

MEMORANDUM

Date: June 1, 2011
To: Water Right Files 01-7010B
From: Michele Edl
Re: licensing review

Water right permit, 1-7010, was issued to North Side Canal Company on June 29, 1977. The permit was amended in 1985 and in 1986 to include additional or alternative places-of-use. The base right was divided into four parts, 1-7010 A,B,C, and D, when some of the alternative places-of- use were by developed by separate business entities. Proposed place-of-use, Alt #1, was successfully developed and is now the location of the Bypass Limited power plant.

Applicant

On March 29, 1985, the North Side Canal Company, Ltd. filed an application with FERC for an exemption from licensing for the site which matches the description of the Bypass Limited location. The FERC issued Conduit Exemption #9070 to North Side Canal Company, Ltd. on September 26, 1985. On April 24, 1987, the FERC acknowledged transfer of Exemption #9070 from North Side Canal Co to Bypass Limited.

On May 8, 1987, legal counsel for the North Side Canal Company submitted a full assignment to IDWR for 1-7010. However, the department acknowledged only a partial assignment. 1-7010 part B was assigned to Bypass Limited, an Idaho Limited Partnership (ISOS #L1157), on June 25, 1987.

Sithe-Energies U.S.A., Inc. retained Charles E. Brockway to perform the beneficial use field exam. Dr. Brockway conducted the exam on June 9, 1988 and the Proof of Beneficial Use statement was received in the Southern Region office on July 1, 1988.

The current operator-manager of the Bypass Ltd project is CHI Mountain States Operations, Inc. (ISOS #C92864). They are a subsidiary of ENEL Green Power North America. ENEL North America, Inc. acquired all of the ownership interests in Bypass Ltd and FERC Exemption #9070 on July 1, 2004. ISOS shows the original assignee, Bypass Limited, an Idaho Limited Partnership, as admin terminated February 8, 2007. ISOS shows Sithe Energies U.S.A., Inc. (ISOS #C79509) as admin revoked February 17, 2000.

The chain of custody for this permit is not thoroughly documented and the effort to resolve ambiguous links before issuing a license may not be justified. There is no documentation in the file, I believe that there is a lease agreement between NSCC and ENEL. The physical works of this hydroelectric facility are completely contained within the North Side Canal Company right-of-way and that generating power is an incidental use of the irrigation water controlled by NSCC and available at this location.

Source and POD

The examiner reported that both the Milner Gooding Canal and the Twin Falls North Side Canal provide North Side Canal Co water to the powerhouse. The Milner-Gooding Canal and the Twin Falls North Side Canal divert water from the Snake River at headgates located near the north abutment of Milner Dam with the shore of Milner Reservoir. The A Lateral and the North Side Cross-Cut Diversion Canal, connect the Milner Gooding Canal to the Twin Falls North Side Canal, comingling their waters upstream to the Bypass project headwater pool.

Only one of the PODs listed on the permit is correct for the Bypass Limited hydroelectric project. That POD is located in government lot 5 (SWNW) of Township 10S, Range 21E, Section 28 and is the headworks at Milner Dam for one of the two diversion canals. The examiner lists this single POD in his report. There should be second POD in the same government lot to represent the other canal diversion. I associated the PODs for this license to existing spatial data points #360026 and #360560. An

amendment will be required before licensing.

According to available Jerome County taxlot information, the applicant does not own the property at the PODs or the POU. The BLM owns the property at the PODs. I requested and received confirmation of an existing right-of-way. On May 12, 2011, staff from the BLM's Twin Falls District that the only right-of-way in the area is for the North Side Canal Co.

Water Use

Power is the only use authorized by this permit. The FERC issued Conduit Exemption #9070 authorizing an installed capacity of 9900 kW for the Bypass project on September 26, 1985. On June 17, 1991, the FERC issued to Bypass Ltd an amendment of exemption #9070, which authorized an increase in generation from 9900 kW to 9999 kW. I found no record of a related request to IDWR for an increase in the permitted flow rate.

In the narrative of his Beneficial Use Field Report, the examiner states that he was present during turbine acceptance testing. The peak flow measured in the powerplant discharge canal during the field exam was 3224 cfs. The examiner recommended a rate of 3000 cfs, the maximum rate authorized by the permit, but failed to recommend a volume. Readings of the megawatts (MW) generated during the exam are included in the report and confirm beneficial power use. However, operation curves were not provided nor were satisfactory turbine spec sheets or nameplate data with which to request turbine curves. There were no photos of the electrical/mechanical works in the power house or photos of the civil works at the dam.

The Beneficial Use Field Report was inadequate for the purpose of issuing a license. I requested and received additional information from the current operator-manager CHI Mountain States Operations, from their parent company EGPNA, from the North Side Canal Company, and from the Idaho PUC.

The powerhouse holds three, horizontal-axis, Kaplan turbines. Two of the three units are capable of variable output and generation at flows as low as 500 cfs. Each turbine has a nameplate capacity of 1000 cfs. Together the total nominal capacity of the plant would be 3000 cfs.

The powerhouse control room does not have flow measurement displays or flow recording devices. Plant personnel rely on the North Side Canal Company for their flow data. The peak discharge documented during the field exam was a streamflow measurement collected from a rated section of the tailrace canal at the time of the turbine testing/field exam. That section is described as Main #2 in the field examiner's report. The stage-discharge relationship for that section may not have been maintained. The data provided to me for license volume calculation is based on plant inflow not plant discharge.

Information obtained from Idaho Power Company records archived at the Idaho PUC, show power generation began at the Bypass plant in May 1988. Proof was submitted in July 1, 1988, but the power plant was not fully operational during spring, shoulder-season of 1988. Generation during the entire irrigation season did not occur until the next year. Therefore, to determine representative license volume, I chose to analyze flow data from 1989.

The examiner stated that an alternative method for determining a discharge flow would be to use a calculation of plant inflow comprised of "measurements of the Bypass Canal broad-crested weir and the USGS Northside Canal Main #1 station and subtracting the irrigation diversions through the B and C canals." This formula is not quite correct.

I requested flow data and the calculation methodology from NSCC personnel. Mr. Ted Diehl, NSCC manager, provided monthly and daily calculations on 1989 data in response to my request. He explained that the inflow calculation involved the Main gage, the Bypass gage, and readings from the A, B and C gages. The flow calculations provided by Mr. Diehl show the maximum inflow for 1989 occurred in June and was 3271 cfs. This is more than the hydraulic capacity of the facility found during the turbine testing in 1988. I was unable to reproduce Mr. Diehl's calculated results.

I consulted with Water District #1 program manager, Tony Olenichak and confirmed that the inflow to the Bypass Limited hydro could be estimated using the following formula:

$$\text{Inflow} = \text{TCNI} + \text{MXCI} + \text{MGAI} - \text{B gage} - \text{C gage}.$$

TCNI, MXCI and MGAI are the codes used by the USBR to identify stations in their Hydromet database. TCNI is the Twin Falls North Side Canal gage. (The examiner and Mr. Diehl describe this as the Main #1 station or the Main gage).

