John R. Hammond, Jr., ISB No. 5470
BATT & FISHER, LLP
U.S. Bank Plaza, 5th Floor
101 S. Capitol Boulevard
Post Office Box 1308
Boise, ID 83701
Telephone: (208) 331-1000
Facsimile: (208) 331-2400

Attorneys for Applicant

RECEI

2007 APR 24 PM 4: 50

IDAHO PUBLIC
UTILITIES COMMISSIO

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF SPIRIT LAKE EAST WATER COMPANY, INC., FOR AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR WATER SERVICE IN THE STATE OF IDAHO	**Case No. SPL-W-06-1** **PETITION FOR RECONSIDERATION OF ORDER NO. 30279**

COMES NOW Spirit Lake East Water Company ("Spirit Lake," "Applicant" or "Company") and pursuant to Idaho Public Utilities Commission's Rules of Procedure 331 and *Idaho Code* § 61-626 respectfully Petitions for Reconsideration on that part of the Commission's Final Order 30279 finding that the Company's evidence concerning the cost of its current generator was insufficient to allow it to be included in Spirit Lake's rate base. As will be discussed in more detail below the Company asserts that the Commission decision on this matter is unreasonable, unlawful, erroneous, unduly discriminatory and not in conformance with the facts of record and/or applicable law, resulting in a revenue requirement and rates which are confiscatory.

ORIGINAL

I.

BACKGROUND

Early in 2005, due to water system outages that occurred in 2004, the Idaho Department of Environmental Quality ("DEQ") required that Spirit Lake make improvements to its system to ensure system reliability. One item that the Company agreed to install at DEQ's and the Company's engineers suggestion was a generator that was capable of operating both the Company's well pump and three centrifugal water pumps to ensure system reliability in the event of a power outage. *See* Exhibit A.[1] Later DEQ found the engineering plans for the installation of the generator to be acceptable and approved them for construction purposes. *See* Exhibit B. On September 26, 2005, Spirit Lake advised the DEQ that it was in possession of a generator capable of satisfying the need to ensure system reliability. *See* Exhibit C. Spirit Lake obtained this generator from one of its shareholders, Hanson Industries, Inc., who had previously obtained the generator from Kaiser Aluminum, as discussed in more detail below. Although this 55 – Hp capacity generator was smaller than the one originally proposed to be installed, DEQ approved its installation stating:

> Mr. Hanson reported that they had purchased a diesel-powered, 55-Hp capacity, standby generator capable of running the three booster pumps all at once but not capable of operating the 100 Hp well pump. He presented a 2004-5 two year history from Koot. Electric Coop. for power outage history for the area showing only half a dozen outages occurred with none longer than two hours in duration. The 190,000 gallon water tank should have enough capacity to supply the booster pumps during a several hour power outage. (The peak instantaneous demand by 232 homes might be about 250 gpm which would consume 30,000 gallons of storage during two hours with a full tank lasting about 12 hours. With a maximum 366 connections, peak demand might be about 350 gpm which would use about 40,000 gallons of storage and empty a totally full tank in about 9

[1] This correspondence was disclosed to Staff in response to Audit and Production Requests.

hours.) We agreed that standby power capable of running the booster pumps was practical and acceptable.

On April 28, 2006 DEQ found that the installation of a standby generator was completed. Exhibit D.

As stated previously, Spirit Lake obtained this generator from one of its shareholders, Hanson Industries. Hanson Industries ("Hanson") obtained this generator in November of 2003 when it purchased approximately 157 acres of real property, along with fixtures and improvements and certain personal property. *See* Exhibit E. *See also* Reply Comments Exhibit 16. At the time, Kaiser Aluminum was in Chapter 11 bankruptcy and the sale had to be approved by the United States Bankruptcy Court for the District of Delaware. *See* Exhibit F. No specific cost value for the generator was set forth in the purchase and sale agreement or for any fixture, improvement or item of personal property.

The value assigned to this generator when it was transferred from Hanson to Spirit Lake was set at $12,360.00. The Company and Hanson in good faith attempted to demonstrate the reasonableness of this value by submitting estimates for the cost Spirit Lake would incur if it were to obtain a generator of similar capacity from another source. *See* Reply Comments Exhibit 16. The average of these estimates is $10,800.00. In discussions with Commission Staff, it indicated that it would not object to the inclusion of a value of $6,000.00 in rate base for the generator.

II.

ARGUMENT

1. Legal Standard

The Commission is statutorily vested with jurisdiction to regulate rates charged by public utilities furnishing services, products or commodities in the State of Idaho. *Idaho Code* § 61-501. When the Commission finds that the rates proposed by a public utility for such services are unjust, the Commission must establish just, reasonable or sufficient rates. *Idaho Code* § 61-502. The Idaho Supreme Court's review of Commission rate-setting decisions is to determine if the Commission regularly pursued its authority and whether the constitutional rights of the utility were violated by the fixing of rates which were unjust, unreasonable and thus confiscatory. *Utah-Idaho Sugar v. Intermountain Gas Co.,* 100 Idaho 368, 597 P.2d 1058 (1979); *Intermountain Gas Co. v. Idaho Public Utilities Comm'n,* 97 Idaho 113, 540 P.2d 775 (1975); *Federal Power Comm'n v. Hope Natural Gas Co.,* 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1944).

2. The Commission's Decision to not Allow the Cost of the Generator in Spirit Lake's Rate Base is unreasonable, unlawful, erroneous, unduly discriminatory and not in conformance with the facts of record and/or applicable law, resulting in a revenue requirement and rates which are confiscatory.

There is no dispute that Spirit Lake installed this generator as required by DEQ and that it is used by the Company in the operation of the water system. The Idaho Supreme Court has unequivocally stated that the Commission should include in rate base all items which are proven with reasonable certainty to be justifiably used by the utility in providing services to its customers. *See Citizens Utility Co. v. Idaho Public Utilities*

Comm'n, 99 Idaho 164, 579 P.2d 110 (1978); *Agricultural Products v. Utah Power & Light Co.,* 98 Idaho 23, 557 P.2d 617 (1976). As this equipment was installed for the benefit of the customers of Spirit Lake it clearly should be allowed to be included in rate base.

In assigning a value to the generator, Spirit Lake obtained the best information it possibly could gather by soliciting estimates for the cost of a similar generator from companies unaffiliated with Spirit Lake or Hanson. *See* Reply Comments Exhibit 16. Although the average of these estimates is slightly lower than $12,630.00, they still provide reliable and relevant evidence as to the cost to obtain a generator of this sort. No evidence has been introduced into the record to contradict the validity or accuracy of these estimates.

The reason Spirit Lake has attempted to justify this value for the generator through estimates is that when the generator was obtained in 2003 by Hanson in a real estate purchase and sale agreement from Kaiser Aluminum, no specific value was assessed to it. Generally speaking, it is not unusual for real estate purchase and sale agreements to not specifically assign values to fixtures, improvements and personal property, such as a generator, that are included in such a transaction. Further, as this sale was necessitated by Kaiser Aluminum's need to liquidate assets quickly to pay creditors in its bankruptcy, it is not surprising that a cost value for a minor piece of equipment in terms of the overall sale was not set forth. Two years later, when Spirit Lake was required by DEQ to install a standby generator to power its booster pumps in the event of a power outage, the Company was able to obtain such a generator more quickly from its shareholder Hanson than from the private sector. The fact that this generator did not have

a value assigned to it from the purchase and sale agreement does not justify punishing Spirit Lake by ruling that no value at all should be included in its rate base. When Spirit Lake obtained this generator from its shareholder it did so for the benefit of its customers. Further, Spirit Lake made a reasonable business decision based on the information it had at the time to obtain this generator from Hanson. Further, its attempt to assign a value to the generator based on the estimated cost to obtain a similar generator from a third party is reasonable under the circumstances and thus, has provided clear evidence of the cost of the generator so that it should be included in its rate base. *See General Telephone Co. of the Northwest, Inc. v. Idaho Public Utilities Commission*, 109 Idaho 942, 712 P.2d 643 (1986).

