springs in 1991. These tables indicate that a different number of samples were taken from the other monitoring sites and many of the tables do not indicate the number of samples taken in order to come up with the numbers.

The installation of the groundwater monitoring wells inside the mine, after they intercepted the large flows in 1989 does not constitute baseline data required under 30 C.F.R. § 784.14(e)(2), especially since that law was enacted before Co-Op started mining in the Bear Canyon Seam. The aquifers above and below that portion of the mine were likely dewatered before the groundwater monitoring wells were installed in the mine.

Further, the testimony of Gaven Atwood demonstrates some of the samples used may not represent actual water flow/quality conditions.[11] Atwood personally witnessed many instances where oil and grease got into the mine water, including a time when they blew a main and within two minutes it poured out 250 gallons of oil. HT II. 225. He also testified that mine workers would urinate and defecate inside the mine.[12] Despite these facts, the PHC neither included an analysis of the water quality impacts of fecal coliform, nor a plan to deal with spontaneous high volume discharges of hydrocarbons. PHC at 2-37. The end result was the contamination of Water User's springs by mine operations.

The point is that in order to gauge the probable and cumulative impacts of future mining in an area, an adequate baseline study must be and was required to be performed.

---

[11] Atwood testified that on the second day he worked at the mine, he was told to take a water sample for DOGM. Atwood collected the sample of "really good drinking water" from a drip in the roof, although the sample was supposed to come from the well that sits outside the discharge point. HT II. at 228.

[12] The fact that approximately sixty people per day work in the mine indicates much fecal coliform is produced.

Because insufficient data was collected and arrayed, Co-Op must be required to provide more information on the hydrology of the mine area:

> When existing wells are not sufficient in number or location to provide an accurate description of baseline conditions, §§ 780.21(b)(2) and 784.14(b)(2) would allow the regulatory authority to require drilling of new or additional monitoring wells and to require that necessary additional information be provided.

47 Fed. Reg. 27,712, 27,715 (June 25, 1982). Additional monitoring wells for more extensive monitoring would also provide the DOGM with an "early warning system," which may meet some of Water User's concerns. Also, groundwater monitoring is usually based on the baseline data. To the extent that baseline information is inadequate, ongoing monitoring should be more extensive to make up for the inadequate baseline information.

C. The CHIA Fails To Adequately Address The Cumulative Hydrologic Impact Of Mining On Water Availability To The Areas Within Which Impacts From The Mining May Occur

Because the PHC did not include the quantum of information about the hydrogeology of the area necessary for the DOGM to prepare the CHIA, a permit cannot be approved until adequate information is available and incorporated into the permit. See footnote 9. If this information is not available:

> then the regulatory authority must delay issuance of the permit until either the necessary information is available for an appropriate federal or state agency or is collected and incorporated into the permit application by the applicant.

53 Fed. Reg. 36,394, 36,398 (Sept. 19, 1988). Thus, if the information available regarding the hydrology of the mine area is insufficient for the CHIA, the applicant must provide that data. Because the Co-Op PHC did not contain this information, the CHIA analysis was inadequate and mining must cease.

1. The CHIA erroneously excludes an assessment of impacts of mining on the availability of water in the service areas of Water Users.

The CHIA is required to assess the impacts in the "cumulative impact area" ("CIA"). The CHIA gives an exhaustive, 2-page inventory of the indigenous plant species within the currently-defined Gentry Mountain CIA, yet ignores the human populations who rely on the water coming from that area. CHIA, I. Introduction.

Section 701.5 of 30 C.F.R. defines, "cumulative impact area" to mean the area "within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and ground-water systems." This, coupled with the § 507(b)(11) requirement that the CHIA assess "water availability" leads to the conclusion that the service areas of Water Users should be included in the CIA. However, the current "southern and eastern boundaries [of the Gentry Mountain CIA] are defined by T16S/T17S and R8E/R9E SLBM, respectively." CHIA, II. Cumulative Impact Area. This covers an area of approximately 112 square miles.[13] This CIA eliminates an assessment of the hydrologic impacts of mining and water availability on the downstream communities of Huntington and Cleveland. By excluding these areas, the CHIA fails to meet the purpose of § 507(b)(11) that the CHIA assess hydrologic impacts, "particularly upon water availability."

---

[13] The preamble to the rule proposing the definition of the CIA states, "the cumulative impact area would be defined to mean, with respect to assessment of the probable cumulative hydrologic impacts of mining, the surface and ground-water basin(s), . . . which may have a cumulative hydrologic impact with the proposed operation. . . . The precise areal extent of the cumulative impact area would be defined, on a permit-by-permit basis . . . ." 47 Fed. Reg. 27,712, 27,714 (June 25, 1982).

2. The CHIA inadequately addresses hydrologic impacts of mining on the availability of water to the service areas of Water Users.

Because the CIA excludes the service area of Water Users, the CHIA is rendered inadequate. Under 30 C.F.R. § 784.14(f), the CHIA is required to be sufficient to determine the probable cumulative impact to the hydrologic balance outside the permit area, i.e., the service areas. As a review of the CHIA indicates, no analysis of water availability has been done for these areas.

It may not be argued that water availability of downstream users is not affected by mining in the Gentry Mountain area. The five mines listed in the CHIA--Bear Canyon, Deer Creek Mine Waste Rock Storage Facility, Hiawatha Mines Complex, Star Point Mines, and Trail Canyon Mines--all "consume" groundwater that would eventually make its way, one way or another, to those downstream communities. The CHIA's assessments of impacts of mining on water availability is very sparse. In this regard, the Gentry Mountain CHIA merely concludes, "approximately 630 gpm are consumptively lost to mine ventilation (80 gpm) and evaporation at coal preparation facilities (545 gpm)" and "An upper limit of 20 years has been estimated for complete flooding of workings and re-establishment of the premining ground water system." CHIA, VI. Summary. The CIA and CHIA must be completed per the requirements of law before mining may continue.[14]

3. An inadequate CHIA raises the question of whether the permit has been legally issued or renewed.

The inadequacies of the CHIA make a comparison of PHCs on proposed mining

[14] As all of Huntington Creek is still appropriated water, this water must be replaced pursuant to § 40-10-18(15)(c).

operations with the CHIA inadequate as well. In defending the PHC and CHIA requirements to the district court, the Secretary of the Interior argued in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990), that:

> [A]t its option, the operator may submit additional data to assist the regulatory authority in drawing up the CHIA. Implicit in this suggestion is the view that the operator almost has to submit such data, because if the regulatory authority cannot put together a CHIA, it may not issue a permit. See SMCRA s 507(b)(11), 30 U.S.C.A. s 1257(b)(11) (CHIA not required until hydrologic information made available by federal or state agency, but permit shall not be approved until information available and incorporated into the application) (See NWF v. Hodel, 839 F.2d at 758, construing statute in this manner.)

Under this analysis, the original permit and the current permit renewal should not have been granted until there was sufficient information on water availability and hydrology to prepare and incorporate into the CHIA. As is discussed above, DOGM must review the PHC with a revision of the CHIA and the areal extent of the CIA in mind.

4. The CHIA's findings are inadequate.

Finally, the CHIA's findings are inadequate. Under 30 C.F.R. § 784.14(f), and R645-301-729.100 "[t]he CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation[s] [have] been designed to prevent material damage to the hydrologic balance outside the permit area." In this regard, the CHIA simply concludes: "[t]he designs proposed for all anticipated mining operations within the CIA are herein determined to be consistent with preventing damage to the hydrologic balance outside the proposed mine plain areas." CHIA, VI. Summary. This is merely an inadequate, misstatement of the applicable standard for a CHIA. Thus, DOGM must re-visit its Gentry Mountain CHIA and CIA for the purposes of bringing it into compliance with § 507(b)(11) of SMCRA. As part of that process, the CIA must be enlarged beyond its current border of T16S/T17S and

R8E/R9E SLBM to include the areas served by Water Users.

POINT IV.

The arguments below address the issues requested by the Division in its March 25, 1997 letter.

A. UNDER R645-301-750 CO-OP IS REQUIRED TO EITHER AMEND ITS PLAN OF OPERATIONS OR MAKE REPARATIONS FOR DAMAGES CAUSED IF IT CAN BE DEMONSTRATED THAT THE MINING HAS ANY HYDROLOGIC EFFECT

The performance standards of R645-301-750 provide:

> All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area . . .

R645-301-750 does not address the quantity of effect that must be demonstrated to require an operator to amend its plan or make reparations. The omission of language concerning amount or level of disturbance is evidence that the amount of hydrologic effect is not an issue. Further, there are many other provisions in the rules that imply the intent was to mandate this requirement where any hydrologic effect can be shown. Of course, in this case any water diverted in a manner that reduces Water Users vested water rights is a material impairment and damage. The fact is that hundreds of acre feet are missing.

For example, R645-301-731 states that the "plan will specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645-301-728 and will include preventative and remedial measures." Further, R645-300-148 states that the permittee will provide "[a]ny new information needed to correct or update the

information previously submitted to the Division by the permittee under R645-301-112.300."[15] R645-300-148.100. This implies that if any new hydrologic effect is demonstrated it must be addressed by the PHC, even if there is only a potential effect. Of course here we have actual effects.

The Water Users have demonstrated at this hearing and Co-Op admitted, that there was a surge in quantity and decrease in quality of the spring water during the time that Co-Op pumped water into the old workings. That means the mine workings are interconnected with the Springs and are intercepting Spring recharge water. It is undisputed that Water Users springs have not recovered their historic flows and the testimony and exhibits introduced support that conclusion. Thus, the injury is actual, material and continuing, and the Division must minimize this disturbance and prevent any further damage.

B. THE DIVISION MAY ORDER WATER REPLACEMENT AS A REMEDY THAT IS CURRENTLY AVAILABLE AND CO-OP IS REQUIRED TO REPLACE WATER IT CONTAMINATED, DIMINISHED, AND/OR INTERRUPTED

1. The Division May Order Water Replacement As A Remedy That Is Currently Available

Even though the Board has not yet promulgated underground water replacement rules under the recently enacted amendments to the Utah Coal Regulatory Program, as an administrative matter, an order of water replacement is a remedy currently available to the Division. The Surface Mining Control and Reclamation Act of 1977 gives primary responsibility for developing, authorizing, issuing, and enforcing regulations rested with the

[15] This provision applies to instances where cessation has been ordered and is presented here only to illustrate intent.

states. 30 U.S.C. § 1201(f). State laws and regulations must be consistent with, and at least as stringent as, federal law or else the state risks federal intervention, withdrawal of program approval, and loss of primacy. 30 U.S.C. §§ 1211, 1253, and 1255. Congress revised SMCRA (Public Law 95-87) in section 2504 of the Energy Policy Act of 1992 by adding section 720 (1309a). Pub.L. 102-486, 106 Stat. 2776 (1992). Section 1309a of SMCRA requires underground mining operations to:

> promptly replace any drinking, domestic, or residential water supply of a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

30 U.S.C. § 1309a(a)(2). The Office of Surface Mining Reclamation and Enforcement promulgated a final rule implementing section 1309a and adding "Probable-Hydrologic-Consequence" and water replacement requirements to 30 C.F.R. §§ 701.5, 784.14, and 817.41. 60 Fed. Reg. 16722 (March 31, 1995).

Since 1979, Utah has required that:

> The operator of a surface coal mine shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use form an underground or surface source where this supply has been affected by contamination, diminution, or interruption proximately resulting from the surface coal mine operation.

Utah Code Ann. § 40-10-29(2) (1979). The 1997 amendments expand this requirement to underground mining to coincide with and abide by federal law. Further, Rule R645-301-731.800 of the Utah Administrative Code mirrors the language of the Utah Code. Even Mr. Hansen, counsel for Co-Op, acknowledged before Chairman Lauriski that the requirement to replace water is:

> nothing new, it's written into the current regulations. R645-301-731 requires Co-Op's plan to include measures to be taken to protect or replace water rights and . . . [a]lso require Co-Op mine to replace any water that's contaminated or lost.