MXCI is the gage at the broad crested weir in the North Side X-cut diversion from Gooding ID. The Cross Cut canal provides one of two inputs from the Milner Gooding canal into the North Side Canal above the plant. (The examiner and Mr. Diehl describe this as the Bypass).

MGAI is the A-Lateral (the A gage); the second input from the Milner Gooding Canal to the North Side Canal.

The B gage and the C gage are diversions from the headwater pool of the power plant. Data from these two laterals are likely instantaneous, once-a-day readings and only available from the North Side Canal Company.

To determine the volume for this license I assumed no spill. All available inflow was utilized to generate power and the calculated inflow was a correct representation of the turbine discharge. I also assumed that the daily spot values for the B and C laterals provided by NSCC personnel would not vary significantly from the daily average values. I summed daily average canal flows (parameter QJ) which I had retrieved from the USBR Hydromet for TCNI, MXCI and MGAI. Then I subtracted the daily instantaneous values for the B and C laterals that were given to me by NSCC personnel. Flowrates in excess of the permitted rate of 3000 cfs, were capped at 3000 cfs. Flowrates below 500 cfs, the minimum needed for power generation, were excluded from the calculation. (For details please refer to the attached spreadsheet.) The license volume will be 905,000 AF.

SOU

The examiner recommended a year-round season-of-use. However, there is no water in either canal outside of the irrigation season. I changed the season-of-use to the standard season for irrigation use for this area, which is 3/15 - 11/15.

POU

The examiner located the Bypass Limited powerhouse in the NW of NE section 13 within Township 10S, Range 20E. According to available Jerome County taxlot information, the North Side Canal Co owns the property at the place-of-use. I created the POU shape based on aerial photography and file documents.

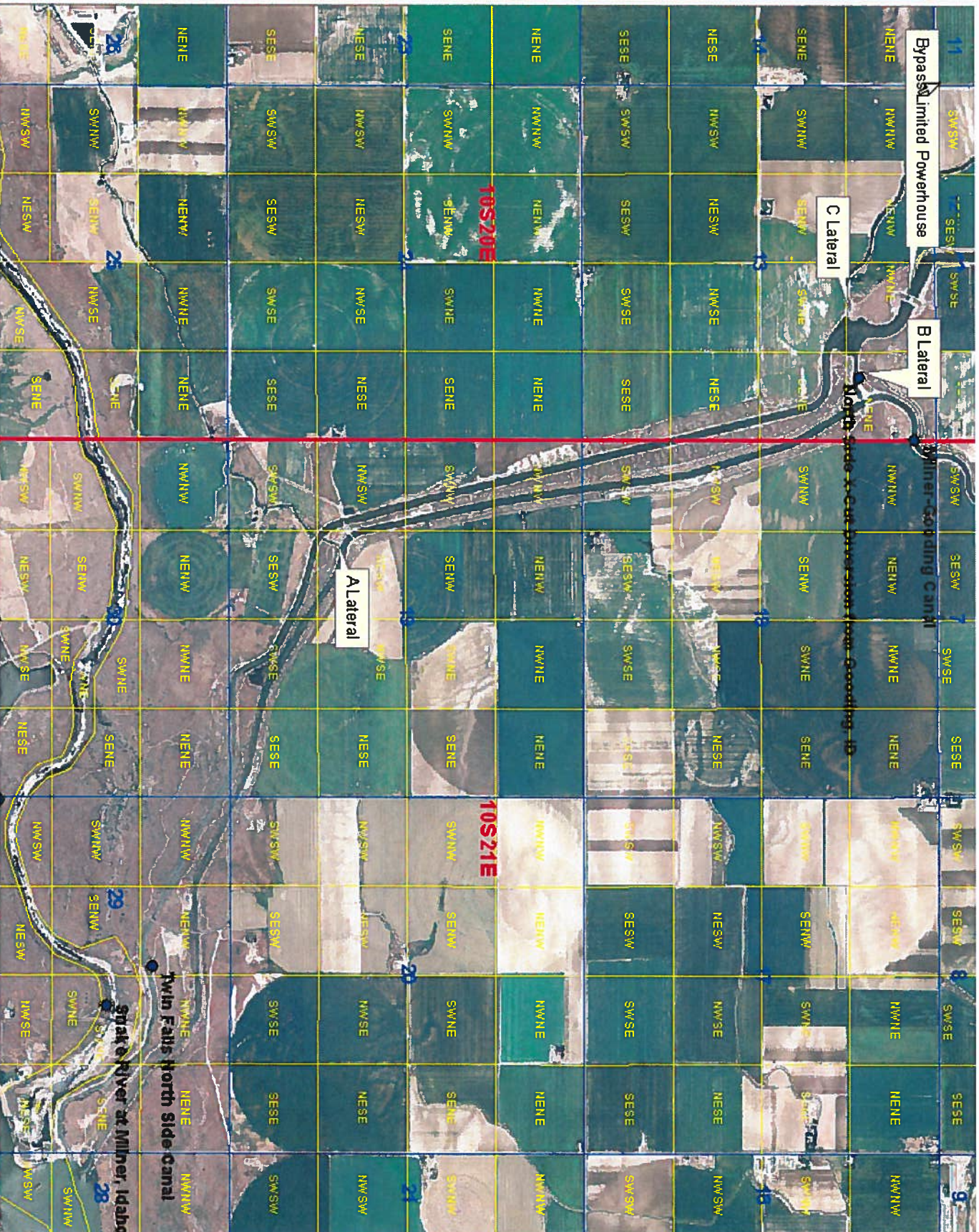
Although greater than 10 ft high, the Bypass Limited dam is entirely contained within the confines of the NSCC property and as a consequence is not monitored by IDWRs dam safety personnel.

Status/Combined Use

Turbine discharge data from Bypass Limited powerhouse is not available, however, the available measurement and calculations indicate that the facility has been putting more water to beneficial use than the permit authorized. An additional permit should be requested to cover flows up to the hydraulic capacity of the plant.

Conditions

A term for Director's review was set by an IDWR Directors order in January 24, 1985 for the root permit 1-7010. Condition 4 pins the Director's review to expiration of any FERC license. However, this project was issued a conduit exemption. A FERC conduit exemption is issued in perpetuity. The Director's review condition would not ever have been triggered. However, there is an active, 35-year, Firm Energy Sales Agreement between Bypass Limited and Idaho Power Company. The agreement was signed November 12, 1986 and will expire in 2021. The license condition which sets term limit and Director's review is based on the expiration of the sales agreement.