The Company also asserts that it is unreasonable under the circumstances for the Commission to disallow inclusion of the cost of the generator in rate base and that such decision amounts to a regulatory taking violating the Fifth and Fourteenth Amendment of the United States Constitution. *Duquesne Light Co. v. Barasch,* 488 U.S. 299, 109 S.Ct. 609, 102 L.Ed.2d 646 (1989). In *Duquesne,* the Supreme Court restated the constitutional parameters of rate setting for public utilities under the taking clause of the Fifth Amendment:

> The guiding principle has been that the Constitution protects utilities from being limited to a charge for their property serving the public which is so "unjust" as to be confiscatory. If the rate does not afford sufficient compensation, the State has taken the use of utility property without paying just compensation and so violated the Fifth and Fourteenth Amendments.

Duquesne, 488 U.S. at 307-08, 109 S.Ct. at 615-16, 102 L.Ed.2d at 657.

In this case, Spirit Lake obtained and installed this generator for the benefit of its customers. Although it obtained this generator from Hanson, there is no evidence in the record showing that the cost assigned to this generator for rate base purposes was not established by the evidence provided by Spirit Lake. Nor is there any evidence contradicting that which was provided by the Company. Finally, Staff in its discussions with the Company indicated that it would not object to the inclusion of $6,000 in rate base for the generator based on the estimates contained in Exhibit 16 attached to the Company's Reply Comments. Based on these facts, there is no reasonable reason for the Commission to disallow inclusion of any cost for this generator in rate base and any decision to do so amounts in confiscatory rates.

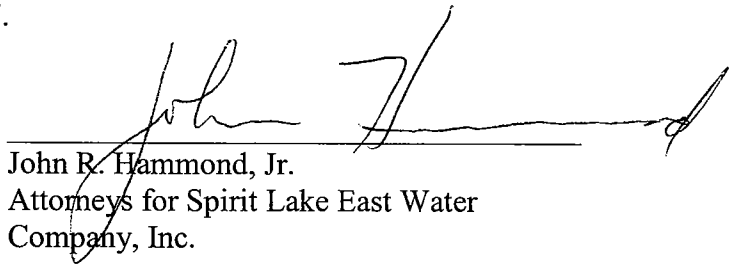
In the alternative, Spirit Lake asserts that the Commission could direct Staff to obtain several cost estimates for a generator of similar size and compare them to that obtained by the Company and then determine what value should be included in rate base.

CONCLUSION

Based on the foregoing, Spirit Lake respectfully requests that the Commission reconsider its decision to disallow inclusion of any cost for the generator in the Company's rate base. In addition, the Company respectfully requests that the Commission allow the Company to include the amount of $12,360.00 in rate base for the generator or some other figure based either on Staff's position of $6,000.00 or the average of the cost estimates contained in the Exhibit 16 attached to the Company's Reply Comments.

If the Commission affirms its order in this regard, it amounts to a regulatory taking. No reasonable person would assume that this generator has zero value and should not be included in the Company's rate base.

DATED This 24th day of April, 2007.

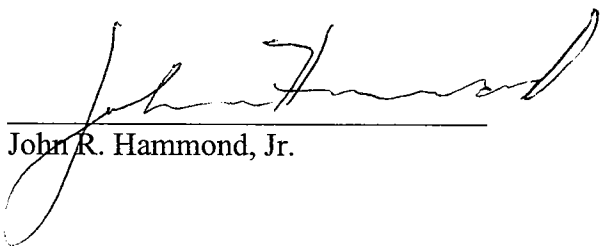


John R. Hammond, Jr.
Attorneys for Spirit Lake East Water Company, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY That I have, this 24th day of April, 2007, caused to mailed a true and correct copy of the foregoing document to the following by U. S. Mail, Postage Prepaid thereon, in the following indicated manner:

Weldon B. Stutzman Deputy Attorney General Idaho Public Utilities Commission 472 West Washington Street P. O. Box 83720 Boise, Idaho 83720-0074	___ U. S. Mail ✓ Hand Delivery ___ Facsimile



John R. Hammond, Jr.

EXHIBIT A

WELCH COMER
& ASSOCIATES, INC.
ENGINEERS & SURVEYORS

IDAHO
1626 Lincoln Way
Coeur d'Alene, ID 83814
208-664-9382
Fax 208-664-5946

WASHINGTON
2310 N. Molter Road
Suite 101
Liberty Lake, WA 99019
509-255-6000
Fax 509-255-6009

Toll free
1-877-815-5672

E-mail
wc@welchcomer.com

January 6, 2005

Robert Boyle
Hanson Industries
15807 E Indiana Ave
Spokane, WA 99216

Re: Spirit Lake East Water System

Dear Bob:

At your direction, we have reviewed the Spirit Lake East (SLE) water system deficiencies with respect to the recent Idaho Department of Environmental Quality (IDEQ) requirements regarding minimum system pressure, and developed options to meet those requirements.

Background:
Due to a well pump failure, the water SLE system experienced low pressures between October 4 and October 10, 2004. As a result, IDEQ notified the Spirit Lake East Water Company that the water system was in violation of IDAPA 58.01.08.552.01.b.i by not maintaining a minimum pressure of 20 psi. A second IDEQ letter, dated October 28, 2004, directed the water system to construct a second well within 180 days of the date of the letter. In reviewing the following options, please refer to the Welch Comer *Spirit Lake East Water System Analysis* dated October 2004 for a more detailed description of the water system.

Development of Alternatives:
In order to develop options for satisfying IDEQ's October 28th notice, Welch Comer first identified the primary failure mechanisms that would result in a loss of system pressure to the system.

1. Booster Pumps: A failure of the booster pumps would quickly result in depressurization of the system, as there is no elevated storage. The small volume available in the bladder tanks would be quickly drained. There are three booster pumps in service, so it is unlikely that all three would fail simultaneously. Also, these are relatively small pumps that could be obtained locally.

2. Power: Power system outages are common in the area due to the overhead conductors. A loss of power takes both the well and booster pump station out of service. Historically, this is the most common failure mechanism.

E-mail:scordes@welchcomer.com

3. Well Pump/motor: Failure of the well pump or motor can result in a water system outage, but not immediately. As long as there is water in the reservoir, the booster pump system can keep the system pressurized.

4. Well: A catastrophic well failure due to a structural failure or contamination would result in a long-term outage. However, this type of failure is extremely uncommon.

The following options were developed to address the failure mechanisms listed above and satisfy the IDEQ pressure requirements.

Option A: Drill a second well

Drilling a second well would address failure mechanisms 3 (well pump/motor failure) and 4 (well failure), but would not guarantee that the system would maintain pressure at all times. In the event of a power outage or booster pump failure; the system would still be out of water. The estimated cost to design and construct a new well and pumping system and tie it into the existing system is $200,000. This assumes that a second well can be sited on the existing well lot. Drawdown testing should be performed to assess the risk of well interference if this option is pursued.