Transcript of Hearing on Tank Seam, 10/25/94 at 26.

Co-Op cannot now argue that replacement is not required. For replacement to be a viable option, however, a source must be identified and be available before interruption occurs. That is not the case now and is an issue that must be resolved before the permit may be renewed.

2. CO-OP Is Required To Replace The Water That It Contaminated, Diminished, And Interrupted

Co-Op is required to replace any water that has been contaminated, diminished or interrupted -- regardless of the quantity affected. Utah Code Annotated Section 40-10-18(15) provides:

> (c) Subject to the provisions of Section 40-10-29, the permittee shall promptly replace any state-appropriated water in existence prior to the application for a surface coal mining reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

Utah Code Ann. § 40-10-18(15) (1997).

The rule of *de minimus non curat lex* has no application to this determination. That rule is reserved for circumstances where the harm caused, the potential that the harm will occur, or the injury suffered by the occurrence would be so minor that the law need not be concerned. Utah courts recognize, and strongly protect the rights of water owners. This is illustrated by the Utah Supreme Court's disapproval of the statement made in a State Engineer's decision that there could be a "de minimus" decrease of the water reaching the lower users "with which the

courts will not be concerned." Piute Reservoir & Irrigation Co. v. West Panguitch Irr. & Reservoir Co., 367 P.2d 855 (Utah 1962) (holding that a change should not be allowed to operate without affirmative proof that the rights of the lower water users were not thereby impaired). Furthermore, Utah has adopted a strict liability standard for interference with water. Morgan v. Quailbrook Condominium Company, 704 P.2d 573 (Utah 1985) (instruction on interference with water properly phrased in terms of strict liability citing water scarcity rationale of Branch v. Western Petroleum, Inc., 657 P.2d 267 (Utah 1982)).

In this case, the Water Users are the owners and purveyors of the water rights in Birch Spring and Big Bear Spring. These springs are major drinking water sources for Northern Emery County. Evidence adduced at the hearings revealed that Co-Op's mining operations have affected these springs through loss of hundreds of acre feet. The actions of Co-Op have destroyed the historic return flow patterns and consume groundwater which would have eventually made its way to Water User's springs. Without replacement water, the Water Users' ability to provide a safe and consistent water supply to their constituents is severely threatened. Thus, rule of de minimus non curat lex does not apply, and Co-Op should be strictly liable for any contamination, diminution or interruption of the Water Users' springs under the mandates of R645-301-727. They should be ordered to replace the water they have intercepted.

Where the "de minimus" rule does not apply, the amount of impact is irrelevant. However, even if the Division finds that the rule could apply to cases involving such an important resource, it would not apply in this case. The impact on the Springs occurring simultaneously with Co-Op's discharge of excess mine water into the old workings (the

"event") was extensive and continuing, and its significance is great. The current flows from the springs are a reduction of hundreds of acre feet from the historical flows. Furthermore, Water Users submit that another significance of the "event" was that it established that there is in fact a relationship between the activities occurring in the mine and the quantity and quality of water at their springs. Certainly the continuing potential for an impact of unknown magnitude cannot be considered de minimus.

CONCLUSION

The informal conference has uncovered the flawed and inaccurate nature of the PHC, CHIA and CIA, which is the hydrologic information upon which the Permit is based. It has also demonstrated the material misrepresentations upon which the previous permit renewal was based. Co-op must not be allowed to profit from such behavior. Finally, the need for immediate replacement of water and the need for identification of future replacement sources has been amply demonstrated.

Dated this 8th day of May, 1997.

APPEL & WARLAUMONT

Jeffrey W. Appel
Benjamin T. Wilson
W. Herbert McHarg
Attorneys for Castle Valley
Special Services District

NIELSEN & SENIOR, P.C.

J. Craig Smith
David B. Hartvigsen
Attorneys for North Emery Water Users Association and Huntington-Cleveland Irrigation Company

CERTIFICATE OF SERVICE

I hereby certify that on this 8 day of May, 1997, I have caused to be sent, through the United States mail, first-class, postage prepaid, a true and correct copy of the foregoing OBJECTORS' JOINT POST-INFORMAL MEMORANDUM addressed as follows:

F. Mark Hansen, Esq.
624 North 300 West, Suite 200
Salt Lake City, UT 84103

F. Mark Hansen, #5078
624 North 300 West, Suite 200
Salt Lake City, Utah 84103
Telephone: (801) 533-2700

Carl E. Kingston, #1826
3212 South State Street
Salt Lake City, Utah 84115
(801)486-1458

Attorneys for Co-op Mining Company

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**CLOSING ARGUMENT** Docket No. 95-025 Cause No. ACT/015/025

INTRODUCTION

Co-op incorporates by reference its Permit, with all attachments, exhibits, addenda and revisions, including all material relating to hydrology, as if fully set forth here.

This matter is before DOGM on Water Users' objection to Co-op's automatic five-year permit renewal. Water Users contend Co-op's permit should not be renewed, or should be modified to include additional provisions relating to replacement of water sources. Co-op's entitlement to permit renewal is governed by Utah Code Ann. §40-10-9(4)(a), which provides:

> Any valid permit issued pursuant to this chapter shall carry with it the right of successive renewal upon expiration with respect to areas within the boundaries of the existing permit. The holders of the permit may apply for renewal, and the renewal shall be issued (but on application for renewal the burden shall be upon the opponents of renewal), subsequent to fulfillment of the public notice requirements of Sections 40-10-13 and 40-10-14 unless it is established that and written findings by the division are made that:
> (i) The terms and conditions of the existing permit are not being satisfactorily met;
> (ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
> (iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
> (iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
> (v) Any additional revised or updated information required by the division has not been provided.

The Board has adopted rules implementing this provision. *See* R645-303-233.100 to 233.200.

Water Users have the burden to prove Co-op is not entitled to automatic renewal. Because Water Users have failed to prove any of the above statutory exceptions to renewal apply, Co-op is entitled to renewal of its permit as a matter of law.

ARGUMENT

I. WATER USERS' CLAIMS ARE BARRED BY COLLATERAL ESTOPPEL.

At the informal conference, DOGM raised the question:

> What effect, if any, do the Board's actual findings in a case which is not this case but in a mine which is this mine, and its's the same springs and the same basic issues, to what extent is the Division controlled by those findings of fact?

[Tr.II p.191] That question is expressly answered by Utah Supreme Court decisions adopting the doctrine of res judicata and collateral estoppel.

Res judicata and collateral estoppel are the law in Utah. Searle Bros. v. Searle, 588 P.2d 689 (Utah 1978); Salt Lake Citizens Congress v. Mountain States Tel. & Tel., 846 P.2d 1245 (Utah 1992); State v. Sims, 881 P.2d 840 (Utah 1994); Sevy v. Security Title Co., 902 P.2d 629 (Utah 1995); Jones, Waldo, etc. v. Dawson, 923 P.2d 1366 (Utah 1996). The doctrine is "designed to prevent the relitigation of issues that have been fully adjudicated." State v. Sims at 843. It applies "when there has a been a prior adjudication of a factual issue and an application of a rule of law to those facts." Salt Lake Citizens at 1251-52.

Collateral estoppel, or issue preclusion, is a branch of res judicata. Sevy at 632. Collateral estoppel "arises from a [d]ifferent cause of action and prevents parties or their privies from relitigating facts and issues in the second suit that were fully litigated in the first suit." Sevy at 633 (*quoting* Searle at 690). Moreover, "Although initially developed with respect to the judgments of courts, the same basic policies, including the need for finality in administrative decisions, support application of the doctrine of res judicata to administrative agency determinations. Indeed, the doctrine of res judicata has been applied to administrative agency decisions in Utah since at least 1950. '[T] principles of res judicata apply to enforce repose when an administrative agency has acted in a judicial capacity in an administrative proceeding to resolve a controversy over legal rights and to apply a remedy.' " Salt Lake Citizens at 1251 (citations omitted).

If the elements of collateral estoppel are met, DOGM must apply, and Water Users are bound by, the Board's findings on issues already litigated. Collateral estoppel has four elements. First, were the issues decided in prior adjudications identical with those in the present action? Second, was there a final judgment on the merits? Next, were Water Users parties to the prior adjudication? Finally, were the issues competently, fully, and fairly litigated? Searle at 590; Sevy at 632; Jones, Waldo at 1370. All four elements are satisfied here.

First, an identical issue in both this proceeding and the Board Tank seam hearing is whether Co-op's permit area and Big Bear and Birch Springs are hydrologically isolated. Another identical issue in both proceedings is the adequacy of baseline and other data in Co-op's permit. Yet another identical issue is whether Co-op must prospectively identify a replacement water source.

Second, Utah Code Ann. Section 63-46b-16(1) provides, "The Supreme Court ... has jurisdiction to review all final agency action ...." On June 13, 1995 the Board issued its final order, finding that there was no hydrological connection between the permit area and the springs, that Co-op's baseline and other permit data were adequate, and that Co-op is not required to identify replacement water sources. Water Users petitioned the Utah Supreme Court to review the Board's order. On December 31, 1996 the Utah Supreme Court affirmed the Board's Order. Castle Valley Special Service Dist. V. Utah Board of Oil, Gas & Mining, 307 Utah Adv. Rep. 10 (December 31, 1996). The Board's Order, affirmed by the Supreme Court, is a final judgment on the merits.

Next, Water Users are the same entities who objected to Co-op's Tank seam application.

Finally, the issues were fully and fairly litigated. Water Users argued to the Utah Supreme Court that the Board erred in failing to require Co-op to identify a replacement water source, and that they did not have an adequate opportunity to litigate the hydrological connection *vel non* between Co-op's permit area and the springs. (Water Users did not challenge the adequacy of Co-op's baseline and other data on appeal.) As to the hydrology issue, the Court reviewed the record, rejected Water Users' argument, and expressly held not only that Water Users had full notice and an opportunity to be heard, but that Water Users actively litigated the issues:

> Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda.

Castle Valley, 307 U.A.R. at 13. Water Users had also full opportunity to litigate the adequacy of Co-op's baseline and other data in Co-op's permit. The requirements regarding replacement water were a matter of statutory construction, and the Court held the Board had construed the statute correctly. Those issues were competently, fully, and fairly litigated.

The purpose of collateral estoppel is to protect a litigant from the burden of multiple relitigation of identical issues, and to promote judicial economy, by applying a rule of law that forestalls repetitive litigation of the same issues. There must come a time when DOGM finds enough is enough, and applies collateral estoppel to bar further trial on issues already resolved by

DOGM, the Board and the Utah Supreme Court. That time is now. The springs are hydrologically isolated from the permit area. Co-op's baseline data are adequate. Co-op need not identify a replacement water source. The Utah Supreme Court has affirmed the Board's holdings, and Utah law clearly holds that Water Users are barred by collateral estoppel from retrying those issues. Co-op asks DOGM to include in its decision a specific ruling that collateral estoppel applies to bar further litigation of those issues, in this and in all future proceedings before DOGM.

II. PETITIONERS HAVE NOT MET THEIR *PRIMA FACIE* BURDEN OF PROOF.

Under U.C.A. §40-10-9(4)(a), Co-op is entitled to renewal of its permit as a matter of law unless Water Users affirmatively prove:

(i) The terms and conditions of the existing permit are not being satisfactorily met;
(ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
(iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
(iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
(v) Any additional revised or updated information required by the division has not been provided.