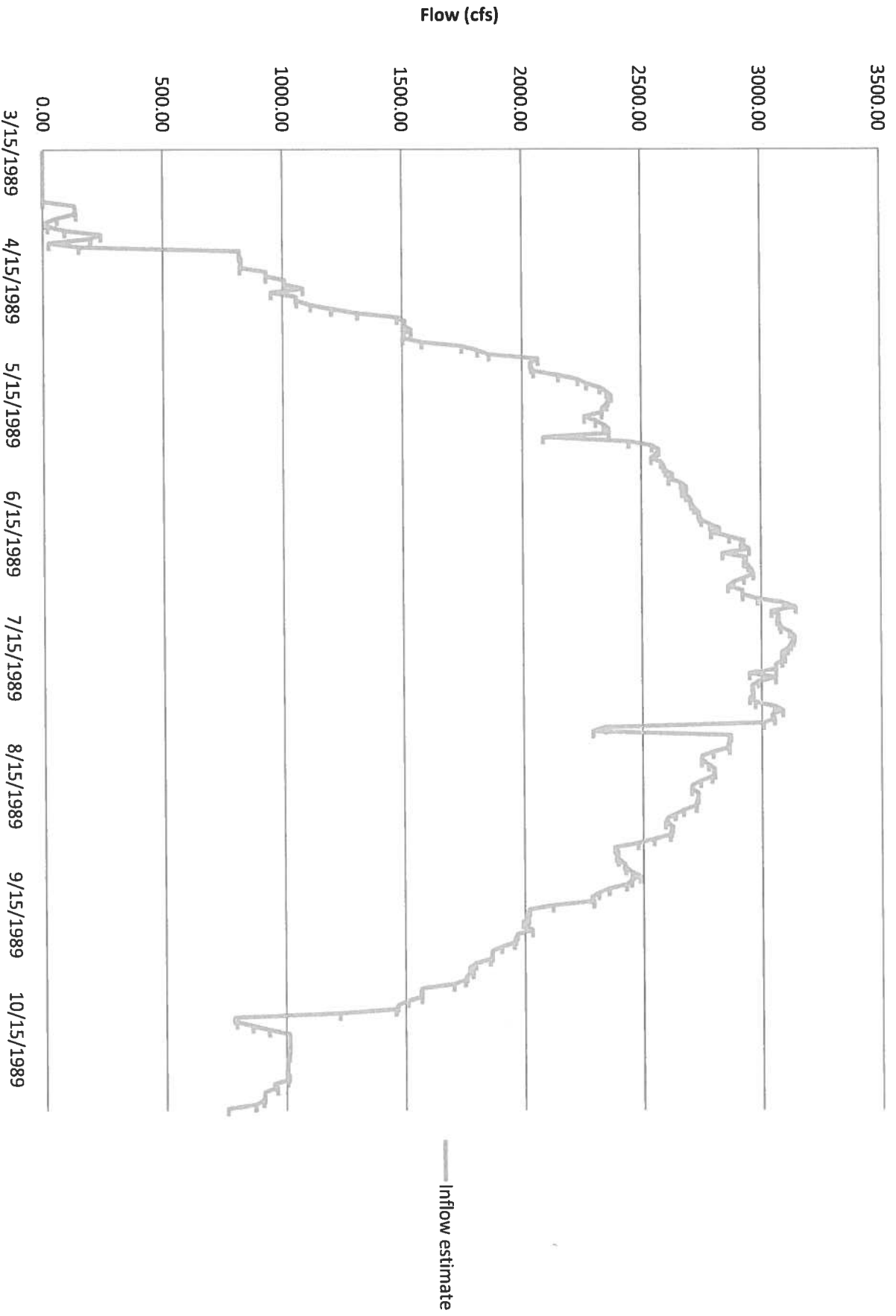
USBR Pacific Northwest Region									
Hydromet/AgriMet System Data Access									
Although the Bureau of Reclamation makes efforts to maintain the accuracy of data found in the Hydromet system databases, the data is largely unverified and should be considered preliminary and subject to change. Data and services are provided with the express understanding that the United States Government makes no warranties, expressed or implied, concerning the accuracy, completeness, usability or suitability for any particular purpose of the information or data obtained by access to this computer system, and the United States shall be under no liability whatsoever to any individual or group entity by reason of any use made thereof.									
				Sum Inputs			Sum Outputs		
DATE	TCNI QJ	MGAI QJ	MXCI QJ	TCNI+MGAI+MXCI	B lateral	C lateral	B+C	Inputs-Outputs	
3/15/1989	0	0	0	0.00			0	0.00	SOU start
3/16/1989	0	0	0	0.00			0	0.00	
3/17/1989	0	0	0	0.00			0	0.00	
3/18/1989	0	0	0	0.00			0	0.00	
3/19/1989	0	0	0	0.00			0	0.00	
3/20/1989	0	0	0	0.00			0	0.00	
3/21/1989	0	0	0	0.00			0	0.00	
3/22/1989	0	0	0	0.00			0	0.00	
3/23/1989	0	0	0	0.00			0	0.00	
3/24/1989	0	0	0	0.00			0	0.00	
3/25/1989	0	0	0	0.00			0	0.00	
3/26/1989	0	0	0	0.00			0	0.00	
3/27/1989	0	0	0	0.00			0	0.00	
3/28/1989	132.62	0	0	132.62			0	132.62	
3/29/1989	133.49	0	0	133.49			0	133.49	
3/30/1989	138.05	0	0	138.05			0	138.05	
3/31/1989	59.32	0	0	59.32			0	59.32	
4/1/1989	13.13	0	0	13.13			0	13.13	
4/2/1989	21.54	0	0	21.54			0	21.54	
4/3/1989	90.71	0	0	90.71			0	90.71	
4/4/1989	240.68	0	0	240.68			0	240.68	
4/5/1989	198.72	0	0	198.72			0	198.72	
4/6/1989	24.44	0	0	24.44			0	24.44	
4/7/1989	149.5	0	0	149.50			0	149.50	
4/8/1989	316.62	0	504	820.62			0	820.62	820.62
4/9/1989	316.88	0	504	820.88			0	820.88	820.88
4/10/1989	325.84	0	504	829.84			0	829.84	829.84
4/11/1989	325.64	0	504	829.64			0	829.64	829.64
4/12/1989	319.73	0	504	823.73			0	823.73	823.73
4/13/1989	321.34	6	606	933.34			0	933.34	933.34
4/14/1989	319.7	6	606	931.70			0	931.70	931.7
4/15/1989	322.69	6	698	1026.69	3	15	18	1008.69	1008.69
4/16/1989	322.95	6	698	1026.95	3	15	18	1008.95	1008.95
4/17/1989	410.5	8	698	1116.50	6	25	31	1085.50	1085.5
4/18/1989	553.72	8	422	983.72	6	25	31	952.72	952.72
4/19/1989	646.87	18	422	1086.87	6	25	31	1055.87	1055.87
4/20/1989	673.82	17	422	1112.82	6	47	53	1059.82	1059.82
4/21/1989	717.49	17	436	1170.49	6	47	53	1117.49	1117.49
4/22/1989	798.32	25	449	1272.32	9.5	58	67.5	1204.82	1204.82
4/23/1989	914.79	25	442	1381.79	9.5	58	67.5	1314.29	1314.29
4/24/1989	1068.35	27	449	1544.35	9.5	56	65.5	1478.85	1478.85
4/25/1989	1105.36	25	469	1599.36	12.9	74	86.9	1512.46	1512.46
4/26/1989	1097.99	25	469	1591.99	12.9	75	87.9	1504.09	1504.09
4/27/1989	1138	32	469	1639.00	15.4	87	102.4	1536.60	1536.6
4/28/1989	1137.31	41	469	1647.31	15.4	126	141.4	1505.91	1505.91
4/29/1989	1138.39	41	469	1648.39	15.4	130	145.4	1502.99	1502.99
4/30/1989	1228	35	476	1739.00	15.4	142	157.4	1581.60	1581.6
5/1/1989	1389.78	35	476	1900.78	10	142	152	1748.78	1748.78
5/2/1989	1531.56	38	476	2045.56	16	215	231	1814.56	1814.56
5/3/1989	1613.96	38	476	2127.96	16	250	266	1861.96	1861.96
5/4/1989	1697.52	41	476	2214.52	16.7	130	146.7	2067.82	2067.82
5/5/1989	1844.82	44	490	2378.82	16.7	326	342.7	2036.12	2036.12
5/6/1989	1864.36	46	490	2400.36	17	344	361	2039.36	2039.36
5/7/1989	1870.28	49	490	2409.28	17	344	361	2048.28	2048.28
5/8/1989	1982.5	49	490	2521.50	18	350	368	2153.50	2153.5
5/9/1989	2092.29	47	504	2643.29	18.5	390	408.5	2234.79	2234.79