Option B: Standby Power for Booster Pumps

Providing standby power for the booster station would protect the system from the most common failure mechanism (2), power outages. In order to maximize the usefulness of this option, the storage reservoir would also need to be repaired to allow the maximum volume of standby water storage. With the reservoir repaired, the system would have 192,000 gallons of storage available during an outage. The drawback to this alternative is that in the event of a well failure or extended power outage, it would be necessary to haul water to the reservoir. The estimated budget to repair the reservoir is less than $10,000 assuming that the repairs can be made using Xpex or other similar treatment method. If a liner must be installed, the estimated cost is $32,000

In order to start and run the one 25 horsepower and two 10 horsepower pumps, an 80 KW standby generator would be required. The material cost of a unit of this size and an automatic transfer switch is approximately $36,000. An additional $5,000 should also be budgeted for installation and miscellaneous electrical modifications.

Under this option, it would also be important to have an early warning system that would alert the operators of a problem before the reservoir drained out. A simple float and autodialer system could accomplish this for an estimated cost of $2,000 to $2,500. Part of the problem with the current system is that the operators are not always aware of a problem before they receive complaints of low pressure.

Option C: Standby Power for both Booster and Well pumps: Another alternative would be to install a standby generator large enough to be able to run both the well and booster pumps. This would protect the system from outages under most conditions. A mechanical failure of the well pump would still make it necessary to haul water to the reservoir. As with Option B, the reservoir would need to be repaired.

A 250 KW standby generator would be required for this option at an approximate cost of $56,000, including the transfer switch plus $5,000 for installation. Additionally, having a spare well pump and motor in inventory would provide protection under nearly all circumstances. A spare 100 HP pump and motor would cost approximately $15,000.

Option D: Elevated Storage: Construction of elevated storage would provide the most reliable system of maintaining pressure. However, the duration of the protection would be limited by the size of the reservoir. This type of reservoir is also very expensive to construct. For example, the 68,000 gallon elevated storage reservoir recommended in the Spirit Lake East Water System Evaluation had an estimated total project cost of $424,000. This estimate assumes the storage will be sited on the well lot or on property owned by the Spirit Lake East Homeowners Association and does not include any land acquisition costs. Depending on the site selected, the elevated storage would also help equalize pressures during normal operations.

Analysis of Alternatives:

Based on the above, it appears that the highest degree of protection against water outages would be provided through the installation of standby power. Having a spare well pump and motor in inventory would make the system very secure.

It is also recommended that an autodialer be installed to alert operators if the reservoir levels get too low. Also, the reservoir itself should be repaired so that all of the available standby storage can be utilized.

The total estimated budget to do all of the above would be as follows:

250 KV genset/transfer switch	$61,000
Reservoir Repairs	$10,000
Spare Pump/Motor	$15,000
Autodialer System	$ 2,200
Total	$88,200

Drilling a second well would provide less system reliability than the above improvements at more than twice the cost. Elevated storage would provide a higher level of reliability but only for short duration events. There would also be a secondary benefit of pressure equalization under peak operating conditions. However, elevated storage would be the most expensive option.

We would be pleased to review these options with you in more detail and help work with you and IDEQ to reach a solution that meets everyone's needs. If you have any questions please feel free to give me a call.

Sincerely,
Welch Comer & Associates, Inc.

Steven B. Cordes, P.E.
Project Manager

SBC/gym

LAW OFFICE
BATT & FISHER
A LIMITED LIABILITY PARTNERSHIP

FILE COPY

John R. Hammond Jr.

e-mail: jrh@battfisher.com

February 10, 2005

Anthony P. Davis
Analyst
DEPARTMENT OF
ENVIRONMENTAL QUALITY
2110 Ironwood Parkway
Coeur d'Alene, ID 83814-2648

Re: *Spirit Lake East Water Company Water System*
PWS# 12801

CONFIDENTIAL SETTLEMENT COMMUNICATION PURSUANT TO IRE 408

Dear Mr. Davis:

Thank you for your letter of January 7th to my client regarding the March response date. This correspondence is to advise you of Spirit Lake East Water Company's ("SLE" or the "Company") progress in making improvements to its water system for the benefit of its customers and to comply with the Department of Environmental Quality's ("DEQ") recent demands. As you know, the engineering firm of Welch Comer & Associates, Inc. was retained to analyze and advise SLE on the water system and future improvements. A copy of this assessment is enclosed with this correspondence.

Welch Comer's January 6, 2005 assessment analyzed SLE's system in the context of developing options for satisfying DEQ's requirements as contained in its October 28, 2004 correspondence to the Company. This assessment identified the primary failure mechanisms that would result in a loss of system pressure to the system and four options to remedy such a problem. Welch Comer identified power system outages as the most common system failure, with failure of booster pumps, well pump/motor failure and well failure as other causes. Based on its analysis and reference to a draft of its *Spirit Lake East Water System Analysis*, dated October 2004 and prepared for the potential sale of the system to North Kootenai Water District,[1] Welch Comer recommended that the highest degree of protection against water outages and depressurization would be provided through the installation of standby power to run both the well and booster pumps in the event of an outage.[2] In addition, Welch Comer recommended that SLE make the following additional improvements: 1) purchase a spare well pump motor for placement in inventory in the event of another motor failure; 2) install an autodialer system to

[1] This sale was not consummated and the reasons for this failure are still being investigated by SLE.
[2] Welch Comer also stated that its recommended improvements would provide more reliability and cost far less than drilling a second well.

alert operators if reservoir levels get too low; and, 3) repair of the reservoir tank wall to increase its capacity to the full 192,000 gallons. The total estimated budget for these improvements totals $88,200.00. After carefully considering this recommended course of action, SLE now believes that it is the most reasonable and prudent path to follow to improve its system and address the spirit of DEQ's concerns.

The following background is provided to aid in understanding why SLE believes its proposed course of action is reasonable and prudent. The SLE system began operations in 1979 and has been regulated by the Idaho Public Utilities Commission since 1983.[3] Since 1983 the Company's rates for its customers have remained extremely low. Currently, the Company's customers pay a $12.00 minimum, monthly charge, and .10¢ for each 100 additional gallons after usage of 9,000 gallons. *See* Spirit Lake East Tariff Schedule. In its twenty-five years plus of existence SLE has operated its system in a reliable, safe and economical manner for the benefit of its customers. SLE believes its record is strong as is demonstrated by contaminant testing results over this period of time and the infrequent outages the system has suffered.[4] Although the recent outage that occurred was a significant event, SLE made every effort to quickly respond to the needs of its customers. The Company did this by filling its reservoir repeatedly using tanker trucks to transport water SLE had purchased from the City of Spirit Lake. More generally, SLE believes that through the years it has made every effort to comply with the applicable laws and rules that govern the operation of its system. Because of the Company's good operation and management record, it requests that DEQ work with SLE to effectuate the improvements that Welch Comer has recommended.

Although SLE agreed to study and analyze DEQ's demand for the installation of a second well, SLE now believes that if it follows Welch Comer's recommendations it will increase its storage capacity and improve the reliability of its system in a more timely and cost effective manner and therefore, address DEQ's concerns.[5] In addition, SLE will commit to the: 1) institution of a cross connection control program; 2) the promotion of proper septic tank maintenance; and, 3) development of a written well protection program. Based on the foregoing, SLE intends to make these system improvements as recommended by Welch Comer and others as voluntarily committed to by the Company. SLE will submit the appropriate plans to DEQ in this regard. It is SLE's sincere hope that DEQ will support and assist in the improvement of the

---

[3] *See* IPUC Order No. 17114, Case No. U-1500-127.