Unless Water Users offer *prima facie* proof in their case in chief, sufficient to overcome the evidence already in the record supporting renewal, Co-op is entitled to have its permit renewed without any further evidence. The record reveals Water Users failed to meet their burden to prove either that any permit term or condition is not being satisfactorily met; or that Co-op's present operation violates its approved plan; or that renewing Co-op's permit would substantially jeopardize Co-op's responsibility on its permit areas; or that Co-op's bond will not continue in effect; or that Co-op has omitted any additional information required by DOGM.[1]

---

[1] This matter raises no issue arising from an alleged surface discharge by Co-op seven or eight years ago. On their face, section §40-10-9(4)(a) and R645-303-230 do not contemplate refusing a renewal based on an alleged, but unproven, isolated permit violation in years long past, even before the last renewal. DOGM correctly ruled during the informal conference that whether in 1989-90 Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.149-150] Whatever the merits may be at this late date as to a potential NOV, the question is irrelevant to the decision now before DOGM, which is whether to renew Co-op's permit.

To avoid undue repetition, Co-op attaches hereto and incorporates by reference, as if fully set forth here, the argument made by counsel at the informal conference, that Water Users have not met their *prima facie* burden of proof. [Tr.II p.170-190, 240-246]

III. CO-OP'S PERMIT SATISFIES THE STATUTES AND REGULATIONS.

A. The Permit Area Is Hydrologically Isolated From The Springs.

Even if DOGM should disregard the doctrine of collateral estoppel, Co-op is entitled to renewal of its permit, because the evidence proves (i) The terms and conditions of Co-op's permit are being met; (ii) Co-op's present operation complies with the approved plan; (iii) A renewal solidifies Co-op's responsibility on its permit area; (iv) Co-op's performance bond remains in full force and effect; and (v) Co-op has provided all updated information required by DOGM.

Water Users' opposition to Co-op's permit renewal rests on the premise that a single aquifer underlies both the permit area and the springs, that the aquifer reaches into the Blackhawk formation up to Blind Canyon seam, that Co-op has intercepted that aquifer, and that the springs are adversely affected as a result.

The only thing is, it just ain't so.

Water Users rely on outdated information from USGS publications, and so-called "expert" opinions that are really nothing more than rank speculation. They ignore uncontroverted site-specific facts which prove their premise false. The evidence shows:

Co-op first began mining at Bear Canyon Mine in 1981. Co-op found almost no water until December of 1989, when it first encountered water at the north end of its permit area. Until 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them.

Big Bear Spring's flow rate, as did local precipitation, began declining more than five years before Co-op first intercepted water. As the area has recovered from its drought, so has Big Bear Spring's flow rate. Present flow for Big Bear Spring are near the upper range of the spring's flow

rate data for 1978-79. Nearby surface fracturing indicates a good near-surface hydrologic connection between Big Bear Spring and Bear Creek, and that the primary recharge for Big Bear Spring is likely from Bear Creek.

Birch Spring's flow rate also began to decline about one and one-half years before Co-op first intercepted water. Birch Spring's present flow rate is also near the upper range of the historical flow data for 1978-79. Birch Spring's flow rate also appears highly dependent on how efficiently the spring collects water through an installed "french drain" from seeps along an 80-foot cliff face. Birch Spring's collection system may just need a call from Roto-Rooter.

Other water sources in the general area also declined in flow from the mid/late 1980's to the mid-1990's, began increasing in early 1995, and now are within historical norms — a pattern consistent with precipitation data, as well as the flow rates for Big Bear and Birch Springs.

The permit area is a virtual "knife edge" consisting of cliffs and steep slopes with no flat surfaces to catch and retain precipitation. This topography causes most precipitation to run off immediately, and makes any recharge from the permit area so minute as to be immeasurable.

Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. Blind Canyon Fault has a 200 foot vertical displacement, is visibly dry, is not transmitting water, and is a barrier to water flow. It is filled with gouge, which if exposed to water would dissolve and wash away, indicating the fault has always been dry. If the fault was not plugged, it would divert water away from Birch Spring and form another spring where it meets the surface 800 feet east of Birch Spring. No such spring exists, proving the fault is plugged. Blind Canyon Fault physically isolates Birch Spring from any mining activity in the permit area.

The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers of Mancos shale 50 to 80 feet thick. The Mancos shale is plastic; it flows under pressure or moisture to seal internal fractures. Even if fractures once formed in the sandstone, those fractures would be sealed in the Mancos shale. The shale's hydraulic conductivity is 10,000 times lower than clay liners used in hazardous waste landfills. The Mancos shale tongues are laterally continuous within the permit area. As a result, water in the Star

Point sandstone flows horizontally but not vertically. The water in the upper aquifers moves to the outcrop, where it evaporates.

Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The entire Blackhawk formation is above the Star Point formation. The Blackhawk formation contains layers of shale as well as the coal seams, which are themselves aquitards. These strata form an additional impermeable hydrologic barrier in the permit area.

Some USGS studies posit a "regional aquifer." The assumption is not based on site-specific information, and is incorrect at least in and around Co-op's permit area. The Mancos shale tongues act as confining barriers for water in the Star Point formation. The Spring Canyon, Storrs and Panther members of the Star Point formation each contain separate aquifers, unsaturated at their south end. The three aquifers have separate potentiometric surfaces, and form three hydrologically disconnected groundwater systems. No water was encountered in test holes until they reached the Spring Canyon tongue of the Star Point formation. Co-op has not intercepted water from the Star Point aquifers. The uppermost aquifer's potentiometric surface is below Co-op's mining operation. The aquifer itself is confined within the Spring Canyon member of the Star Point formation, and the upper level of the water contained in that aquifer is a hundred feet below Blind Canyon seam.

Since the aquifers are not vertically interconnected connected, water in the upper aquifers travels horizontally until it appears at the cliff faces. Moisture and efflorescence on the sandstone outcrops confirm this, not vertical flow through nonexistent fractures, is the actual mechanism for groundwater movement in the upper aquifers.

Big Bear and Birch Springs both issue from the base of the Panther (bottom) member of the Star Point formation. In contrast, the water found at the Blind Canyon seam comes from a perched aquifer in a sandstone channel in the Blackhawk formation above Blind Canyon seam. The channel is not hydrologically connected to the Star Point aquifers. The channel enters the mine from the roof, not the floor. The channel neither dips below nor interrupts the Blind Canyon seam, but does spill out in a "flood plain" lip overlying the top of the seam. The water Co-op first intercepted in late 1989 came from that flood plain lip, and stopped flowing when the lip dewatered. Co-op did

not hit the channel proper until April of 1993. Until one reaches the channel at the north of the permit area, the coal seam is dry.

Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the west side of Blind Canyon fault at the Blind Canyon seam/channel elevation (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than water from either the channel or Birch Spring. While the mine channel water is some 1,500 years old, water from Big Bear Spring is "new" (post-atomic testing) water, less than 20 years old, perhaps only days or weeks underground, showing the water sources are not connected. The confirmed ages of the various waters are more links in the chain proving the waters are not interconnected.

As the Board already found, chemical analysis indicates Birch Spring water is chemically dissimilar from water in the mine. For example Birch Spring water tested at twice the TDS content of the channel water, and was considerably more alkaline. Increased sulfur would decrease alkalinity, yet sulfate levels were three times higher in Birch Spring than in mine water; iron concentrations were three times lower. Sodium concentrations were substantially less, while calcium, magnesium, bicarbonate and chloride levels were substantially greater.

The following are known facts, not mere supposition:

- The area began experiencing declining precipitation in the mid-1980's. Big Bear and Birch Springs began declining in flow rates directly after the drought began, years before Co-op encountered any water in its mining operation, and years before Co-op began any dewatering activity that could possibly have affected the springs..
- While the Blind Canyon seam has been dewatering, the general area has recently experienced increased precipitation, and the spring flow rates have also increased to within pre-mining norms.
- The Mancos shale tongues and the three separate Star Point aquifers, the observed surface moisture and efflorescence where the sandstone containing those aquifers outcrops at the surface, the shale and coal layers in the Blackhawk formation, the general dryness of the coal seams throughout the permit area, the known lack of significant fracturing or faulting within the permit area, and the "knife-edge" surface topography, all evidence the permit area does not recharge the springs, but is hydrologically isolated from the springs.
- The presence and characteristics of Blind Canyon Fault, including the presence of gouge in the fault and the lack of a spring where the fault intercepts the surface, establishes the fault as a hydrologic barrier between the permit area and Birch Spring.

- Chemical analysis evidences the channel and Birch Spring waters are dissimilar.
- The known characteristics of the sandstone channel, including the facts that the channel in all places is above Blind Canyon seam, that water in the north of Co-op's permit area enters from the roof and not from the floor, and the respective ages of water from the channel and aquifer waters, show that the channel water is not connected to the Star Point aquifers.
- Radioisotope dating of the waters in the area, including the channel water, the water west of Blind Canyon fault at channel elevation, the aquifers, and the springs, evidence those waters are not interconnected, and that Big Bear Spring and the channel water in particular are not connected.
- The calculated pre-mining flow rate of 1.2 g.p.m. for the channel water, which is the only significant water source ever encountered in Co-op's mining operation, is insufficient to account for the observed decreases and more recent increases in spring flow.

The only reasonable conclusion to be drawn from the evidence as a whole is the one contained in Co-op's PHC and in DOGM's CHIA, the one previously found by the Board as a fact, and affirmed by the Supreme Court — that the permit area is indeed hydrologically isolated from the springs, and that Co-op's mining operation will not cause material damage to the hydrologic balance outside the permit area.

B. Water Users' Theories Depend on Demonstrably False Assumptions.

Water Users' theories and expert "opinions" require making assumptions which ignore the known facts. Applying the facts to Water Users' theories leads to absurd results:

Elementary head (water pressure) calculations show for the decline in flow rates of Big Bear and Birch Springs to be attributable to Co-op dewatering a regional aquifer feeding the springs, Co-op would have to have hit a water table which is some 300 feet higher than where the upper Star Point aquifer is known to be, and Co-op would have to have intercepted significant water a mile or more farther south than where it did.

Calculations show the pre-mining channel flow rate was on the order of 1.2 g.p.m. The combined flow from Birch and Big Bear Springs is on the order of 200 g.p.m. If the spring water came from the channel, it would have been dewatered ages ago. That the channel still contains a great deal of 1,500 year old water shows the channel is not the source of the springs' water.

If Big Bear Spring was recharged from the permit area, water would, while traveling a short way horizontally, have to: (a) enter the ground in the permit area; (b) flow through hundreds of feet

of sandstone, shale and coal in the Blackhawk formation, which mining has proven completely dry and not materially fractured; (c) take 1,500 years to reach the sandstone channel ; (d) take an indeterminate time to percolate to the top of the Star Point formation, then through aquifers containing water at least 500 years newer than itself; (e) flow through at least two impermeable layers of shale and clay totaling 100 to 200 feet thick; then (F) appear in Big Bear Spring as water having been underground for less than 20 years. If Birch Spring was recharged from within the permit area, water would have to complete the same general obstacle course described above for Big Bear Spring; and in addition cross Blind Canyon fault, which must at the same time be both open (to permit the water to cross the fault) and closed (to prevent the water from issuing where the fault reaches the surface). It would also have to go through a perched aquifer with 5,500 year old water, and flow thousands of feet horizontally, before appearing at the surface as 1,500 year old water. It just couldn't happen that way.

Water Users' theory assumes the permit area is extensively fractured. Observations of actual conditions found in the course of mining prove that assumption is incorrect, that the area contains only a very few minor fractures, most of which are near the surface.

Since the channel water and Birch Spring water are estimated at about the same age, for the channel water to appear at the spring, the water would have to take 1,500 years to reach the channel, then travel a similar distance from the channel to the spring in virtually no time. This could not occur unless the area has almost no fractures north of the permit area, where Water Users claim a major "fracture zone" exists, but has abundant fractures in the permit area itself, which by direct underground observation is known to be untrue. If the area was fractured as Water Users claim, either the spring water would have to be hundreds of years older than the channel water, which it is not, or the channel water would have to be hundreds of years younger than it is.