5/10/1989	2125	44	511	2680.00	18.5	390	408.5	2271.50	2271.5
5/11/1989	2188.98	45	504	2737.98	18.5	392	410.5	2327.48	2327.48
5/12/1989	2218.64	45	504	2767.64	20	392	412	2355.64	2355.64
5/13/1989	2242.53	41	511	2794.53	18	400	418	2376.53	2376.53
5/14/1989	2232.06	41	511	2784.06	17.5	404	421.5	2362.56	2362.56
5/15/1989	2223.51	43	511	2777.51	17.5	404	421.5	2356.01	2356.01
5/16/1989	2199.77	43	511	2753.77	17.8	400	417.8	2335.97	2335.97
5/17/1989	2205.72	43	511	2759.72	17.8	406	423.8	2335.92	2335.92
5/18/1989	2154.1	43	511	2708.10	19.4	426	445.4	2262.70	2262.7
5/19/1989	2198.12	46	511	2755.12	19.4	426	445.4	2309.72	2309.72
5/20/1989	2223.69	45	511	2779.69	19.4	416	435.4	2344.29	2344.29
5/21/1989	2230.93	45	511	2786.93	21.5	400	421.5	2365.43	2365.43
5/22/1989	2231.37	45	511	2787.37	21.5	400	421.5	2365.87	2365.87
5/23/1989	1994.22	45	511	2550.22	21.5	440	461.5	2088.72	2088.72
5/24/1989	1930.97	50	931	2911.97	23.5	440	463.5	2448.47	2448.47
5/25/1989	2025.39	50	931	3006.39	24	437	461	2545.39	2545.39
5/26/1989	2076.47	50	939	3065.47	24	468	492	2573.47	2573.47
5/27/1989	2067.16	50	939	3056.16	24.5	468	492.5	2563.66	2563.66
5/28/1989	2049.86	50	939	3038.86	23.4	474	497.4	2541.46	2541.46
5/29/1989	2088.92	52	939	3079.92	23.4	474	497.4	2582.52	2582.52
5/30/1989	2076.55	55	939	3070.55	23.4	453	476.4	2594.15	2594.15
5/31/1989	2084.14	55	939	3078.14	23.6	453	476.6	2601.54	2601.54
6/1/1989	2076.72	57	948	3081.72	21.4	430	451.4	2630.32	2630.32
6/2/1989	2070.58	57	939	3066.58	21.4	430	451.4	2615.18	2615.18
6/3/1989	2118.06	58	948	3124.06	22.1	437	459.1	2664.96	2664.96
6/4/1989	2142.68	58	948	3148.68	24	437	461	2687.68	2687.68
6/5/1989	2125.17	58	948	3131.17	24.2	437	461.2	2669.97	2669.97
6/6/1989	2126.74	55	948	3129.74	24.5	418	442.5	2687.24	2687.24
6/7/1989	2125.46	54	948	3127.46	22.1	400	422.1	2705.36	2705.36
6/8/1989	2128	54	948	3130.00	21.6	400	421.6	2708.40	2708.4
6/9/1989	2142.34	52	957	3151.34	21.9	409	430.9	2720.44	2720.44
6/10/1989	2152.6	59	957	3168.60	21.9	409	430.9	2737.70	2737.7
6/11/1989	2157.08	59	957	3173.08	21.9	409	430.9	2742.18	2742.18
6/12/1989	2203.96	59	939	3201.96	22.1	430	452.1	2749.86	2749.86
6/13/1989	2267.45	59	913	3239.45	22.6	430	452.6	2786.85	2786.85
6/14/1989	2296.21	59	922	3277.21	22.6	430	452.6	2824.61	2824.61
6/15/1989	2296.66	60	913	3269.66	23.6	455	478.6	2791.06	2791.06
6/16/1989	2389.42	60	896	3345.42	23.6	455	478.6	2866.82	2866.82
6/17/1989	2423.95	60	905	3388.95	24	437	461	2927.95	2927.95
6/18/1989	2413.41	60	896	3369.41	24	430	454	2915.41	2915.41
6/19/1989	2423.37	60	922	3405.37	25	430	455	2950.37	2950.37
6/20/1989	2363.29	60	896	3319.29	25.3	455	480.3	2838.99	2838.99
6/21/1989	2454.82	60	922	3436.82	26.2	474	500.2	2936.62	2936.62
6/22/1989	2452.43	63	913	3428.43	26.5	474	500.5	2927.93	2927.93
6/23/1989	2470.63	63	913	3446.63	26.5	474	500.5	2946.13	2946.13
6/24/1989	2463.93	65	922	3450.93	26.5	465	491.5	2959.43	2959.43
6/25/1989	2471.13	66	922	3459.13	26.7	465	491.7	2967.43	2967.43
6/26/1989	2431.89	66	922	3419.89	26.5	465	491.5	2928.39	2928.39
6/27/1989	2407.65	65	922	3394.65	26.5	485	511.5	2883.15	2883.15
6/28/1989	2411.49	65	922	3398.49	26.5	511	537.5	2860.99	2860.99
6/29/1989	2478.86	66	913	3457.86	26.5	511	537.5	2920.36	2920.36
6/30/1989	2497.72	66	896	3459.72	26.5	511	537.5	2922.22	2922.22
7/1/1989	2568.73	67	905	3540.73	27	529	556	2984.73	2984.73
7/2/1989	2679	67	905	3651.00	27.2	529	556.2	3094.80	3000
7/3/1989	2694.34	67	939	3700.34	27.5	529	556.5	3143.84	3000
7/4/1989	2635.45	67	913	3615.45	24.4	548	572.4	3043.05	3000
7/5/1989	2664.51	70	913	3647.51	27	548	575	3072.51	3000
7/6/1989	2660.76	70	913	3643.76	27.5	550	577.5	3066.26	3000
7/7/1989	2686.26	74	913	3673.26	27.5	570	597.5	3075.76	3000
7/8/1989	2706.24	74	896	3676.24	27	567	594	3082.24	3000
7/9/1989	2733.74	74	905	3712.74	27	567	594	3118.74	3000
7/10/1989	2744.48	74	922	3740.48	26.5	575	601.5	3138.98	3000
7/11/1989	2732.4	73	922	3727.40	27	567	594	3133.40	3000
7/12/1989	2732.91	73	913	3718.91	27	569	596	3122.91	3000
7/13/1989	2735.3	72	905	3712.30	27	575	602	3110.30	3000
7/14/1989	2710.19	72	905	3687.19	27	575	602	3085.19	3000
7/15/1989	2686.77	72	913	3671.77	26.4	548	574.4	3097.37	3000
7/16/1989	2678	70	913	3661.00	26	548	574	3087.00	3000
7/17/1989	2659	69	905	3633.00	25.8	548	573.8	3059.20	3000
7/18/1989	2669	69	896	3634.00	25	548	573	3061.00	3000
7/19/1989	2531.09	73	905	3509.09	24.8	535	559.8	2949.29	2949.29