[4] For example, in 2001 DEQ specifically stated that:

> Historically, [SPLE] has had few water quality problems other than microbial contamination entering through the distribution system. The system installed a chlorinator in 1996 to deal with the problem.

Assessment at p. 2; *see also* at p. 8 (documenting other contaminant testing results). In addition, this Assessment noted that a Sanitary Survey performed conducted on July 12, 2000 found "the Spirit Lake East Water Company system to be well run and in compliance with *Idaho Rules for Public Drinking Water Systems*." *Assessment* at 6; *see also* at p. 10. It should also be noted that neither of these analyses of the SLE water system contended that it was in violation of DEQ's Rules because it had only one well.

[5] SLE believes and agrees with DEQ that the installation of a second well is an eventual and necessary system improvement as the system moves towards full hook up (the system now has approximately 60% of total allowed hook ups). The future, second well will follow DEQ and other governmental agencies rules and regulations prior to actual construction.

SLE system in this manner. SLE believes this course of action represents a reasonable and prudent solution to its current system deficiencies, which at this time arguably do not pose an immediate threat to the health and safety of its users. Further, SLE believes this course of action will help to eliminate the possibility of administrative proceedings or other litigation which would only add further expense and could delay the completion of system improvements that will benefit SLE's customers.

If you have any questions regarding SLE's course of action please contact me at your convenience.

Sincerely,

BATT & FISHER, LLP

John R. Hammond Jr.

JRH/klh
Enclosure
cc: Robert Boyle
Ron J. Sutcliffe
Gary Gaffney

WELCH COMER
& ASSOCIATES, INC.
ENGINEERS & SURVEYORS

IDAHO
1626 Lincoln Way
Coeur d'Alene, ID 83814
208-664-9382
Fax 208-664-9946

WASHINGTON
2310 N. Molter Road
Suite 101
Liberty Lake, WA 99019
509-255-6000
Fax 509-255-6009

Toll free
1-877-815-5672

E-mail
wc@welchcomer.com

January 6, 2005

Robert Boyle
Hanson Industries
15807 E Indiana Ave
Spokane, WA 99216

Re: Spirit Lake East Water System

Dear Bob:

At your direction, we have reviewed the Spirit Lake East (SLE) water system deficiencies with respect to the recent Idaho Department of Environmental Quality (IDEQ) requirements regarding minimum system pressure, and developed options to meet those requirements.

Background:
Due to a well pump failure, the water SLE system experienced low pressures between October 4 and October 10, 2004. As a result, IDEQ notified the Spirit Lake East Water Company that the water system was in violation of IDAPA 58.01.08.552.01.b.i by not maintaining a minimum pressure of 20 psi. A second IDEQ letter, dated October 28, 2004, directed the water system to construct a second well within 180 days of the date of the letter. In reviewing the following options, please refer to the Welch Comer *Spirit Lake East Water System Analysis* dated October 2004 for a more detailed description of the water system.

Development of Alternatives:
In order to develop options for satisfying IDEQ's October 28th notice, Welch Comer first identified the primary failure mechanisms that would result in a loss of system pressure to the system.

1. Booster Pumps: A failure of the booster pumps would quickly result in depressurization of the system, as there is no elevated storage. The small volume available in the bladder tanks would be quickly drained. There are three booster pumps in service, so it is unlikely that all three would fail simultaneously. Also, these are relatively small pumps that could be obtained locally.

2. Power: Power system outages are common in the area due to the overhead conductors. A loss of power takes both the well and booster pump station out of service. Historically, this is the most common failure mechanism.

3. Well Pump/motor: Failure of the well pump or motor can result in a water system outage, but not immediately. As long as there is water in the reservoir, the booster pump system can keep the system pressurized.

4. Well: A catastrophic well failure due to a structural failure or contamination would result in a long-term outage. However, this type of failure is extremely uncommon.

The following options were developed to address the failure mechanisms listed above and satisfy the IDEQ pressure requirements.

Option A: Drill a second well

Drilling a second well would address failure mechanisms 3 (well pump/motor failure) and 4 (well failure), but would not guarantee that the system would maintain pressure at all times. In the event of a power outage or booster pump failure; the system would still be out of water. The estimated cost to design and construct a new well and pumping system and tie it into the existing system is $200,000. This assumes that a second well can be sited on the existing well lot. Drawdown testing should be performed to assess the risk of well interference if this option is pursued.

Option B: Standby Power for Booster Pumps

Providing standby power for the booster station would protect the system from the most common failure mechanism (2), power outages. In order to maximize the usefulness of this option, the storage reservoir would also need to be repaired to allow the maximum volume of standby water storage. With the reservoir repaired, the system would have 192,000 gallons of storage available during an outage. The drawback to this alternative is that in the event of a well failure or extended power outage, it would be necessary to haul water to the reservoir. The estimated budget to repair the reservoir is less than $10,000 assuming that the repairs can be made using Xpex or other similar treatment method. If a liner must be installed, the estimated cost is $32,000

In order to start and run the one 25 horsepower and two 10 horsepower pumps, an 80 KW standby generator would be required. The material cost of a unit of this size and an automatic transfer switch is approximately $36,000. An additional $5,000 should also be budgeted for installation and miscellaneous electrical modifications.

Under this option, it would also be important to have an early warning system that would alert the operators of a problem before the reservoir drained out. A simple float and autodialer system could accomplish this for an estimated cost of $2,000 to $2,500. Part of the problem with the current system is that the operators are not always aware of a problem before they receive complaints of low pressure.

Option C: Standby Power for both Booster and Well pumps: Another alternative would be to install a standby generator large enough to be able to run both the well and booster pumps. This would protect the system from outages under most conditions. A mechanical failure of the well pump would still make it necessary to haul water to the reservoir. As with Option B, the reservoir would need to be repaired.

A 250 KW standby generator would be required for this option at an approximate cost of $56,000, including the transfer switch plus $5,000 for installation. Additionally, having a spare well pump and motor in inventory would provide protection under nearly all circumstances. A spare 100 HP pump and motor would cost approximately $15,000.

Option D: Elevated Storage: Construction of elevated storage would provide the most reliable system of maintaining pressure. However, the duration of the protection would be limited by the size of the reservoir. This type of reservoir is also very expensive to construct. For example, the 68,000 gallon elevated storage reservoir recommended in the Spirit Lake East Water System Evaluation had an estimated total project cost of $424,000. This estimate assumes the storage will be sited on the well lot or on property owned by the Spirit Lake East Homeowners Association and does not include any land acquisition costs. Depending on the site selected, the elevated storage would also help equalize pressures during normal operations.

Analysis of Alternatives:

Based on the above, it appears that the highest degree of protection against water outages would be provided through the installation of standby power. Having a spare well pump and motor in inventory would make the system very secure.

It is also recommended that an autodialer be installed to alert operators if the reservoir levels get too low. Also, the reservoir itself should be repaired so that all of the available standby storage can be utilized.