Water Users' theory not only cannot account for the observed facts regarding the area's geology and hydrology, it depends for its very existence on assumptions the known facts prove to be untrue. Again, the only reasonable conclusion to be drawn from the evidence as a whole is that the permit area is hydrologically isolated from the springs.

C. Co-op's Permit Satisfies The Specific Questions DOGM Has Raised Regarding Interpretation Of The Regulations.

1. The Regulations Require More Than A *De Minimis* Impact.

The question is whether Co-op is meeting the conditions of its existing plan. The controlling law, Utah Code Ann. §40-10-11(2)(c) and R645-300-133.400, requires only that Co-op's operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The related regulations merely expound on this basic requirement. For example:

> R645-301-724.300. Each application will include geologic information ... to assist in: 724.320. Determining ... whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-724.600. ... [T]he applicant will provide a survey that shows ... whether subsidence, if it occurred, could cause material damage or diminution of reasonably foreseeable use of aquifers or areas for the recharge of aquifers.
>
> R645-301-729.100. The CHIA will be sufficient to determine ... whether the proposed coal mining and reclamation operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-742.311. All diversions will be designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area ...
>
> R645-301-750. All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area ...

The regulations taken as a whole, from the initial permit application through reclamation, including hydrologic assessments in the PHC and CHIA, underground and surface operation of the mine, discharges and diversions, subsistence control, and all preventative, remedial or monitoring measures, do not require a permittee to demonstrate there will be no impact on hydrology outside the permit area. Indeed, the regulations appear to assume there will be some impact. They contemplate the issuing and renewal of permits designed to minimize rather than eliminate hydrologic disturbances within the permit area, and to prevent material rather than all damage to the hydrologic balance outside the permit area.

Nothing in the regulations requires DOGM or Board action on a permit renew based on a *de minimis* impact to the hydrologic balance outside the permit area. The concept of "material damage" contemplates more than a *de minimis* impact. The regulations clearly allow the renewal

of a permit without modification even with some damage to the hydrologic balance, if the damage is less than material. Under U.C.A. §40-10-6.5(2), Board regulations may not be more stringent than the corresponding federal regulations. 30 CFR Parts 715.17, 717.17 and 817.41 also require only that mining activities be conducted "to prevent material damage to the hydrologic balance outside the permit area ..."

R645-301-731 in particular provides that DOGM may require additional measures to assure that material damage to the hydrologic balance outside the permit area is prevented. That language on its face bars DOGM from requiring a permittee to prevent even a *de minimis* impact.

Co-op sees the idea of a *de minimis* impact as not so much a question of law as one of fact. Big Bear Spring flow rates have varied greatly over the past two years, from a low of 76 g.p.m. in mid-1995 to a current flow rate of about twice that amount. The variation cannot not be accounted for by the 1.2 g.p.m. pre-mining flow rate from the sandstone channel. It fact, the variation cannot be explained at all by assuming the Panther aquifer is hydrologically connected to the sandstone channel. Obviously, some other mechanism must be a primary cause of variation in the spring. Since another mechanism, most likely variations in precipitation, must necessarily be responsible for variations on the magnitude shown, and since the evidence does not point to the channel as a likely source of spring water, it is impossible to say with any confidence that any variation in spring flow is attributable to any part of the 1.2 g.p.m. pre-flow rate from the channel. With the burden of proof on Water Users, the question must be resolved in Co-op's favor. The evidence is simply insufficient to support a finding that any of the 1.2 g.p.m. would eventually make its way to Water Users' springs.

2. DOGM May Not Order Water Replacement Absent A Showing An Adverse Impact Has Already Occurred.

Water Users are not entitled to an order requiring Co-op to identify a replacement water source. Petitioners argue an unspecified future event may have some unknown impact on Big Bear Spring or Birch Spring. No one has a crystal ball, and the Regulations do not require a specific contingency plan for every possible future event. R645-301-731.800 addresses the relief Petitioners

seek, that CWM replace the water supplier of an affected land owner "where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities." Even assuming Water Users qualify as owners of affected real property, they have offered no evidence whether Co-op's permit provides for compliance with this requirement. As Co-op and DOGM both pointed out to the Board in the Tank seam hearing, the permit does so provide.

The Utah Supreme Court has already construed similar statutory language against Water Users. In Castle Valley Special Services District v. Utah Board of Oil, Gas & Mining, 307 U.A.R. 10(Dec. 31, 1996) (the Co-op Tank Seam case), Water Users argued that, under 30 U.S.C. §1309(a), Co-op should be required to identify a replacement water source. The Board declined to require Co-op to do so. On appeal, the Utah Supreme Court expressly held a statutory requirement to replace water "which has been affected" by Co-op's operation "does not authorize water resource identification as a preventative measure." Id. at 11. The language on its face applies only in the past tense. "In short, there must be a showing that a water supply has been affected by underground mining coal mining operations for the statute to impose a requirement of replacement." Id. At 12. The Supreme Court also affirmed the Board's finding of fact that Water Users had failed to prove that Co-op has damaged the springs." Id. DOGM is obliged under collateral estoppel to apply that same fact here.

The Regulations do not require CWM to prove that Big Bear and Birch Springs will be completely unaffected by any possible scenario. There is no requirement even for information on water availability and alternative water sources unless DOGM finds that mining the Tank seam would cause contamination, diminution, or interruption of the springs. The evidence does not support such a finding.

PROPOSED FINDINGS OF FACT

Co-op requests that DOGS find the following facts from the evidence in the record.

The Record On Co-op's Tank Seam Application

1. In 1981 Co-op first began mining coal in Bear Canyon Mine. [Board Tank Seam hearing Transcript (hereafter Board Tr.) p.168] For about 8 years Co-op found no significant water in the mine. Before 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. In 1991 Co-op first began discharging between 30 and 60 gallons per minute. [Board Tr. 184-185; Board Ex. C p.2-13, 14, Tables 2-5 & 2-6]

2. In 1993 Co-op applied for a permit revision to allow mining the Tank seam. The application included Appendix J-7, "Probable Hydrologic Consequences of Mining at Bear Canyon Mine, Emery County, Utah," and Appendix 7-N, "Revised Hydrogeologic Evaluation of the Bear Canyon Mine Permit and Proposed Expansion Areas." Water Users objected, and on December 9, 1993 participated in a DOGM informal conference. On July 20, 1994 DOGM issued a Technical Analysis which incorporated the finding in DOGM's revised CHIA that

> "The review of water source information, the graphical tracking of precipitation versus flow, the testing of the spring water and mine water quality for tritium dating, analysis of water quality chemical data using Stiff and Piper diagrams, and the known presence of three separate piezometric surfaces ... leads to a conclusion of no significant material damage to the Hydrologic Balance outside the permit area."

The Division then approved CWM's application.

3. Petitioners appealed to the Board, which held a formal evidentiary hearing. Co-op rather than Water Users bore the burden of proof at that hearing. Water Users gave evidence on their theory that mining the Tank seam would affect the springs because the permit area was rife with vertical faults and fractures, that a single aquifer underlaid the area, and that Co-op's mining operation had intercepted the aquifer and was impacting the springs — in other words, the same theory Water Users argue to DOGM in this proceeding. [Board Tr. 103-164] Co-op presented evidence to support its claim that mining the Tank seam would not adversely affect the springs

because the permit area is hydrologically isolated from the aquifer feeding the springs. [Board Tr. 207-267, 280-368]

4. The evidence showed there is no "regional aquifer" in the area. Underlying the permit area are three distinct aquifers, each separated from the others by thick layers of Mancos shale. The shale is plastic; it flows under pressure to seal internal fractures. Even if fractures are formed in the sandstone, those fractures seal in the Mancos shale, which therefore isolates the permit area from the springs. The springs discharge from the bottom aquifer. The top boundary of the upper aquifer is well below Blind Canyon seam even at the northernmost boundary. Water in the mine is from a perched aquifer above Blind Canyon seam, and is not part of the aquifer feeding the springs. [Board Tr. 208-209, 215, 223, 255-260, 284-285, 288-289, 311-313, 319-326, 346, 358-362,367-368; Ex. D p.4-8] Water Users conceded if the aquifers were not connected by faults, water from the upper aquifers would appear at the cliff faces. That is just what occurs. [Board Tr. 168-170; Ex. 14; Ex.D p.2-22 — efflorescence on sandstone outcrops shows slow groundwater movement; water evaporates on contact with the atmosphere.]

5. The permit area surface is a virtual "knife edge" with no flat surfaces to catch and retain precipitation. The steep topography causes most precipitation to run off immediately. [Board Ex.1,6; Ex.D Fig.1-1,2-3] Tritium tests proved Big Bear spring water is of a different age, and therefore hydrologically isolated, from water in the mine. [Board Tr. 287-288, 368] A major fault, Blind Canyon Fault, was shown to physically isolate Birch Spring from the permit area. [Board Tr. 212-213, 265-267, 293-294, 365-366] Chemical testing also indicated Birch Spring is hydrologically isolated from Co-op's mining operations [Board Tr. 290, 303-304, 326-327, 367; Board Ex.18; Ex. D p.2-25,31-34,39

6. DOGM carefully reviewed Co-op's application and found (a) the application was complete and accurate; (b) Co-op had complied with all requirements of the state program, (c) Co-op's permit had the baseline data required for approval of the permit; (d) the springs are hydrologically disconnected from the permit are; and (e) the proposed operation was designed to

prevent material damage to the hydrologic balance outside the permit area. (Co-op's present permit is no less complete.) [Board Tr. 368-379, 410-411, 415, 417-418]

7. On June 13, 1995 the Board issued its Order upholding DOGM's approval of Co-op's application to mine the Tank seam, incorporated by reference as if fully set forth here. Water Users appealed to the Utah Supreme Court, which in a December 31, 1996 Opinion affirmed the Board's Order in its entirety. Under the doctrine of collateral estoppel [Point I *infra*],DOGM is bound by the Board's Order and the Utah Supreme Court's Opinion affirming the Order.

Co-op's Permit Area

8. Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The coal is an aquitard. There is no hydrologic connection between the coal seams. [Tr.III p.49, 58-59] The Blackhawk formation rests on the Spring Canyon (upper) member of the Star Point formation. The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers Mancos shale 50 to 80 feet thick. The Mancos shale tongues are laterally continuous within the permit area. The Blackhawk formation also contains many layers of shale as well as the coal seams. [Tr.III p.129, 162, 175, 238, 283; Ex. C-7] These strata form a horizontal barrier between the Blackhawk formation and the Star Point Panther member. [Tr.III p.129, 157; Ex. C-7]

9. Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. [Tr.III p.137] Blind Canyon Fault is visibly dry [Tr.III p.34-36, 92, 139], is a barrier to water flow, not a conduit for water, and is not transmitting water. [Tr.III p.43-44, 49, 115,276] The Blind Canyon Fault is filled with gouge, which if exposed to water would dissolve and wash away, further indicating the fault has always been dry. [Tr.III p.35, 115; Ex. C-6] There is no water coming into the mine at the Bear Canyon fault. [Tr.III p.270]

10. Sandstone may fracture in response to tectonic forces. Shale is plastic — it flexes, and does not fracture at the same rate as sandstone. What fractures do occur in the shale seal when exposed to moisture or pressure. [Tr.III p.140-141, 217] The shale's hydraulic conductivity is 10^{-11} to 10^{-12} cm/sec., a million times less than sandstone, and 10,000 times lower than clay liners

used in hazardous waste landfills. [Tr.III p.213-214] As a result, water in the Star Point sandstone flows not vertically but horizontally until it reaches the surface. [Tr.III p.147-148, 190, 192] The water in the upper aquifers moves to the outcrop, where it evaporates. [Tr.III p.193-195] Observations during the October 17, 1996 mine site visit confirmed the presence of moisture at the exposed sandstone faces, showing the water in the upper aquifers indeed flows not vertically, but horizontally until it discharges by seeping out and evaporating at the outcrop.