7/20/1989	2563.18	70	979	3612.18	24	529	553	3059.18	3000
7/21/1989	2591.14	71	879	3541.14	24.8	529	553.8	2987.34	2987.34
7/22/1989	2564.21	71	878	3513.21	24	529	553	2960.21	2960.21
7/23/1989	2549.74	69	896	3514.74	23.4	529	552.4	2962.34	2962.34
7/24/1989	2553.57	71	894	3518.57	23.4	529	552.4	2966.17	2966.17
7/25/1989	2553.46	71	879	3503.46	23.4	529	552.4	2951.06	2951.06
7/26/1989	2575.8	71	879	3525.80	23.4	529	552.4	2973.40	2973.4
7/27/1989	2630.16	71	888	3589.16	26	511	537	3052.16	3000
7/28/1989	2657.74	70	896	3623.74	24	511	535	3088.74	3000
7/29/1989	2621.62	70	896	3587.62	24	520	544	3043.62	3000
7/30/1989	2624.13	69	905	3598.13	24.4	520	544.4	3053.73	3000
7/31/1989	2588.07	69	896	3553.07	24.8	520	544.8	3008.27	3000
8/1/1989	1944.46	69	879	2892.46	26.4	520	546.4	2346.06	2346.06
8/2/1989	1998.48	70	770	2838.48	26.4	520	546.4	2292.08	2292.08
8/3/1989	2570.08	71	770	3411.08	22.2	520	542.2	2868.88	2868.88
8/4/1989	2569.74	71	770	3410.74	26.4	520	546.4	2864.34	2864.34
8/5/1989	2569.63	70	770	3409.63	26.4	525	551.4	2858.23	2858.23
8/6/1989	2576.73	68	770	3414.73	26.4	525	551.4	2863.33	2863.33
8/7/1989	2513.64	68	770	3351.64	26.5	529	555.5	2796.14	2796.14
8/8/1989	2464.55	69	770	3303.55	26.5	529	555.5	2748.05	2748.05
8/9/1989	2470.59	69	762	3301.59	26.4	529	555.4	2746.19	2746.19
8/10/1989	2500.31	68	762	3330.31	25.5	529	554.5	2775.81	2775.81
8/11/1989	2523.08	68	762	3353.08	25	529	554	2799.08	2799.08
8/12/1989	2511.14	64	770	3345.14	23.4	520	543.4	2801.74	2801.74
8/13/1989	2508.63	62	762	3332.63	22.5	520	542.5	2790.13	2790.13
8/14/1989	2454.97	64	746	3264.97	22.5	500	522.5	2742.47	2742.47
8/15/1989	2423.75	64	738	3225.75	20	498	518	2707.75	2707.75
8/16/1989	2415.15	61	738	3214.15	20	489	509	2705.15	2705.15
8/17/1989	2434.49	60	746	3240.49	20	489	509	2731.49	2731.49
8/18/1989	2447.89	49	746	3242.89	20.2	492	512.2	2730.69	2730.69
8/19/1989	2442.13	49	746	3237.13	20.2	492	512.2	2724.93	2724.93
8/20/1989	2441.16	48	746	3235.16	20.2	492	512.2	2722.96	2722.96
8/21/1989	2384.19	48	746	3178.19	20.2	488	508.2	2669.99	2669.99
8/22/1989	2353.3	48	746	3147.30	20.2	492	512.2	2635.10	2635.1
8/23/1989	2322.33	48	746	3116.33	21	492	513	2603.33	2603.33
8/24/1989	2298.47	48	738	3084.47	20.5	470	490.5	2593.97	2593.97
8/25/1989	2297.41	48	738	3083.41	20.5	440	460.5	2622.91	2622.91
8/26/1989	2293.58	46	738	3077.58	19.4	440	459.4	2618.18	2618.18
8/27/1989	2287.24	46	738	3071.24	18.5	440	458.5	2612.74	2612.74
8/28/1989	2205.49	46	738	2989.49	18.5	425	443.5	2545.99	2545.99
8/29/1989	2107.65	47	738	2892.65	18.5	395	413.5	2479.15	2479.15
8/30/1989	2018.93	47	714	2779.93	18	381	399	2380.93	2380.93
8/31/1989	2032.13	47	714	2793.13	18	381	399	2394.13	2394.13
9/1/1989	2027.42	45	714	2786.42	18	381	399	2387.42	2387.42
9/2/1989	2035.78	43	714	2792.78	16.7	381	397.7	2395.08	2395.08
9/3/1989	2064.19	43	714	2821.19	19.4	381	400.4	2420.79	2420.79
9/4/1989	2072.1	40	714	2826.10	18	381	399	2427.10	2427.1
9/5/1989	2065.05	41	714	2820.05	18	350	368	2452.05	2452.05
9/6/1989	2075.2	41	714	2830.20	17	326	343	2487.20	2487.2
9/7/1989	2012.22	41	714	2767.22	17	300	317	2450.22	2450.22
9/8/1989	1992.52	39	714	2745.52	17	300	317	2428.52	2428.52
9/9/1989	1920.92	39	714	2673.92	16.7	300	316.7	2357.22	2357.22
9/10/1989	1876.3	39	714	2629.30	16.7	300	316.7	2312.60	2312.6
9/11/1989	1849.81	36	714	2599.81	16.7	300	316.7	2283.11	2283.11
9/12/1989	1838.16	36	714	2588.16	17	280	297	2291.16	2291.16
9/13/1989	1678.31	31	706	2415.31	16	280	296	2119.31	2119.31
9/14/1989	1583.2	29	706	2318.20	18	280	298	2020.20	2020.2
9/15/1989	1571.22	28	706	2305.22	18	280	298	2007.22	2007.22
9/16/1989	1579.79	28	706	2313.79	18	280	298	2015.79	2015.79
9/17/1989	1591.33	28	698	2317.33	18.2	307	325.2	1992.13	1992.13
9/18/1989	1583.58	28	698	2309.58	18.2	289	307.2	2002.38	2002.38
9/19/1989	1580.88	25	698	2303.88	20	252	272	2031.88	2031.88
9/20/1989	1515.6	25	698	2238.60	18	252	270	1968.60	1968.6
9/21/1989	1485.39	28	690	2203.39	18	225	243	1960.39	1960.39
9/22/1989	1479.4	28	690	2197.40	18	225	243	1954.40	1954.4
9/23/1989	1434.54	28	698	2160.54	18.4	240	258.4	1902.14	1902.14
9/24/1989	1399.9	33	690	2122.90	20	240	260	1862.90	1862.9
9/25/1989	1399.05	33	690	2122.05	20	240	260	1862.05	1862.05
9/26/1989	1397.27	31	690	2118.27	19.4	245	264.4	1853.87	1853.87
9/27/1989	1333.92	32	690	2055.92	19.4	244	263.4	1792.52	1792.52
9/28/1989	1309.26	32	690	2031.26	19.4	244	263.4	1767.86	1767.86