The total estimated budget to do all of the above would be as follows:

250 KV genset/transfer switch	$61,000
Reservoir Repairs	$10,000
Spare Pump/Motor	$15,000
Autodialer System	$ 2,200
Total	$88,200

Drilling a second well would provide less system reliability than the above improvements at more than twice the cost. Elevated storage would provide a higher level of reliability but only for short duration events. There would also be a secondary benefit of pressure equalization under peak operating conditions. However, elevated storage would be the most expensive option.

We would be pleased to review these options with you in more detail and help work with you and IDEQ to reach a solution that meets everyone's needs. If you have any questions please feel free to give me a call.

Sincerely,
Welch Comer & Associates, Inc.

Steven B. Cordes, P.E.
Project Manager

SBC/gym

EXHIBIT B

April 22, 2005

Robert J. Boyle
Vice President of Hanson Industries, Inc.
Spirit Lake East Water Company
15807 E. Indiana Avenue
Spokane, WA 99216-1864

RE: **Spirit Lake East Water System Improvements**

Dear Mr. Boyle:

On March 15, 2005, this office received a letter from you providing information on your proposal for making improvements to the Spirit Lake East water system. Your letter responded to my February 18, 2005 letter with a commitment to complete the following nine (9) water system improvements before July 15, 2005:

a. Repair of tank wall leaks.
b. Repair of tank roof.
c. Installation of a standby generator.
d. Installation of an auto-dialer.
e. Purchase of a replacement well pump for standby with the existing well.
f. Starting a cross-connection control program.
g. Starting of a wellhead protection program.
h. Installation of an exterior vent from the chlorine solution tank.
i. Repair of the water meter on the well discharge line.

On March 24, 2005, this office received a submittal from Steve Cordes, P.E. of Welch Comer and Associates consisting of a proposal for the "Spirit Lake East Water System Maintenance and Repair" project and plans and specifications for supply and installation of a standby power generator on the Spirit Lake East water system. We have reviewed these two proposals and have the following comments

Spirit Lake East Water System Maintenance and Repair: This proposal dated March 2005 as stamped by Philip Boyd, P.E. of Welch Comer and Associates identified three items of repair or modification work. Two items involved work on the existing 190,000-gallon concrete ground-level water storage reservoir. Areas of the tank walls subject to leakage will be resealed with application of Xypex sealant products first on the tank interior and then on the tank exteriors. The existing roofing surface material will be entirely removed and the joints between the pre-cast concrete roof deck sections will be re-sealed using the same Xypex product used on the tank wall cracks. As the third item, the chlorine solution tank located in the pumphouse will be equipped with a vent hose extending from the tank to outside the building.

Although the exact Xypex product to be used was not identified in the submittal, the Xypex Corporation has several protective barrier materials listed by NSF/ANSI under Standard 61 (Drinking Water System Components – Health Effects) that would be acceptable as sealant on this tank. A copy of the listing is enclosed. As long as the Xypex sealant used is NSF/ANSI Standard 61 listed as required by Idaho drinking water rules and is specifically identified with as-builts, use of this product to seal the tank walls and roof is acceptable to DEQ.

The proposal outlined a construction procedure that keeps the water reservoir in service while the work is being done inside and on top of the tank. Since there are no guarantees or provisions specified that would ensure a reliably safe drinking water supply could be maintained while workers are inside and on top of the tank removing debris, applying the sealant, and removing waste products, the proposed practice of maintaining service through the tank while the work is being performed is not acceptable to DEQ.

An alternative method for maintaining the water system in operation while the water reservoir is isolated from service and repaired needs to be developed. DEQ suggests that temporary water storage capacity be mobilized to the site to replace the tank while it is out of service and being repaired. Please note that the product requires a minimum cure time of three days and set time of twelve days so it will take at least a month to complete the repair. Before the tank work is started, DEQ will need to approve an alternative construction method involving taking the tank out of service.

When the tank walls are repaired and sealant has fully cured, the tank needs to be filled to the overflow elevation and tested by examination for leakage. Although not mentioned in the proposal, the absence of any observable wall leaks as certified by the design engineer is considered by DEQ to constitute acceptable seal. Because the inside sealant is more effective, we recommend that the inside sealant be applied and accepted before any external sealant is applied.

The slope of the roof should be measured and examined to ensure that it is sufficient to prevent ponding of water on the roof. Water accumulation on the roof can result in the seals at joints failing due to freeze effects. If the roof can structurally handle additional loading as verified by your engineer and the existing slope is insufficient, DEQ recommends that consideration be made to placing a capping concrete layer on top of the resealed roof.

Standby Power Generator: Plans and specifications as prepared by Terry Stulc, P.E. of Trindera Engineering and submitted by Welch Comer and Associates on March 24, 2005 for supply and installation of a standby power generator next to the Spirit Lake East water system pumphouse have been reviewed. This installation consists of a diesel engine-driven generator and associated items all intended to operate the submersible well pump and three existing booster pumps on this system during power failures.

The submitted plans and specifications were found to be acceptable and are hereby approved for construction purposes in accordance with the Idaho Rules for Public Drinking Water Systems and Section 39-118 of Idaho Code. The system auto-dialer needs to send a phone signal to the system operators whenever the standby generator is automatically activated.

Inspection of installation of the power generator approved herein must be done by an Idaho licensed Professional Engineer (P.E.) or by someone under the direct supervision of a P.E. If major modifications to this accepted design are necessary, the design engineer must secure DEQ approval of the changes prior to implementation of the changes. Section 39-118 of Idaho Code requires preparation of complete and accurate as-built plans as certified by the inspecting engineer. The as-built plans need to be submitted to DEQ for review and approval within thirty (30) days of completion of construction.

Since the 400-gallon fuel tank for the diesel engine will be double-walled with interstitial monitoring for leakage, it is acceptable to DEQ. However, you should contact the Panhandle Health District (Rick Barlow at 415-5200) to ensure compliance of this fuel tank with the Critical Materials Ordinance applicable for installations located over the Spokane Valley – Rathdrum Prairie Aquifer.

Outstanding Compliance Items: Of the nine items listed above as a-i, the recent submittals have addressed four of the items – items a-c and h. Compliance with the remaining items prior to your commitment date of July 15, 2005 still needs to be accomplished with the following actions.

d. Installation of an auto-dialer. This can be accomplished by working with your electrical engineer who can oversee installation of an auto-dialer system used to alert the operators during problems.

e. Purchase of a replacement well pump for standby with the existing well. Submittal of evidence of purchase of a standby submersible pump and motor capable of replacing the existing well pump with storage of the pump on-site.

f. Starting a cross-connection control program. Submittal of a draft cross-connection control ordinance to Tony Davis at this office including an implementation schedule for the system operator to conduct inspections of existing installations and locations needing installation of backflow devices (irrigation systems mostly)

g. Starting of a wellhead protection program. Submittal of a plan to Yvonne Pettit at this office for implementation of a wellhead protection program at Spirit Lake East.

i. Repair of the water meter on the well discharge line. Submittal of evidence that the water meter has been repaired, is operating properly, and the operator is taking periodic flow data.

In summary, DEQ has accepted the proposed water tank wall and roof repairs conditioned on taking the tank out of service while the repairs are completed. Installation of the vent tube on the chlorine solution tank is also acceptable. Plans and specifications for supply and installation of the proposed standby generator have been approved as long as the installation includes an auto-dialer message sent to the system operators whenever an automatic switchover to the generator is done during power outages. And finally, five compliance items as listed above still need to be implemented or completed before July 15, 2005.

Sincerely,

Gary J. Gaffney, P.E.