11. Some USGS studies have assumed a "regional aquifer." The assumption was not based on site-specific information, and is incorrect at least in and around Co-op's permit area. [Tr.III p.87-88] The Mancos shale tongues act as confining barriers for water in the Star Point formation. [Tr.III p.131] Each of the three aquifers has a separate potentiometric surface. [Tr.III p.132, 174] They form three hydrologically disconnected groundwater systems. [Tr.III p.241] Test holes have established there is no water in the Blackhawk formation; no water was encountered until the test holes reached the Spring Canyon tongue of the Star Point formation. [Tr.III p.247] The uppermost potentiometric surface is in the Spring Canyon sandstone, well below the Blackhawk formation where the coal seams are located. [Tr.III p.219; Ex. C-7]

12. The Star Point sandstone water flows generally southward. [Tr.III p.199] Recharge occurs northward outside the permit area. [Tr.III p. 201, 217, 243] The Tank seam is completely dry throughout. [Tr.III p.8, 53-54] The Blind Canyon seam has been extremely dry. Co-op found almost no water until December of 1989, when it intercepted water at the north end of its permit area. [Tr.III p.8,12,30] That water is in the Blackhawk, not the Star Point formation. [Tr.III p.240] Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them. [Tr.III p.139-140] The water Co-op encountered in the Blind Canyon seam comes down from the roof, not up from the floor. [Tr.III p.33-34, 137, 158]

13. Co-op has not intercepted water from the Star Point aquifers. [Tr.III p.101] The water in the mine comes from a perched aquifer in a sandstone channel above Blind Canyon seam. [Tr. I p.103; Tr.III p.37-38, 90, 133-136, 156; Ex. C-5] The channel is not hydrologically

connected to the Star Point aquifers. [Tr.III p.49, 247] The channel enters the mine from the roof, not the floor. [Tr.III p.80, 247] The channel does not interrupt or dip below the Blind Canyon seam, but does spill out in a "flood plain" lip over the top of the seam. [Tr.III p. 133-136] Until one reaches the channel, the coal seam is dry. [Tr.III p.56] The water Co-op first intercepted in late 1989 came from the channel's flood plain lip. [Tr.III p. 104-105, 233] Co-op did not hit the channel itself until April of 1993. [Tr.III p.202; Ex. C-1]

14. Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the other side of Blind Canyon fault (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than the channel water. [Tr.III p.40, 70, Tr.III p.39, 51, 248; Ex. C-3]

15. Calculations using the age and intra-mine flow show the pre-mining channel flow rate was on the order of 1.2 g.p.m. This is minuscule considering the volume of water contained in the aquifer. [Tr.III p.45-46; Ex. C-5] Flow through the channel is blocked by Blind Canyon fault on the west, by Bear Canyon fault on the east, and by Blind Canyon seam below. [Tr.III p.58-59, 92-93] Before mining, that 1.2 g.p.m. of water may have been discharging to a spring in the permit area, to a creek, or to evaporation at the outcrop. [Tr.III p.46]

16. If the springs were fed from the channel, they would have dewatered the channel ages ago. [Tr.III p.83] The fact that the channel still contains a great deal of water further indicates the channel is not the source of the springs' water.

Big Bear And Birch Springs

17. Big Bear Spring and Birch Spring both issue from joints in the base of the Panther member of the Star Point formation. [Tr.I p.99; Tr.III p.139, 159, 240]

18. Comparisons of spring flow and precipitation data show Big Bear Spring responds to precipitation. [Tr.III p.189, 207-209; Ex. C-10] According to Water Users' own data, Big Bear Spring's flow rate, as did local precipitation, began declining as early as 1984, five or more years before Co-op first began intercepting water in its mining operation. As the area has

recovered from a ten-year drought, Big Bear Spring's flow rate has also recovered, from a low of 76 g.p.m. in mid-1995 to 148 g.p.m. in late 1996. Present flow rates are well within the range of the spring's flow rate data for 1978-79, taken before the local drought and before Co-op began mining. [Tr.1 p.30; Tr.III p.206-207; Ex. 4 Plates 2, 7; Ex. C-10]

19. Water Users have not tested the water in Bear Creek. [Tr.III p.298] Nearby surface fracturing indicates a good hydrologic connection between Big Bear Spring and Bear Creek. The primary recharge for Big Bear Spring is likely from Bear Creek. [Tr.III p. 50, 89, 116, 162]

20. Birch Spring is some 800 feet to the west of Co-op's permit area and is physically separated from the permit area by two major faults, including Blind Canyon fault, which acts as a barrier to water flow. [Tr.III p.138; Ex. 5; Ex. C-8, C-9; observations from site visit]

21. Birch Spring flow is also precipitation related. [Tr.III p.189] Its flow rate began to decline in mid-1988, about one and one-half years before Co-op first began intercepting water. [Ex. 4 Plates 1, 7] Birch Spring's flow in recent years is near the upper range of the historical flow data for 1978-79. [Tr.III p.209-211. Ex. C-11]

22. The Board's June 13, 1995 Order specifically found Little Bear Spring was not useful as a control. Even so, Water Users' data show Little Bear and Upper Tie Fork Springs declined in flow from the mid/late 1980's to the mid-1990's, and began increasing in early 1995 — a pattern similar to that shown in the precipitation data, and the flow rates for Big Bear and Birch Springs as well as Huntington Creek. The common factor is the area's weather pattern. [Ex. 4 Plates 1, 2, 3, 4, 6] The spring hydrographs show the beginning declines in flow at the springs were immediately preceded by spikes (or, in Plate 3, a discontinuity) in mid-1988. At the time Co-op had not encountered or begun discharging water from the mine. Water Users' expert testified the spikes were likely caused by an earthquake known to have occurred in the area just prior to the spikes and resulting drop-offs in spring flow. [Tr.II p.107; Ex. 4 Plate 5]

23. If the decline of Big Bear and Birch Springs was the result of Co-op ~~denaturing~~ dewatering a regional aquifer feeding the springs, Co-op would have hit water where the potentiometric surface first intersects the coal seam. For this to have occurred the upper water table would have been

about 300 feet higher than it actually is, and Co-op would have intercepted significant water a mile farther south than where it did. [Tr.III p.220-222]

The 1989-90 Spring Anomalies

24. In 1990 Co-op applied for a permit renewal, which Water Users opposed due to alleged contamination of the springs and failure to safeguard against future contamination. [Water Users' 03/13/91 and 03/21/91 memoranda] Water Users relied on the same alleged anomalies in the springs now being raised again by Water Users in this proceeding. DOGM conducted an informal conference, and on May 20, 1991 entered an Order which provides in part:

> FINDINGS OF FACT
>
> 4. Geologic and hydrologic evidence provided by the parties suggests that the potentiometric surface of the Blackhawk-Star Point aquifer is below the level of current mining in the Bear Canyon Mine.
>
> 5. The necessary information is available for evaluation of the hydrology within the existing Bear Canyon Mine workings.
>
> 6. There is no evidence that mining within the presently permitted coal seam in the Bear Canyon Mine will impact the potentiometric surface of the Blackhawk-Star Point aquifer.
>
> CONCLUSIONS OF LAW
>
> 19. Protestants have set forth factual contentions to support their allegations that four of the five statutory exceptions to renewal are present. The Division concludes that protestants have failed to support these allegations.
>
> ORDER
>
> 22. The Permit for Co-op Mining Company's existing mining operation at the Bear Canyon Mine (ACT/015/025) is hereby renewed ....

Water Users did not appeal DOGM's Order.

25. DOGM has already ruled in this proceeding that whether Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.150]

26. There is no limit to the amount of water that can be discharged under a permit. There never has been such a limit to Co-op's permit. [Tr.III p.292] Co-op did not have a water discharge point by the ventilation fan. Co-op did not discharge water into the old workings in the summer of 1989. Co-op did not even encounter water in the mine until December of that year. [Tr.III p.292, 294] The spring anomalies remains a mystery which will likely never be resolved.

CONCLUSION

Based on the above, Co-op asks DOGM to deny the relief sought by Water Users, and to reaffirm its prior decision to approve Co-op/s permit renewal.

DATED this 2 day of May, 2997.

Attorney for Co-op Mining Company

CERTIFICATE OF SERVICE

I certify on May 8, 1997 I caused the above document to be served by first class mail to the following:

J. Craig Smith
David B. Hartvigsen
NIELSEN & SENIOR
60 East South Temple, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
North Emery Water Users' Association and
Huntington-Cleveland Irrigation Company

Jeffrey W. Appel
Benjamin T. Wilson
COLLARD, APPEL & WARLAUMONT
9 Exchange Place, Suite 1100
Salt Lake City, Utah 84111
Attorneys for
Castle Valley Special Service District

2006p.006

Jeffrey W. Appel (3630)
Benjamin T. Wilson (5823)
W. Herbert McHarg (7573)
APPEL & WARLAUMONT
9 Exchange Place, #1100
Salt Lake City, Utah 84111
Telephone: (801) 532-1252

Attorneys for Castle Valley
Special Service District

J. Craig Smith (4143)
David B. Hartvigsen (5390)
NIELSEN & SENIOR
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Telephone: (801) 532-1900

Attorneys for North Emery Water Users Association
and Huntington-Cleveland Irrigation Company

BEFORE THE DIVISION OF OIL, GAS, AND MINING

DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY BEAR CANYON MINE EMERY COUNTY, UTAH	))))))	OBJECTORS' JOINT POST INFORMAL CONFERENCE MEMORANDUM AND CLOSING ARGUMENT Docket No. 95-025 Cause No. ACT/015/025

Petitioners Huntington-Cleveland Irrigation Company, North Emery Water Users Association and Castle Valley Special Service District (collectively "Water Users"), by and through their counsel of record, respectfully submit the following Objectors' Joint Post Informal Conference Memorandum and Closing Argument.

INTRODUCTION

Renewal of mining permits such as the permit at issue is governed by R645-303-230, et seq. Of specific importance to this proceeding are R645-303-233.110 which forbids renewal unless the terms and conditions of the existing permit are being satisfactorily met, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, and R645-303-233.200 which places the burden of proof on the opponents of the renewal.

As will be discussed in detail below, the informal conference held on October 17, 1996, November 8, 1996 and February 28, 1997 revealed that the requirements governing the hydrologic portions of the existing permit are not being satisfactorily met. The same is true for the environmental protection standards. Each of these grounds and the other grounds set forth herein require that the permit of Co-op not be renewed, and mining cease until such time as these requirements can be met.

POINT I

CO-OP HAS ADMITTED THAT THE HYDROLOGIC INFORMATION UPON WHICH THE PERMIT WAS ISSUED IS ERRONEOUS

A permit to mine coal may only be issued upon submission of specific information in the form of a Permit Application. See R645-300-112.400. The Applicant is required to provide specific hydrologic information as set forth in R645-301-700, et seq. This hydrologic information submitted by the Applicant, commonly known as the Probable Hydrologic Consequences or "PHC," forms the basis for the Division's assessment of the probable

cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance and must support the Division's required determination that the operation has been designed to prevent material damage to the hydrologic balance outside the permit area. R645-300-133.400.

During the informal conference, it became obvious that at best the hydrologic information previously submitted by Co-op as part of its permit application under R645-301-700, et seq. is flawed and inaccurate, thus requiring a resubmission of new and corrected hydrologic information prior to permit renewal. Further study and monitoring is required as well.