9/29/1989	1310.08	45	690	2045.08	19.4	244	263.4	1781.68	1781.68	
9/30/1989	1296.11	41	690	2027.11	18.4	252	270.4	1756.71	1756.71	
10/1/1989	1280.88	41	698	2019.88	18.2	252	270.2	1749.68	1749.68	
10/2/1989	1219.72	36	682	1937.72	20	215	235	1702.72	1702.72	
10/3/1989	1090.29	36	682	1808.29	19.4	220	239.4	1568.89	1568.89	
10/4/1989	1046.12	36	682	1764.12	18.4	182	200.4	1563.72	1563.72	
10/5/1989	1049.72	36	682	1767.72	18	182	200	1567.72	1567.72	
10/6/1989	986.49	36	682	1704.49	16	178	194	1510.49	1510.49	
10/7/1989	944.43	36	682	1662.43	16	178	194	1468.43	1468.43	
10/8/1989	925.23	33	667	1625.23	15.6	150	165.6	1459.63	1459.63	
10/9/1989	691.15	33	667	1391.15	15.6	150	165.6	1225.55	1225.55	
10/10/1989	0	30	913	943.00	14.2	142.8	157	786.00	786	
10/11/1989	0	29	922	951.00	14.2	142	156.2	794.80	794.8	
10/12/1989	0	28	939	967.00	5	100	105	862.00	862	
10/13/1989	0	31	984	1015.00	5	80	85	930.00	930	
10/14/1989	0	31	984	1015.00			0	1015.00	1015	
10/15/1989	0	31	984	1015.00			0	1015.00	1015	
10/16/1989	0	31	984	1015.00			0	1015.00	1015	
10/17/1989	0	31	984	1015.00			0	1015.00	1015	
10/18/1989	0	28	984	1012.00			0	1012.00	1012	
10/19/1989	0	28	984	1012.00			0	1012.00	1012	
10/20/1989	0	22	984	1006.00			0	1006.00	1006	
10/21/1989	0	22	984	1006.00			0	1006.00	1006	
10/22/1989	0	22	984	1006.00			0	1006.00	1006	
10/23/1989	0	27	975	1002.00			0	1002.00	1002	
10/24/1989	0	27	984	1011.00			0	1011.00	1011	
10/25/1989	0	22	984	1006.00			0	1006.00	1006	
10/26/1989	0	22	926	948.00			0	948.00	948	
10/27/1989	0	22	939	961.00			0	961.00	961	
10/28/1989	0	22	888	910.00			0	910.00	910	
10/29/1989	0	22	888	910.00			0	910.00	910	
10/30/1989	0	17	888	905.00			0	905.00	905	
10/31/1989	0	10	862	872.00			0	872.00	872	
11/1/1989	0	10	746	756.00			0	756.00	756	
11/2/1989	0	6	60	66.00			0	66.00		
11/3/1989	55.8	6	0	61.80			0	61.80		
11/4/1989	44.74	4	0	48.74			0	48.74		
11/5/1989	33.09	4	0	37.09			0	37.09		
11/6/1989	32.7	4	0	36.70			0	36.70		
11/7/1989	31.17	5	0	36.17			0	36.17		
11/8/1989	32.3	5	0	37.30			0	37.30		
11/9/1989	30.56	5	0	35.56			0	35.56		
11/10/1989	29.12	32	0	61.12			0	61.12		
11/11/1989	28.55	32	0	60.55			0	60.55		
11/12/1989	28.55	32	0	60.55			0	60.55		
11/13/1989	0	0	0	0.00			0	0.00		
11/14/1989	0	0	0	0.00			0	0.00		
11/15/1989	0	0	0	0.00			0	0.00		SOU end
11/16/1989	0.00	0	0.00				Max cfs =	3143.84	3000.00	
11/17/1989	0.00	0	0.00				Sum cfs =	458130.41	456232.16	
11/18/1989	0.00	0	0.00				conversion cfs to AF	1.9835	1.9835	
11/19/1989	0.00	0	0.00				Sum AF	908701.67	904936.49	
11/20/1989	0.00	0	0.00				round to 3 sig figs		905,000.00	
11/21/1989	0.00	0	0.00							
11/22/1989	0.00	0	0.00							
11/23/1989	0.00	0	0.00							
11/24/1989	0.00	0	0.00							
11/25/1989	0.00	0	0.00							
11/26/1989	0.00	0	0.00							
11/27/1989	0.00	0	0.00							
11/28/1989	0.00	0	0.00							
11/29/1989	0.00	0	0.00							
11/30/1989	0.00	0	0.00							

Bypass Limited



Edl, Michele

From: Olenichak, Tony
Sent: Thursday, May 26, 2011 11:06 AM
To: Edl, Michele
Subject: RE: Milner Gooding to North Side exchange?

Michele,

The short answer is.....There are actually two North Side Canal Company laterals that divert water from the Milner-Gooding Canal into the North Side Canal upstream from the power plant: The A-Lateral (MGAI) and the Cross-Cut (MXCI), which are added to the head of the North Side Canal (TCNI) to compute the total amount diverted by North Side Canal Company into the North Side Canal above the power plant.