Enclosure (NSF Xypex listing)

c: Steve Tanner & Anthony Davis, DEQ, CdA
Steven Cordes & Phil Boyd, Welch Comer and Associates, 1626 Lincoln Way, CdA
Terry Stulz, Trindera Engineering, 1859 Lakewood Drive, Suite 103, CdA 83814
John Hammond, Jr., Batt & Fisher LLP, P.O. Box 1308, Boise, ID 83701
Harry Hall, IPUC, P.O. Box 83720, Boise, ID 83720-0074
Ron Sutcliffe, Deputy AG, DEQ, Boise
John Balbi, 31772 N. Kelso Drive, Spirit Lake, Idaho 83869
(#8577 with Spirit Lake East pws file)

EXHIBIT C

September 26, 2005
Gary Gaffney
Department of Environmental Quality
State of Idaho
2110 Ironwood Parkway
Coeur d' Alene, ID 83814-2648

RE: Spirit Lake East Water Company

Dear Mr. Gaffney:

I am providing you information re: the repairs mandated in your September 20, 2005 letter for our meeting this Wednesday. We can discuss these items in an agenda format to assist us in addressing all the issues.

1. Roof Repair: portions of the damaged roof were removed to 16" and replaced by gluing down and then the same type shingles were placed over the repair shingles and glued down. A band of metal sheeting (about 1"-2" inch thick) was placed around the perimeter of the roof to prevent wind from peeling it back. This is how the roof was damaged. The roof was water tested for one hour (generating over 2" of water onto the roof and flowing off of it) and there were no leaks detected into the tank from the roof. The water inside the tank was not subject to any possibility of contamination from the roof repairs since the solid concrete top was not breached in the repairs or previously by the peeled back shingles. Our engineer, Phil Boyd, can provide further technical details at our meeting.
2. Tank Repair: the exterior tank repair will be discussed in detail at our meeting. Water quality tests were taken before and after the repair and showed no presence of coliforms. A copy of the reports will be provided at our meeting. Although we did not repair the tank internally as was agreed upon earlier, we believe this method of repair was far safer than the health risks associated with taking the tank down and providing temporary water storage. In addition, if this repair is effective, the costs are minimal which in turn will benefit our ratepayers. Lastly, the internal repair was premised upon a third party buying the system who preferred the repair be performed in this manner. Our engineer, Phil Boyd, can provide further technical details at our meeting.
3. Standby Power: we have possession of a genset capable of satisfying the need for pressure. I need to discuss this issue at length at our meeting.
4. Pump and Motor: we have the inventory pump and motor in place in the pump house.

EXHIBIT D

As the result of the meeting held today with Raymond Hanson and Robert Boyle of Spirit Lake Water Company and Phil Boyd of Welch Comer and Associates, I have prepared the following conclusions regarding the nine compliance items:

1. **Storage Tank Wall Repairs:** Mr. Hanson acknowledged that he had authorized work on the tank repairs without securing DEQ concurrence but defended his decision to proceed without the engineer's assistance based on Phil Boyd's decision to not purchase the water system. When the DEQ approved coating material (Xypex) proved to be ineffective, it was removed and replaced without notifying DEQ by a Tamms Industries coating (Hey'Di K-11/Hey'Di SB[1]). A printout showing this material has NSF/ANSI Standard 61 listing was provided. Photos of the wall repairs were provided. The repair consists of a 20-foot long horizontal crack that may have developed as the result of a cold joint involved with the original concrete pour for the tank in the 1980s. Both the interior and exterior of this tank were coated with a thin concrete coating (gunnite or shotcrete) when it was originally completed.

   They reported that the operator sampled the water system before and after the crack work for coliform bacteria and all results were absent bacteria. At this time, the operator, Jim Kruger, is applying more coats of the Tamms product to the outside repair and will be refilling the tank to above the elevation of the crack to see if the repair has stopped all visible leakage.

   The original plan was to also repair any cracking present in the interior of the tank. Although the owners felt exterior repairs might prove to be effective in stopping tank leakage, the owners could not confirm that the condition of the tank interior was sound. This water tank has been in continuous service for about 25 years apparently without having the tank interior closely examined or cleaned of debris once. We asked the engineer to examine the tank interior as best he can manage and report back to DEQ with his observations and recommendations. If the interior of the tank exhibits evidence of sediment accumulation on the bottom, shotcrete spalling, or significant cracking, then DEQ expects the owner to develop a plan for cleaning the tank interior. If the engineer's initial evaluation suggested a need to look closer or clean the tank, we suggested the owner consider hiring one of the professional tank inspection and maintenance companies like Liquid Engineering who can use approved methods for going inside a water tank while it remains in service. We referred Bob Boyle to Terry Werner with the Post Falls water department who used these services on their 1 MG Highland tank.

   (Note: A chlorinator was installed on this water system in the 1990s after it experienced periodic bacteriological contamination. The source of the bacteria problem has not been exactly determined but may be due to the roof and wall problems in the water tank. Other sources of contamination could be from the aquifer or from the distribution system but are less likely. Tank repairs might be followed by an experiment to move chlorination from the well discharge to the booster pump to see if storage in the tank can be done without introducing bacteria into the system.)

2. **Tank Roof Repairs:** A qualified contractor was retained by Mr. Hanson to make repairs to the overlay material on the top of the tank roof. They reported that sections of the roof overlay material was cut out and replaced with new patches of similar material using sealed joints. Along the perimeter of the tank, this contractor installed metal stripping section that were secured by screws into the span-deck precast concrete sections that make up the roof. The operator installed a water sprinkler on top of the roof and ran it until there was 2-inches of water inside a vessel set under the sprinkler. It was reported that the operator looked inside the access hatch and could not observe any of this water moving through the roof and dripping into the water below. Pictures of the roof were provided. The roof may have a low spot where water accumulates into a pond. No joints between the roof units were cleaned and repaired with placing a coating sealant into the joints. While we felt unsure that this work was adequate to seal the roof from leakage into the tank, we felt interior inspection of the tank might reveal whether water or daylight is coming through the roof member joints.

3. **Standby Power Generator**: Mr. Hanson reported that they had purchased a diesel-powered, 55-Hp capacity, standby generator capable of running the three booster pumps all at once but not capable of operating the

100 Hp well pump. He presented a 2004-5 two-year history from Koot. Electric Coop. for power outage history for the area showing only a half dozen outages occurred with none longer than two hours in duration. The 190,000 gallon water tank should have enough capacity to supply the booster pumps during a several hour power outage. (The peak instantaneous demand by 232 homes might be about 250 gpm which would consume 30,000 gallons of storage during two hours with a full tank lasting about 12 hours. With maximum 366 connections, peak demand might be about 350 gpm which would use about 40,000 gallons of storage and empty a totally full tank in about 9 hours.) We agreed that standby power capable of running the booster pumps was practical and acceptable.