At the informal conference, Co-op changed its prior position with respect to the hydrologic data submitted as part of its permit application and upon which its permit was granted. A new theory of hydrology was enunciated by Co-op's new consultant--Alan Mayo. That theory, that the mining operation of the Bear Canyon Mine has encountered a sandstone water channel, is totally new and at variance with the hydrologic information previously submitted by Co-op as part of its permit application. The abandoned theory relied upon continuing interception of small perched aquifers, rather than interception of the potentiometric surface, which is Water User's position or an underground water conduit as postulated by Mayo at the recent hearings.

Mayo's testimony is premised on an entirely different theory of hydrogeology than the theory advanced in the PHC. The PHC describes the stratigraphic sequence as a "great thickness of <u>discontinuous</u> sandstone, coal, and mud/siltstone units." PHC at 2-6. In the PHC, Co-Op states:

> Groundwater enters the Blind Canyon Seam of the Bear Canyon Mine through fractures and roof bolt holes. Typically, water encountered by roof bolt holes flows moderately at first. Over a period of one or two months, flow decreases and eventually stops. Sources of these short-lived flows are inferred to be localized perched aquifers which store a limited amount of water.

PHC at 2-13.

The PHC also states that "[d]rainage of water from faults and fractures produces the largest volume of water flowing into the mine." PHC at 2-33.[1] At the recent hearing, Richard White testified that this statement is incorrect, stating that "the largest volume of water flowing into the mine is from the sandstone channel." HT III. at 260. This alone establishes that the hydrogeologic information upon which the permit was issued is erroneous.

According to Mayo, the sandstone "channel" above the mine is "a broad-based channel as well as being a long channel." HT III. at 41. Under his theory, it is this "channel" that is producing all of the water in the mine. Mayo stated that it appears to him "that the Blind Canyon Fault does not transmit water, in other words, acts as a barrier for groundwater which will be in overlying rocks and likely underlying rocks associated with the coal seams. It is likely that the large fault up Bear Canyon is -- also inhibits the flow of groundwater." HT III. at 49.

This "channel" would be classified as an aquifer with water moving through it. HT III. at 89-90. Mayo's testimony indicates that this water originally moved only horizontally, but mining activity has allowed the water to flow vertically. He stated that "I don't believe that those coal seams prior to this mining activity would allow it to be moving much -- to be

---

[1] The Revised Hydrogeologic Evaluation went on to state that "[m]ost of the water movement in the study area is through fractures, faults, and partings between the beds." RHE at 2-14.

moving vertically." HT III. 90. The PHC did not address this theory or this particular impact of mining because "the initial hydrogeologic evaluation in the PHC did not specifically address the channel because it hadn't been encountered at the time it had been written." Testimony of Chris Hansen, HT III. at 232.

Mayo also stated he did not know whether the conclusions of the PHC conformed to his conclusions because he had not "reviewed the PHC in terms of "Is this PHC adequate?" HT III. at 94-95. His lack of contact with the prior findings and theories of Co-op led to an entirely new theory of the hydrogeology of the mine and different mine discharge numbers than those contained in the PHC or the CHIA. HT III. at 123. Therefore, his testimony, on its face, attacks the adequacy of the PHC. Of course, Objectors presented an entirely different theory, fully supported in a variety of different ways and by independent methods. Certainly Co-op must be required to resolve these disparities and fully answer all of the hydrologic and hydrogeologic questions prior to the continuation of mining. Unanswered questions and open issues do not meet the legal requirements attendant to this proceeding.

Co-op, through the submission of the expert testimony of Mayo, has admitted that the existing permit was issued upon flawed and inaccurate hydrologic information in Co-op's PHC. The Division's hydrologic assessment, which is based on the now admittedly flawed and inaccurate information, is not valid. The hydrologic terms and conditions of the permit cannot possibly be met as those terms and conditions are incorrect, flawed and do not meet the requirements of R645-303-233.110. The permit may not be renewed at this time.

POINT II

CO-OP IS INTERCEPTING AND RE-DIVERTING WATER THAT WOULD OTHERWISE PROVIDE FLOW TO OBJECTORS' SPRINGS AND THUS IS NOT COMPLYING WITH ENVIRONMENTAL PROTECTION STANDARDS

A second ground for non-renewal of the permit is the non-compliance with the environmental protection standards in the state program. In the area of hydrology, the relevant standards are to prevent material damage to the hydrologic balance outside the permit area (R645-300-133.400) and to replace any water rights that are affected in quantity or quality, (Utah Code Ann. § 40-10-18(15)(c) (1997).) As set forth below and at the informal conference, the non-compliance of Co-op with the relevant environmental protection standards was established by the Water Users.

A. The interconnection between water within the Bear Canyon Mine and Big Bear and Birch Springs was admitted.

At the informal conference an important fact was established. For the first time and in direct contravention of its statements at the time of renewal in 1990-1991, and at the significant review hearings, Co-op admitted it pumped vast quantities of water intercepted at the working face of the mine into a worked-out portion of the mine and elsewhere, during the 1989-1992 time period. See HT III. at 25; 250; 292. It was during this same time period that anomolously high flows and water quality problems were experienced in Big Bear and Birch Springs. The testimony of Charles Reynolds, Gaven Atwood and others substantiated these illegal actions. HT II. at 217-238; HT III. at 25. The import of this admission is that the hydrologic interconnection between the mine and the springs undisputably exists. In other words the water inside the mine can and does reach and feed the springs of Water Users.

B. The groundwater system through the area of the Bear Canyon Mine is connected with the Recharge on Gentry Mountain and Big Bear and Birch Springs.

Testimony at the hearing demonstrates that the Gentry Mountain groundwater system is interconnected. In his testimony, Mr. Peter Nielsen agreed that the interconnection between Birch Spring and the mine was demonstrated by the spike flow out of the spring when the mine water was being discharged out of the portals. HT II. at 129. According to Mr. Nielsen, this "shows the fractured nature of the system where you discharge out the portal into Dry Creek and you get peak flows several weeks or less than a week later in Birch Springs downgradient several thousand feet." HT II. at 130. Mr. Nielsen:

> identified a trend associated with that fracture in aerial photographs and also identified that same fracture zone in subsidence associated with Trail Canyon Mine in Dry Creek. So it's an interaction of discharging water on the surface going into the subsidence and interacting with any water in Trail Canyon, some volume of water in there probably saturating the system, saturating the fault and having some sort of failure, or simply recharging the zone.

HT. II. 131. Nielsen was able to conclude that there "is no difference in the recharge location" for the water from Birch Spring, Big Bear Spring and the mine -- all are recharged from snow pack on Gentry Mountain. HT II. 77. Significantly all experts who testified agreed that Gentry Mountain provides the recharge for both water in the mine and the springs.

C. Activities in the Bear Canyon Mine which re-direct or contaminate water do not comply with Environmental Protection Standards.

With the hydrologic interconnection between the mine and the springs established, the Division must conclude that activities which re-direct or contaminate water do not comply with Environmental Protection Standards of the Division in violation of R645-303-233.120. They also damage the hydrologic balance outside the permit area in violation of R645-301-750. As

was established at the Informal Conference, when the Bear Canyon Mine was first permitted, and during its early years, it was virtually dry. HT III. at 8. However, as mining proceeded to the north, significant and continuous flows of water were encountered and continue to be encountered today. As discussed above, this encountered water is hydrologically connected with Big Bear and Birch Springs.

POINT III

THE PHC CONTAINS FALSE AND INACCURATE STATEMENTS AND LACKS AN ADEQUATE AMOUNT OF BASELINE DATA, AND THE CHIA FAILS TO ADDRESS THE CUMULATIVE HYDROLOGIC IMPACTS OF MINING

A. The PHC Contains False and Inaccurate Statements

In addition to the revision of existing hydrologic information and theory provided by Mayo, there are numerous false and inaccurate statements in the PHC which also demonstrate its inaccuracy and unreliability.

Co-op has stated that the "volume of groundwater flow into the mine has only recently increased sufficiently to produce water in excess of that needed for mine operations." PHC at 2-33. This statement is a factual misrepresentation as we know Co-Op encountered at least 110 gpm of water in the 1st North section of the mine in the summer of 1989. This fact is evidenced by pages 3-1 and 3-2 of the Hydrogeologic Evaluation of the Bear Spring Mine Permit and Proposed Expansion Areas by Earthfax Engineering, Inc. dated March 11, 1991, which states:

> The East Bleeder inflow remained constant until the summer of 1989, when water was encountered at the northern end of the North Main entries. According to Wendell Owen, the mine intercepted a flow of about 110 gpm. This flow occurred mainly from fractures and roof bolt holes in the roof and has essentially remained constant since it was first encountered.

There are other documents that evidence water prior to 1991. The C.W. Mining Co. mine map dated December 1, 1989 Bear Canyon Plate 7-1A shows that Co-Op hit "Seeps/Drippers - 110 GPM" in the 1st North area on August 3, 1989 when this area was mined out. Each of Co-Op's mine maps from this time forward have shown this flow is continuing. For example, the Co-Op Mining Company Mine Water Survey Map, dated January 1, 1992 Plate 7-10A shows the 1st North area producing 120 gpm, and the 2nd East Bleeders area producing 252 gpm. Further, the Co-Op Mining Company Annual Report 1990, page A-14, shows that Station SBC-9, which is the first North area, produced flows of 120 gpm to 97 gpm during 1990.[2] The 1991 Annual Report states that Station SBC-9 produced from 81 to 140 gpm in 1991. This evidence clearly establishes that Co-Op hit major amounts of water in 1989.

An important question is presented as to what Co-Op did with all this water once it was encountered. According to the Co-Op Mining Company Annual Report for 1990 page A-2, the Total Water Usage for 1990 in the mine was 994,600 gallons (3.052 acre feet). This yields an average usage of 2,725 gallon per day. However, in the same report, they provided data relative to inflow in the 1st North area of the mine at a mean flow of 114.25 gpm for the year. Annual Report 1990 at A-14. The flow of 114.25 gpm is equal to 164,520 gallons per day or 60,049,800 gallons per year (184.3 acre feet). Thus, the difference between the water used and the water produced in 1990 is 59,055,200 (181 acre feet) -- where did this water go? That question, as well as where the water would have gone but for its interception must be answered before mining may continue and the lost water must be replaced.

---

[2] This 1990 report was used because DOGM either does not have, or is unable to locate a 1989 annual report.

Co-Op began reporting a discharge from the mine on their discharge permit in April of 1991. During the 606 days from August 3, 1989 when they reported encountering water in the 1st North entry until April 1, 1991, 114.25 gpm or 164,520 gallons per day were produced, yet only 2,725 gallons per day were used on average. Where did the unaccounted 161,795 gallons per day or a total of 98,047,770 gallons (301 acre feet) produced during this time period disappear to? These questions are not answered by the mine permit as it fails to account for this water. Mine Dewatering § 7.1.4.3, page 7-32.

The answers to these questions were given in Mr. Gaven Atwood's testimony. In his testimony, Atwood disclosed that this water was pumped, without a permit, out of the west portals until October of 1989 which the flow of North Emery's Birch Spring. HT II. at 214-224. They also "breached" a seal that was installed in the old workings and pumped water into these workings. Id. at 221.[3] Pumping water into these old workings caused the icicle formation on the ledges above Big Bear Spring, and contaminated that spring.[4] See HT II. at 128, 169, 183, 221-228.

In addressing the surge in flow and contamination of the Big Bear Spring during the fall of 1989, Co-Op argued that "[t]he reason for this fluctuation is unknown." Revised Hydrogeologic Evaluation at 2-39. However, in an interoffice memo from Tom Munson, senior reclamation hydrologist, to Pamela Grubaugh-Litig, permit supervisor, dated May 17,

---

[3] This testimony raises issue with a statement made in the PHC that "SBC-3 was damaged in 1990 and surface water began leaking into the well. In March 1992, SBC-3 was repaired and sealed." PHC at 2-13.