Here's the longer more complicated answer.....When the North Side Canal was originally constructed, they dug through a few miles of porous lava rock at the head of the canal. When the Milner-Gooding Canal was dug alongside the North Side Canal several years later, they found that it was more efficient to carry water in the Milner-Gooding Canal for a few miles and dump it into the North Side Canal instead of trying to increase the amount diverted through the first couple miles of the North Side Canal through all the lava rock that had greater canal seepage. If you look at a map, the A-Lateral gauging station is located approximately 1.5 miles downstream from the head of the Milner-Gooding Canal in Twp 10S, Rge 21E, Sec 19 SW $\frac{1}{4}$ injecting water from the Milner-Gooding Canal into the North Side Canal. Approximately 1.5 miles further downstream on the Milner-Gooding Canal in Twp. 10S, Rge 20E, Sec 13 NE $\frac{1}{4}$ the Cross-Cut lateral also injects an additional amount of North Side Canal Company Water from the Milner-Gooding Canal into the North Side Canal.

To account for the total amount of water delivered to the North Side Canal Company water rights, Water District #1 adds all of the North Side Canal Company diversions together, which includes the head of the North Side Canal (TCNI), the A-Lateral (MGAI), the Cross-cut (MXCI), the PA-lateral (LPPI), the John Brune Pump, plus a computed loss of water in the first three miles of the Milner-Gooding Canal. The John Brune Pump is a North Side Canal Company diversion located on the Milner-Gooding Canal between the A-Lateral and Cross-cut. The PA-Lateral is a pump station on the Snake River upstream from the Milner-Gooding Canal. To account for the delivery loss to North Side Canal Company in the first three miles of the Milner-Gooding Canal, the amounts measured at the A-Lateral and Cross-cut canals are increased by 1.5% when added to the amount delivered at the head of North Side Canal.

Immediately, downstream of the Cross-Cut lateral on the Milner-Gooding Canal is the measuring station for American Falls Reservoir District #1 (AFRD2). All water passing this point on the Milner-Gooding Canal is charged to AFRD#2 (plus an additional 1.5% for upstream canal loss) and none of the water passing this point is charged to North Side Canal Company. I don't think there is any agreement between the canal company and reservoir district, but this is the way water has been delivered by Water District #1 since the Milner-Gooding Canal was constructed.

To keep things simple on the power plant license, I would suggest listing the diversion as the head of the North Side Canal, and perhaps including a remark saying that some additional North Side Canal Company water is conveyed to the North Side Canal above the power plant through the Cross-Cut and A-Laterals of the Milner-Gooding Canal.

Tony

From: Edl, Michele
Sent: Wednesday, May 25, 2011 9:55 AM
To: Olenichak, Tony
Subject: Milner Gooding to North Side exchange?

Tony,

I am working on the license for a power plant on the North Side canal system. The Bypass Limited powerplant is just downstream from the North Side Cross cut canal (Hydromet code = MXCI) which diverts water from the Milner Gooding Canal with water from the Twin Falls North Side Canal (TCNI).

The field examiner stated in his report that North Side Canal Company water is used in the plant. I intend to condition this power right so that power production would be a reuse of irrigation water already in the system rather than list all the rights in an unwieldy combined use condition.

Before I do, I need to be more certain of the water rights conveyed in these two canals.

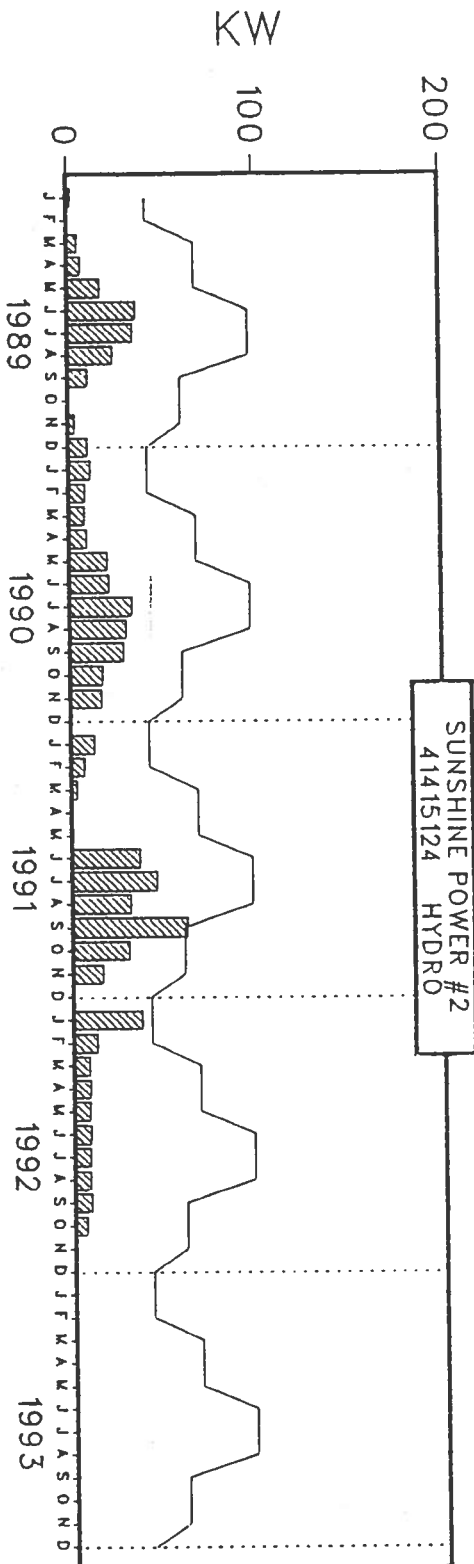
Can you help me understand how the Milner Gooding Canal has North Side Canal system water? Is there a longstanding exchange going on at the location of the Cross cut canal?

Thanks.