The generator is a skid-mounted unit that will be installed in a lean-to built next to the booster pumphouse. It will have an automatic switch to power the boosters in the event of a power outage and also energize the auto-dialer circuit alerting the operator of tank levels. Mr. Hanson indicated this installation will be installed and operational before the end of October. The diesel tank on the generator will have a secondary containment provision. (The PWS Rules say the following about generators on well lots (IDAPA 58.01.08.550.03.r):

> i. An internal combustion engine to drive either a generator for emergency standby power or a pump to provide fire flows, and an associated fuel tank, may be placed on the well lot. (5-3-03)
> ii. A propane or natural gas powered generator is preferable to reduce risk of fuel spillage. (5-3-03)
> iii. If a diesel or gasoline-fueled engine is used, the fuel tank and connecting piping must be double-walled. The tank must be above ground and may be contained within the structural base of the generator unit. A certified water system operator shall be present during filling of the tank following a period of usage, or during periodic extraction and replacement of outdated fuel. (5-3-03)
> iv. Should the internal combustion engine be located within the well house, the floor of the well house shall be constructed so as to contain all petroleum drips and spills so that they will not be able to reach the floor drain(s). Engine exhaust shall be directly discharged outside the well house. (5-3-03)
> v. A spill containment structure shall surround all fuel tanks and be sized to contain one hundred fifty percent (150%) of the fuel tank volume. (5-3-03)

4. **Auto-dialer:** The auto-dialer system is installed and operational. A catalog cut for the device called GUARD-IT as made by Rayco was provided. The delay in securing this item was due to Verizon's delay in installing a phone line to the pumphouse. The dialer connects to operator Ray Kruger with defaults to the Spokane office of the company. It alerts the operator of low levels of water in the storage reservoir.

5. **Spare Well Pump & Motor:** Mr. Hanson reported that the spare well pump and motor are in the company's shop in Spokane. We asked that they move the pump and motor arrangement into the SLE pumphouse so that it is easily available for use in case of a well pump failure. They agreed. Failure of the well pump in October of 2004 was apparently caused by damage to an improperly secured power line inside the well.

6. **Cross-connection Ordinance:** Mr. Boyle is ready to issue notices to users instructing them about compliance with this ordinance but will first sent the notice in draft format for Tony Davis to review. We indicated that the ordinance should be applied to all existing and new services where a cross-connection potential exists. These will probably be automatic irrigation systems and stock watering tanks. We directed Mr. Boyle to contact Robert Hansen at 208-2654270 for assistance with identifying certified backflow prevention device testers in Idaho.

7. **Wellhead Protection Plan:** It was agreed that implementation of a wellhead protection plan would wait until a later date when the program could be done by others for perhaps new system owners.

8. **Chlorine Solution Tank Vent:** A picture was provided showing a vent pipe had been installed to vent chlorine fumes out of the tank to prevent corrosion of the pumproom equipment. Corroded pipes have been repainted.

9. **Flow Meter:** It was reported that the flow meter on the well discharge line has been placed back in service but that the operator indicated that only two of the three propellers inside the meter were present. Since this brings into question the meter's accuracy, this flow meter will be checked further to make certain it is operating with all its parts.

   We discussed the importance of the system operator monitoring water usage. We suggested that elapsed time meters be installed on each of the three booster pumps as a way to measure distribution demand, check the well flow meter, and establish water demand characteristics. These elapsed time meters are relatively inexpensive and can be installed by an electrician when the standby generator controls are installed. An elapsed time meter installed on the well pump would also be wise.

   There are presently 232 active connections on this water system with a potential for a maximum of 366 lots/services.

Disapproval Notice: The DEQ letter disapproving the system required issuance of a disapproval notice to all users within 10 days (September 30th). Although there were objections voiced to this requirement, Mr. Boyle will draft a notice for DEQ review and intends to issue it. We indicated it was acceptable for the notice to be drafted as a newsletter-type document so as to not alarm the users.

In summary it appears that items 2, 4, 7, and 8 are substantially completed. Items 1, 3, 5, 6, and 9 need additional attention. The next step should be for the engineer to report to DEQ on items he took from the meeting as needing additional attention. Disapproval status should remain on the system until all nine deficiencies are resolved.

Gary J. Gaffney, P.E.
Idaho Department of Environmental Quality
2110 Ironwood Parkway
Coeur d'Alene, ID 83814-2648
Tel: (208) 769-1422
Fax: (208) 769-1404
E-mail: ggaffney@deq.idaho.gov

Thursday, September 29, 2005

EXHIBIT E

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814-2648 • (208) 769-1422

Dirk Kempthorne, Governor
Toni Hardesty, Director

April 28, 2006

Robert J. Boyle
Hanson Industries, Inc, Vice President
Spirit Lake East Water Company
15807 E Indiana Ave
Spokane, WA 99216-1864

John Hammond, Jr
Batt & Fisher, LLP
PO Box 1308
Boise, ID 83701

Re: Spirit Lake East Water System Improvements

Dear Mr. Boyle and Mr. Hammond:

On April 11, 2006, Steve Tanner, Stephanie Ebright, and I, representing the Idaho Department of Environmental Quality (DEQ), inspected the water system to determine compliance with DEQ's letter of January 24, 2006 that outlined remaining water system deficiencies. These deficiencies were as follows:

1. Repair of leaks in the wall of the reservoir.
2. Repair of reservoir roof.
3. Installation of a standby generator to provide power to the water system pumps during power failures.
4. Installation of an auto-dialer to notify the operator when problems occurred at the water system facilities.
5. Purchase of a replacement pump for the well to minimize the length of time that the water system would be out of water should equipment fail.
6. Initiating a cross-connection control program.
7. Installation of an exterior vent from the chlorine solution tank.
8. Repair of the water flow meter on the well discharge line.

The DEQ has found that, with the exception of item number 2 above, the water system has adequately addressed all other listed system deficiencies.

In regards to item number 2, repair of reservoir roof, by letter on October 6, 2005, the DEQ recommended that the system instigate a sampling plan in order to ensure that the water in the reservoir was not subject to contamination. If the water system agreed with this sampling proposal, the DEQ asked that the system so indicate in writing by October 31, 2005. As of this date, the DEQ has not received a written response from the system agreeing to the sampling proposal.

On November 1, 2005, representatives of the DEQ inspected the water system and noted ponding on the reservoir roof. At the time of the April 11, 2006 inspection, the DEQ representatives again observed ponding on the reservoir roof. Water ponding on the roof can result in the joint seals failing due to freeze effects and water in the reservoir becoming contaminated. The Idaho Rules for Public Drinking Water Systems, currently applicable to the reservoir, require that "storage reservoirs have adequately drained watertight roofs or covers." Title 1, Chapter 8, Section 1-8307.03 (1977). Additionally, the applicable rules require that "reservoirs shall be constructed and maintained in such a manner that stored water is protected from all possible sources of contamination." Section 1-8307.01.

In order for the system to regain an approval designation and to ensure that water in the reservoir is protective of public health, the DEQ requests that the system conduct a sampling effort that includes relocating the chlorination system to inject into the discharge side of the booster pumps and sampling the water pumped from the well and of water stored in the reservoir weekly for total coliform during a six-month period. If the system does not wish to conduct a sampling effort as proposed, the DEQ requests the system provide an alternative proposal, to the agency, detailing actions the system will take to ensure that the roof is draining adequately and that stored water in the reservoir is protected from all possible sources of contamination along with a timeline for completing such actions. The system shall provide, in writing, its preferred option to the DEQ by May 12, 2006. Once the system and the DEQ have agreed to a sampling plan or alternative proposal, along with timelines for completion, the agency will reassign an approval designation to the system.

If you have any further questions on this matter, please contact DEQ at 2110 Ironwood Parkway in Coeur d'Alene. Our phone number is (208) 769-1422.