[4] Co-Op admitted during this hearing this event took place. Yet in the prior Blind Canyon Seam and in the Tank Seam hearings, they denied this and went to great lengths to try and prove that the ice formation was a common occurrence.

1991, Mr. Munson states:

> It has been discovered that mine water was pumped into old workings in the south end of the mine via a pressure relief valve set up on the in-mine pumping system . . .. Based on the information the Division has received from Co-op in response to its November 27th, 1990 Division Order, and a verification that the pumping system and set-up conducted on May 16th, 1991 by Jesse Kelley, the Division has made the following observations:
>
> > Pumping water into the old workings via the old pumping and piping system most probably had an effect on the water balance in the old workings causing a discharge to occur at the outcrop, potentially affecting Big Bear Spring.
>
> ***
>
> Based on the discovery of the pumping of water into the old workings and the documented increase in the flow in Big Bear Spring, the termination of pumping water into the old workings will hopefully solve the current quantity and quality abnormalities at Big Bear Spring.

(Munson Memo, 5/17/91).

Charles Reynolds admitted that during this time, "[water] was discharged into the old workings . . . . It was put into the old workings, and at the time it appeared there may be a potential, in fact the Division requested that cease and that was discontinued." HT I. at 26. Further, even though the evidence shows that Co-Op had knowledge, the PHC states that "[t]o date, no negative impacts to seeps or springs has been demonstrated." PHC 2-36. This is in addition to the material misrepresentations concerning these facts made to Dianne Nielson in the previous proceeding to secure the last renewal.

During the recent hearing, Earthfax presented flow data from Danielson on Big Bear Spring and Birch Spring in 1978, showing that the flow was only 110 gpm. HT II. 207. They used this data to attempt to argue that low flows of this magnitude were common to this spring and that the low flows during the last few years were to be expected.

It should be noted that the water years of 1977 and 1978 had the lowest ever recorded annual precipitation in that area. The preceding years were probable declining precipitation years as well. The normal trend at Big Bear Spring and Birch Spring would be for discharge to decline as well, as evidenced by Danielson's measurements from Little Bear Spring which show nearly record low values during the same time period. This suggests that the springs were dewatering aquifer storage.

It is interesting to note, however, that between 1979 to 1985 annual precipitation increased to above average and the discharge at the Springs also increased and followed the peak discharge pattern in one year. This response was not observed at Big Bear Spring and Birch Spring following the declining precipitation trend between 1985 and 1990 and the Spring has not recovered in the later years. Because Big Bear and Birch Springs have not recovered their flows in the same pattern as in 1978 through 1985,[5] one suspects that <u>something</u> has changed the aquifer storage, especially since the control spring, Little Bear, has returned to normal. That something is the mining operations of Co-op.[6]

---

[5] This pre-mining baseline monitoring fact should have been in the original PHC, but is not.

[6] This is the same argument advanced by Richard White of Earthfax at the hearing when asked if he would agree with the statement made by Gregory Lines that "groundwater storage has been reduced around all water-producing mines in the area." HT III. 264. As to Bear Canyon Mine, Mr. White argued that:

> the storage is basically -- it's as though you have this bathtub. And so if you take something out of the bathtub, you've reduced the storage. So anytime water is discharged from the mine, something has been removed from storage.

HT III. 264.

B. The PHC Lacks Adequate Data To Establish The Baseline From Which Hydrological Consequences Are To Be Measured

The PHC is inherently deficient because it lacks sufficient baseline data, i.e., the quantity and quality of flow of surface and ground water, so that DOGM may assess the probable cumulative impacts and produce its CHIA. It is axiomatic that if the PHC is deficient, the CHIA would be deficient, and thus would result in an invalid permit.

Section 1257(b) (Submittal contents) of Title 30 of United States Code Annotated (§ 507(b) of SMCRA), provides:

> The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things -
>
> . . .
>
> (11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime,[7] quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, That this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, That the permit shall not be approved until such information is available and is incorporated into the application;

30 U.S.C.A. § 1257(b).

The history of SMCRA indicates that protection of the integrity of surface and ground-water resources from the potential adverse impacts of coal mining was one of SMCRA's major objectives. In passing SMCRA, Congress acknowledged several historical incidents in which

---

[7] Hydrologic regime means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

coal mining had deprived communities downstream from mining areas of the quantity and quality of water needed to sustain those communities. As Judge Flannery said in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990),

> [SMCRA] also reflects that harm to the environment can occur through accumulation of little things over a long time. At issue here is not just whether a dam will crack and burst after many years. The Act shows deep concern about changes to the quality of ground water and streams because of erosion or run-off that could take many years to come to full effect.

Id. at 20128. Therefore, in section 507(b)(11) of SMCRA, Congress required that the regulatory agency conduct "an assessment [of] the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability."

Under § 507(b)(11) of SMCRA, mining permit applicants are required to submit PHCs that focus and analyze the hydrologic effects of the mine and "adjacent areas." This has been interpreted by the Office of Surface Mining Reclamation and Enforcement, Department of the Interior, ("OSMRE"), and upheld by the courts[8] to require a "life-of-the-permit" analysis. On the other hand, a CHIA, which is the regulatory agency's duty, requires a more extensive "life-of-the-mine" analysis.

Under 30 C.F.R. § 784.14(e)(2) and R645-301-731.800 the PHC must provide "baseline hydrologic data," i.e., the quantity and quality of flow of surface and ground water. Furthermore, under § 507(b)(11) of SMCRA, the application must include sufficient data so

[8] National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990).

that DOGM may assess the probable cumulative impacts and produce its CHIA.[9] "This information [baseline data] must be gathered and evaluated by the applicant to a degree that will reasonably assure the protection of the onsite and offsite environment and water rights of others in areas where adverse impacts may occur." 47 Fed. Reg. 27,712, 27,715 (June 25, 1982). The Utah Administrative Code also requires the permit application to include a plan that is specific to the local hydrologic conditions, contain steps to minimize disturbance to the hydrologic balance inside the permit area, prevent material damage outside the permit area, and includes "measures to be taken to protect or replace water rights and restore approximate premining recharge capacity." R645-301-731.

Without providing an in-depth review of the entire PHC, it is clear the baseline data of the PHC is insufficient. For example, Table 2-5 on page 2-10 of the PHC indicates that SBC-4 (Big Bear Spring) and SBC-5 (Birch Spring) were "not measured" between 1984 and 1991.[10] EarthFax's Figure 2-2 also does not show the geologic strata below the Mancos No. 1 formation in well DH-4, nor does it show any water in the Storrs formation from that well. Also, the PHC is not entirely clear how many samples were used by EarthFax to arrive at the figures it uses in most of its tables. For example, Tables 2-6 and 2-9 indicate that 8 quantity

---

[9] The legislative history of SMCRA shows that the Senate added to § 507(b)(11) a requirement that the CHIA not be required until adequate hydrologic information was available on the general area and that the House responded with a proviso that the permit could not be approved until such information was available and incorporated into the permit. 53 Fed. Reg. 36,394, 36,396 (Sept. 19, 1988).

[10] Despite the Board's ruling in the Tank Seam proceeding that it was "convinced" that Co-Op's failure to measure flow rates at the inception of mining was "harmless," requisite baseline data needed to be more than reliance on Water User's records. Co-Op should have done studies to establish baseline data themselves.

and quality tests were made for Big Bear and Birch Springs in 1991. These tables indicate that a different number of samples were taken from the other monitoring sites and many of the tables do not indicate the number of samples taken in order to come up with the numbers.

The installation of the groundwater monitoring wells inside the mine, after they intercepted the large flows in 1989 does not constitute baseline data required under 30 C.F.R. § 784.14(e)(2), especially since that law was enacted before Co-Op started mining in the Bear Canyon Seam. The aquifers above and below that portion of the mine were likely dewatered before the groundwater monitoring wells were installed in the mine.

Further, the testimony of Gaven Atwood demonstrates some of the samples used may not represent actual water flow/quality conditions.[11] Atwood personally witnessed many instances where oil and grease got into the mine water, including a time when they blew a main and within two minutes it poured out 250 gallons of oil. HT II. 225. He also testified that mine workers would urinate and defecate inside the mine.[12] Despite these facts, the PHC neither included an analysis of the water quality impacts of fecal coliform, nor a plan to deal with spontaneous high volume discharges of hydrocarbons. PHC at 2-37. The end result was the contamination of Water User's springs by mine operations.

The point is that in order to gauge the probable and cumulative impacts of future mining in an area, an adequate baseline study must be and was required to be performed.

---

[11] Atwood testified that on the second day he worked at the mine, he was told to take a water sample for DOGM. Atwood collected the sample of "really good drinking water" from a drip in the roof, although the sample was supposed to come from the well that sits outside the discharge point. HT II. at 228.

[12] The fact that approximately sixty people per day work in the mine indicates much fecal coliform is produced.

Because insufficient data was collected and arrayed, Co-Op must be required to provide more information on the hydrology of the mine area:

> When existing wells are not sufficient in number or location to provide an accurate description of baseline conditions, §§ 780.21(b)(2) and 784.14(b)(2) would allow the regulatory authority to require drilling of new or additional monitoring wells and to require that necessary additional information be provided.

47 Fed. Reg. 27,712, 27,715 (June 25, 1982). Additional monitoring wells for more extensive monitoring would also provide the DOGM with an "early warning system," which may meet some of Water User's concerns. Also, groundwater monitoring is usually based on the baseline data. To the extent that baseline information is inadequate, ongoing monitoring should be more extensive to make up for the inadequate baseline information.

C. The CHIA Fails To Adequately Address The Cumulative Hydrologic Impact Of Mining On Water Availability To The Areas Within Which Impacts From The Mining May Occur

Because the PHC did not include the quantum of information about the hydrogeology of the area necessary for the DOGM to prepare the CHIA, a permit cannot be approved until adequate information is available and incorporated into the permit. See footnote 9. If this information is not available:

> then the regulatory authority must delay issuance of the permit until either the necessary information is available for an appropriate federal or state agency or is collected and incorporated into the permit application by the applicant.

53 Fed. Reg. 36,394, 36,398 (Sept. 19, 1988). Thus, if the information available regarding the hydrology of the mine area is insufficient for the CHIA, the applicant must provide that data. Because the Co-Op PHC did not contain this information, the CHIA analysis was inadequate and mining must cease.

1. The CHIA erroneously excludes an assessment of impacts of mining on the availability of water in the service areas of Water Users.

The CHIA is required to assess the impacts in the "cumulative impact area" ("CIA"). The CHIA gives an exhaustive, 2-page inventory of the indigenous plant species within the currently-defined Gentry Mountain CIA, yet ignores the human populations who rely on the water coming from that area. CHIA, I. Introduction.

Section 701.5 of 30 C.F.R. defines, "cumulative impact area" to mean the area "within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and ground-water systems." This, coupled with the § 507(b)(11) requirement that the CHIA assess "water availability" leads to the conclusion that the service areas of Water Users should be included in the CIA. However, the current "southern and eastern boundaries [of the Gentry Mountain CIA] are defined by T16S/T17S and R8E/R9E SLBM, respectively." CHIA, II. Cumulative Impact Area. This covers an area of approximately 112 square miles.[13] This CIA eliminates an assessment of the hydrologic impacts of mining and water availability on the downstream communities of Huntington and Cleveland. By excluding these areas, the CHIA fails to meet the purpose of § 507(b)(11) that the CHIA assess hydrologic impacts, "particularly upon water availability."

---

[13] The preamble to the rule proposing the definition of the CIA states, "the cumulative impact area would be defined to mean, with respect to assessment of the probable cumulative hydrologic impacts of mining, the surface and ground-water basin(s), . . . which may have a cumulative hydrologic impact with the proposed operation. . . . The precise areal extent of the cumulative impact area would be defined, on a permit-by-permit basis . . . ." 47 Fed. Reg. 27,712, 27,714 (June 25, 1982).

2. The CHIA inadequately addresses hydrologic impacts of mining on the availability of water to the service areas of Water Users.

Because the CIA excludes the service area of Water Users, the CHIA is rendered inadequate. Under 30 C.F.R. § 784.14(f), the CHIA is required to be sufficient to determine the probable cumulative impact to the hydrologic balance outside the permit area, i.e., the service areas. As a review of the CHIA indicates, no analysis of water availability has been done for these areas.

It may not be argued that water availability of downstream users is not affected by mining in the Gentry Mountain area. The five mines listed in the CHIA--Bear Canyon, Deer Creek Mine Waste Rock Storage Facility, Hiawatha Mines Complex, Star Point Mines, and Trail Canyon Mines--all "consume" groundwater that would eventually make its way, one way or another, to those downstream communities. The CHIA's assessments of impacts of mining on water availability is very sparse. In this regard, the Gentry Mountain CHIA merely concludes, "approximately 630 gpm are consumptively lost to mine ventilation (80 gpm) and evaporation at coal preparation facilities (545 gpm)" and "An upper limit of 20 years has been estimated for complete flooding of workings and re-establishment of the premining ground water system." CHIA, VI. Summary. The CIA and CHIA must be completed per the requirements of law before mining may continue.[14]

3. An inadequate CHIA raises the question of whether the permit has been legally issued or renewed.

The inadequacies of the CHIA make a comparison of PHCs on proposed mining

[14] As all of Huntington Creek is still appropriated water, this water must be replaced pursuant to § 40-10-18(15)(c).

operations with the CHIA inadequate as well. In defending the PHC and CHIA requirements to the district court, the Secretary of the Interior argued in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990), that:

> [A]t its option, the operator may submit additional data to assist the regulatory authority in drawing up the CHIA. Implicit in this suggestion is the view that the operator almost has to submit such data, because if the regulatory authority cannot put together a CHIA, it may not issue a permit. See SMCRA s 507(b)(11), 30 U.S.C.A. s 1257(b)(11) (CHIA not required until hydrologic information made available by federal or state agency, but permit shall not be approved until information available and incorporated into the application) (See NWF v. Hodel, 839 F.2d at 758, construing statute in this manner.)

Under this analysis, the original permit and the current permit renewal should not have been granted until there was sufficient information on water availability and hydrology to prepare and incorporate into the CHIA. As is discussed above, DOGM must review the PHC with a revision of the CHIA and the areal extent of the CIA in mind.

4. The CHIA's findings are inadequate.

Finally, the CHIA's findings are inadequate. Under 30 C.F.R. § 784.14(f), and R645-301-729.100 "[t]he CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation[s] [have] been designed to prevent material damage to the hydrologic balance outside the permit area." In this regard, the CHIA simply concludes: "[t]he designs proposed for all anticipated mining operations within the CIA are herein determined to be consistent with preventing damage to the hydrologic balance outside the proposed mine plain areas." CHIA, VI. Summary. This is merely an inadequate, misstatement of the applicable standard for a CHIA. Thus, DOGM must re-visit its Gentry Mountain CHIA and CIA for the purposes of bringing it into compliance with § 507(b)(11) of SMCRA. As part of that process, the CIA must be enlarged beyond its current border of T16S/T17S and

R8E/R9E SLBM to include the areas served by Water Users.

POINT IV.

The arguments below address the issues requested by the Division in its March 25, 1997 letter.

A. UNDER R645-301-750 CO-OP IS REQUIRED TO EITHER AMEND ITS PLAN OF OPERATIONS OR MAKE REPARATIONS FOR DAMAGES CAUSED IF IT CAN BE DEMONSTRATED THAT THE MINING HAS ANY HYDROLOGIC EFFECT

The performance standards of R645-301-750 provide:

> All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area . . .

R645-301-750 does not address the quantity of effect that must be demonstrated to require an operator to amend its plan or make reparations. The omission of language concerning amount or level of disturbance is evidence that the amount of hydrologic effect is not an issue. Further, there are many other provisions in the rules that imply the intent was to mandate this requirement where any hydrologic effect can be shown. Of course, in this case any water diverted in a manner that reduces Water Users vested water rights is a material impairment and damage. The fact is that hundreds of acre feet are missing.

For example, R645-301-731 states that the "plan will specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645-301-728 and will include preventative and remedial measures." Further, R645-300-148 states that the permittee will provide "[a]ny new information needed to correct or update the

information previously submitted to the Division by the permittee under R645-301-112.300."[15] R645-300-148.100. This implies that if any new hydrologic effect is demonstrated it must be addressed by the PHC, even if there is only a potential effect. Of course here we have actual effects.

The Water Users have demonstrated at this hearing and Co-Op admitted, that there was a surge in quantity and decrease in quality of the spring water during the time that Co-Op pumped water into the old workings. That means the mine workings are interconnected with the Springs and are intercepting Spring recharge water. It is undisputed that Water Users springs have not recovered their historic flows and the testimony and exhibits introduced support that conclusion. Thus, the injury is actual, material and continuing, and the Division must minimize this disturbance and prevent any further damage.

B. THE DIVISION MAY ORDER WATER REPLACEMENT AS A REMEDY THAT IS CURRENTLY AVAILABLE AND CO-OP IS REQUIRED TO REPLACE WATER IT CONTAMINATED, DIMINISHED, AND/OR INTERRUPTED

1. The Division May Order Water Replacement As A Remedy That Is Currently Available

Even though the Board has not yet promulgated underground water replacement rules under the recently enacted amendments to the Utah Coal Regulatory Program, as an administrative matter, an order of water replacement is a remedy currently available to the Division. The Surface Mining Control and Reclamation Act of 1977 gives primary responsibility for developing, authorizing, issuing, and enforcing regulations rested with the

[15] This provision applies to instances where cessation has been ordered and is presented here only to illustrate intent.

states. 30 U.S.C. § 1201(f). State laws and regulations must be consistent with, and at least as stringent as, federal law or else the state risks federal intervention, withdrawal of program approval, and loss of primacy. 30 U.S.C. §§ 1211, 1253, and 1255. Congress revised SMCRA (Public Law 95-87) in section 2504 of the Energy Policy Act of 1992 by adding section 720 (1309a). Pub.L. 102-486, 106 Stat. 2776 (1992). Section 1309a of SMCRA requires underground mining operations to:

> promptly replace any drinking, domestic, or residential water supply of a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

30 U.S.C. § 1309a(a)(2). The Office of Surface Mining Reclamation and Enforcement promulgated a final rule implementing section 1309a and adding "Probable-Hydrologic-Consequence" and water replacement requirements to 30 C.F.R. §§ 701.5, 784.14, and 817.41. 60 Fed. Reg. 16722 (March 31, 1995).

Since 1979, Utah has required that:

> The operator of a surface coal mine shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use form an underground or surface source where this supply has been affected by contamination, diminution, or interruption proximately resulting from the surface coal mine operation.

Utah Code Ann. § 40-10-29(2) (1979). The 1997 amendments expand this requirement to underground mining to coincide with and abide by federal law. Further, Rule R645-301-731.800 of the Utah Administrative Code mirrors the language of the Utah Code. Even Mr. Hansen, counsel for Co-Op, acknowledged before Chairman Lauriski that the requirement to replace water is:

> nothing new, it's written into the current regulations. R645-301-731 requires Co-Op's plan to include measures to be taken to protect or replace water rights and . . . [a]lso require Co-Op mine to replace any water that's contaminated or lost.

Transcript of Hearing on Tank Seam, 10/25/94 at 26.

Co-Op cannot now argue that replacement is not required. For replacement to be a viable option, however, a source must be identified and be available before interruption occurs. That is not the case now and is an issue that must be resolved before the permit may be renewed.

2. CO-OP Is Required To Replace The Water That It Contaminated, Diminished, And Interrupted

Co-Op is required to replace any water that has been contaminated, diminished or interrupted -- regardless of the quantity affected. Utah Code Annotated Section 40-10-18(15) provides:

> (c) Subject to the provisions of Section 40-10-29, the permittee shall promptly replace any state-appropriated water in existence prior to the application for a surface coal mining reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

Utah Code Ann. § 40-10-18(15) (1997).

The rule of *de minimus non curat lex* has no application to this determination. That rule is reserved for circumstances where the harm caused, the potential that the harm will occur, or the injury suffered by the occurrence would be so minor that the law need not be concerned. Utah courts recognize, and strongly protect the rights of water owners. This is illustrated by the Utah Supreme Court's disapproval of the statement made in a State Engineer's decision that there could be a "de minimus" decrease of the water reaching the lower users "with which the

courts will not be concerned." Piute Reservoir & Irrigation Co. v. West Panguitch Irr. & Reservoir Co., 367 P.2d 855 (Utah 1962) (holding that a change should not be allowed to operate without affirmative proof that the rights of the lower water users were not thereby impaired). Furthermore, Utah has adopted a strict liability standard for interference with water. Morgan v. Quailbrook Condominium Company, 704 P.2d 573 (Utah 1985) (instruction on interference with water properly phrased in terms of strict liability citing water scarcity rationale of Branch v. Western Petroleum, Inc., 657 P.2d 267 (Utah 1982)).

In this case, the Water Users are the owners and purveyors of the water rights in Birch Spring and Big Bear Spring. These springs are major drinking water sources for Northern Emery County. Evidence adduced at the hearings revealed that Co-Op's mining operations have affected these springs through loss of hundreds of acre feet. The actions of Co-Op have destroyed the historic return flow patterns and consume groundwater which would have eventually made its way to Water User's springs. Without replacement water, the Water Users' ability to provide a safe and consistent water supply to their constituents is severely threatened. Thus, rule of de minimus non curat lex does not apply, and Co-Op should be strictly liable for any contamination, diminution or interruption of the Water Users' springs under the mandates of R645-301-727. They should be ordered to replace the water they have intercepted.

Where the "de minimus" rule does not apply, the amount of impact is irrelevant. However, even if the Division finds that the rule could apply to cases involving such an important resource, it would not apply in this case. The impact on the Springs occurring simultaneously with Co-Op's discharge of excess mine water into the old workings (the

"event") was extensive and continuing, and its significance is great. The current flows from the springs are a reduction of hundreds of acre feet from the historical flows. Furthermore, Water Users submit that another significance of the "event" was that it established that there is in fact a relationship between the activities occurring in the mine and the quantity and quality of water at their springs. Certainly the continuing potential for an impact of unknown magnitude cannot be considered de minimus.

CONCLUSION

The informal conference has uncovered the flawed and inaccurate nature of the PHC, CHIA and CIA, which is the hydrologic information upon which the Permit is based. It has also demonstrated the material misrepresentations upon which the previous permit renewal was based. Co-op must not be allowed to profit from such behavior. Finally, the need for immediate replacement of water and the need for identification of future replacement sources has been amply demonstrated.

Dated this 8th day of May, 1997.

APPEL & WARLAUMONT

Jeffrey W. Appel
Benjamin T. Wilson
W. Herbert McHarg
Attorneys for Castle Valley
Special Services District

NIELSEN & SENIOR, P.C.

J. Craig Smith
David B. Hartvigsen
Attorneys for North Emery Water Users Association and Huntington-Cleveland Irrigation Company

CERTIFICATE OF SERVICE

I hereby certify that on this 8 day of May, 1997, I have caused to be sent, through the United States mail, first-class, postage prepaid, a true and correct copy of the foregoing OBJECTORS' JOINT POST-INFORMAL MEMORANDUM addressed as follows:

F. Mark Hansen, Esq.
624 North 300 West, Suite 200
Salt Lake City, UT 84103