Sincerely,

Anthony P. Davis
Analyst

c: Stephen Tanner, IDEQCdA
Stephanie Ebright IDEQSO
Jerri Henry IDEQSO

EXHIBIT F

PURCHASE AND SALE AGREEMENT

by and between

KAISER ALUMINUM & CHEMICAL CORPORATION,

a Delaware corporation,

"Seller,"

and

HANSON INDUSTRIES, INC.

a Washington corporation

"Purchaser,"

dated November 11, 2003

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT is made and entered into this 11th day of November, 2003 by and between KAISER ALUMINUM & CHEMICAL CORPORATION, a Delaware corporation ("**Seller**"), and HANSON INDUSTRIES, INC. a Washington corporation ("**Purchaser**").

RECITALS

WHEREAS, Seller is the owner of approximately 157.23 acres of real estate located in Mead, Washington, commonly known as Parcel 2 and legally described on the attached **Exhibit A** (the "**Real Property**," which together with appurtenances and improvements thereto is collectively referred to and more specifically described below as the "**Property**").

WHEREAS, Purchaser wishes to purchase from Seller and Seller wishes to sell to Purchaser the Property upon the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, inconsideration of the terms and provisions of and the mutual promises and covenants set forth in this Agreement, the parties hereto hereby agree as follows:

1. Property.

1.1 Included Property.

Seller shall sell and convey to Purchaser and Purchaser shall purchase and acquire from Seller the Real Property together with all buildings and improvements thereon and all rights, titles and interests of Seller in and to easements, appurtenances, rights, privileges, belonging or appurtenant thereto; all trees, shrubbery, and plants now in or thereon; all rights, titles, and interests of Seller in and to all alleys, strips, or gores of land, if any, lying adjacent thereto; all rights, titles, and interests of Seller in and to all leases, rights-of-way, rights of ingress or egress, or other interests in, on, or to, any land, highway, street, road, or avenue, open or proposed, in, on, across, in front of, abutting, or adjoining thereto; all rights, titles, and interests of Seller in and to all buildings, fixtures, equipment and other improvements located thereon as of the Effective Date, except for the Excluded Property (defined below); rights, title and interests in all permits, certificates, approvals, and licenses (to the extent freely assignable) with respect thereto, including, but not limited to, certificates of occupancy and conditional use and other permits; and all rights, titles, and interests of Seller to water rights appurtenant thereto (collectively together with the Land, the "**Property**"); subject, however, to the provisions of Sections 1.2 and 1.3.

1.2 Excluded Property; Access.

Notwithstanding the foregoing, the fixtures, equipment and personal property described on the attached **Exhibit B** (the "**Excluded Property**") shall not be sold to Purchaser and shall remain the property of Seller; provided that if Seller fails to remove the Excluded Property on or before twelve (12) months after the Closing Date (defined below) the Excluded Property shall, as a matter of convenience to the parties and at no additional consideration, become the property of

EXHIBIT G

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE

In re:	:	
	:	**Jointly Administered**
KAISER ALUMINUM CORPORATION, a Delaware corporation, et al.,	:	**Case No. 02-10429 (JKF)**
	:	
	:	**Chapter 11**
Debtors.	:	
	:	**Re: Docket No. 3169**
	:	**Agenda No. 7**
		Hearing: December 15, 2003 at 3:00 p.m

ORDER AUTHORIZING DEBTOR AND DEBTOR IN POSSESSION KAISER ALUMINUM & CHEMICAL CORPORATION TO ENTER INTO SALE AGREEMENT AND SELL CERTAIN REAL PROPERTY, REFERRED TO AS PARCEL 2, LOCATED IN MEAD, WASHINGTON FREE AND CLEAR OF LIENS, CLAIMS AND ENCUMBRANCES

This matter coming before the Court on the Motion of Debtor and Debtor in Possession Kaiser Aluminum & Chemical Corporation for an Order Authorizing it to Enter into Sale Agreement and Sell Certain Real Property, Referred to as Sale of Parcel 2, Located in Mead, Washington Free and Clear of Liens, Claims and Encumbrances (the "Motion"); the Court having reviewed the Motion, the pleadings relating thereto and having been advised at the hearing on the Motion (the "Hearing") of the First Amendment (the "First Amendment") to the Hanson Sale Agreement (as such capitalized term is defined in the Motion), which reflects a revised sales price of $500,000 for Parcel 2; the Court finding that (a) the Court has jurisdiction over this matter pursuant to 28 U.S.C. §§ 157 and 1334; (b) this is a core proceeding pursuant to 28 U.S.C. § 157(b)(2); (c) notice of the Motion was adequate under the circumstances; (d) the sale of Parcel 2 as set forth in the Hanson Sale Agreement, as amended by the First Amendment, is a reasonable exercise of KACC's business judgment, complies with section 363 of the Bankruptcy Code and is in the best interest of KACC's estate; and (e) the sale of Parcel 2 pursuant to the terms of the First Amendment has been approved by the statutory committees appointed in this case and the legal representative for future asbestos claimants; and the Court

having determined that the legal and factual bases set forth in the Motion establish just cause for the relief granted herein;

IT IS HEREBY ORDERED THAT:

1. Subject to the terms of this Order, the Motion is GRANTED.

2. Capitalized terms not otherwise defined herein have the meanings given to them in the Motion.

3. KACC shall file a notice of the First Amendment and the sale price reduction on all parties requesting notice in these cases. The notice shall provide that all parties in interest must file any objection to the sale pursuant to the Hanson Sale Agreement, as modified by the First Amendment, within 10 days of the filing and service of the notice and that KACC will be authorized to consummate the sale without further Court order if no objections are filed. If an objection to the sale is filed, any response must be filed within one business day following the filing of the objection. The Court will thereafter take the matter under advisement. If no objections are filed within the requisite 10-day period, this Order shall automatically become effective the day after the last day of the objection period, and the parties to the Hanson Sale Agreement, as amended by the First Amendment, shall be authorized to take all actions and enter into all transactions authorized by this Order immediately.

4. Subject to the notice required above and pursuant to section 363 of the Bankruptcy Code, KACC is authorized to sell Parcel 2 to Hanson in accordance with the Hanson Sale Agreement, as amended by the First Amendment.

5. Hanson shall take Parcel 2, pursuant to the terms of the Hanson Sale Agreement, as amended by the First Amendment, free and clear of liens, claims, encumbrances, and other interests, in accordance with section 363(f) of the Bankruptcy Code. All such liens, claims, encumbrances and other interests shall attach to the proceeds of the sale with the same

validity and priority as they attached to Parcel 2; provided, however, that the order of priority of such liens, claims and encumbrances and other interests shall be as set forth in the Second Amended and Restated Final Order Authorizing Secured Post-Petition Financing on a Super Priority Basis Pursuant to 11 U.S.C. §§ 363, 364, and 507(b) and Granting Relief from Automatic Stay Pursuant to 11 U.S.C. § 362, entered on August 13, 2003 (the "Financing Order").

6. KACC shall apply the net proceeds of the sale of Parcel 2 in accordance with the Financing Order.

7. Subject to the notice required above, KACC is authorized to consummate the transactions contemplated by the Hanson Sale Agreement, as amended by the First Amendment, and enter into any and all agreements or transactions that it deems necessary or appropriate to carry out the proposed sale of Parcel 2 and the terms of this Order without further application to this Court.

8. Subject to the notice required above, this Order is effective upon its entry and no stay of this order, pursuant to Bankruptcy Rule 6004(g), shall apply.

Dated: 12/18, 2003

UNITED STATES BANKRUPTCY JUDGE