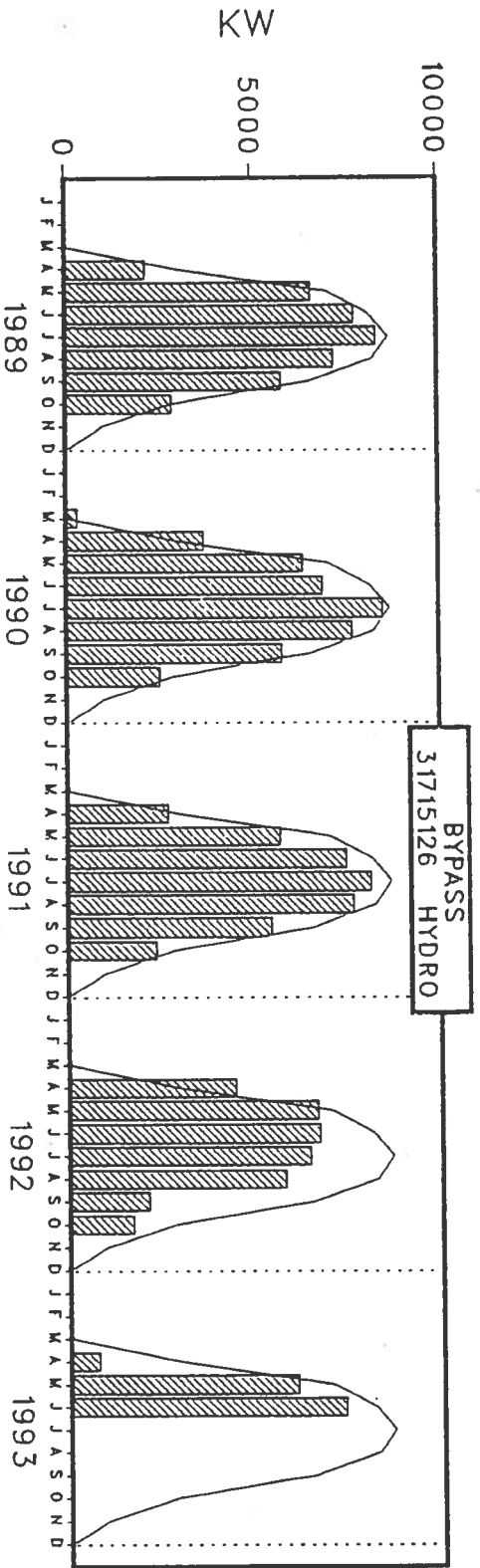
Michele Edl

287-4946

IDAHO POWER COMPANY Cogeneration and Small Power Production



Legend
 [Hatched Box] ACTUAL GENERATION
 [Solid Line] ESTIMATED GENERATION



IDAHO POWER COMPANY
COGENERATION AND SMALL POWER PRODUCTION
MONTHLY GENERATION BY PLANT (AVERAGE KW)

1989		JAN89	FEB89	MAR89	APR89	MAY89	JUN89	JUL89	AUG89	SEP89	OCT89	NOV89	DEC89
31515004	MUD CREEK/S&S	91	60	60	29	46	76	47	88	223	259	207	138
31416001	SHOSHONE	0	0	165	299	315	313	286	306	300	160	188	109
11766002	TAMARACK	5090	4364	4115	3671	4637	4507	4885	4729	4522	4476	3855	4571
31415017	NORTHSIDE CANAL Y-8	0	2	25	25	33	32	30	32	29	10	0	10
31415023	CURRY CATTLE CO.	0	0	0	46	194	292	97	212	151	53	0	0
11415003	SHINGLE CREEK	72	65	85	133	186	193	172	136	118	108	102	89
31615003	ROCK CREEK #1	797	576	1149	1536	1402	1691	1864	1957	1936	1968	1524	1041
31515009	MALAD RIVER	2	133	462	484	496	179	133	407	582	383	228	116
31516014	CLEAR SPRINGS TROUT	442	444	444	439	418	418	417	410	407	400	413	435
31416013	BOX CANYON	249	214	237	237	233	144	124	196	210	197	206	224
31615030	KOYLE	0	13	562	467	629	443	306	625	780	443	212	412
31615031	KASEL & WITHERSPOON	346	282	199	231	486	535	657	719	917	865	556	463
44767012	AFTON	4970	5015	3862	5202	5085	5179	5046	2800	5425	5562	1483	4828
31214058	BIRCH CREEK	45	44	44	38	36	41	44	49	53	56	51	46
31316010	STEVENSON #1	18	1	0	0	0	0	0	0	20	32	29	26
31415065	BLACK CANYON NO.3	0	0	0	0	105	97	104	85	82	66	77	0
31616081	CEDAR DRAW	295	267	212	661	885	879	590	1236	1434	1427	586	378
31316011	STEVENSON #2	0	0	0	2	0	0	0	0	0	30	31	35
31415094	JIM KNIGHT	0	0	0	80	58	290	247	259	263	77	58	0
31416020	CANYON SPRINGS	118	118	109	112	118	125	119	116	55	106	98	123
31615067	PIGEON COVE	586	457	423	490	1224	1395	1352	1465	1629	1549	861	775
31315021	SNAKE RIVER POTTERY	57	58	44	44	32	34	10	26	27	0	35	59
31316015	LEMOYNE	22	19	17	24	23	18	26	19	22	21	23	24
31416015	SNEDECAR RANCH	130	101	104	126	229	140	150	162	230	228	146	141
31715099	LOWLINE CANAL	-3	-6	0	1231	7193	7911	7507	8004	6532	4300	220	-4
31315093	HAILEY CSPP	21	20	20	19	20	16	20	19	19	18	18	17
31615105	LITTLE WOOD RIV. RES.	-5	-7	-8	1638	1716	2199	1707	269	-2	-2	-6	-6
31615056	LATERAL #10	1043	492	10	447	857	909	720	1561	1759	1661	1627	1321
11866066	B.C. EMMETT	9211	8525	7750	4271	6234	10904	9564	9595	3194	8165	9123	9467
31515103	SAGEBRUSH	-6	-5	-4	129	288	297	293	288	296	90	70	-4
31615117	WHITE WATER RANCH	67	95	122	73	37	47	36	39	44	97	114	129
31615108	MARCOS RANCHES	0	0	0	283	555	485	413	673	883	795	47	0
12616071	OWYHEE DAM	-21	-16	2575	1962	5058	4711	4806	4669	4660	4453	-46	-45
31315008	H.E.D. CO.	7	7	8	5	15	22	19	28	0	0	0	21
31515100	BRIIGGS CREEK	474	457	436	482	347	420	432	412	439	417	412	378
31615057	CRYSTAL SPRINGS	-31	-24	-11	638	1277	1444	787	1828	2295	2161	357	0
41455091	POCATELLO WASTE	159	197	169	188	154	155	139	152	149	149	136	170
31414111	MUD CREEK/WHITE	41	35	31	3	10	15	17	43	63	26	98	62
11615077	ELK CREEK	-11	-12	366	1225	1753	1748	641	-2	-1	51	133	-12
21415119	REYNOLDS IRRIGATION	182	175	184	132	60	200	202	167	247	228	219	238
31515107	LITTLEWOOD/ARKOOSH	68	65	324	455	730	770	621	509	429	299	195	226
31615098	SCHAFFNER	41	36	30	156	283	389	241	132	88	84	58	55
31415027	GEORON 2	-21	-12	345	507	772	787	815	878	648	115	173	225
31615121	TROUT CO.	139	133	139	97	50	52	50	74	107	116	144	149
41415124	FAULKNER RANCH	26	19	136	354	631	647	601	672	560	269	166	148
31615125	SUNSHINE POWER #2	2	1	6	8	18	37	35	24	10	0	3	0
31715126	LOWLINE #2	-22	-18	-13	278	2431	2534	2471	2522	1697	167	56	10
31615106	BYPASS	-35	-36	-28	2158	6572	7744	8351	7192	5793	2841	-22	-31
	DIETRICH DROP	-6	-7	-6	259	3866	4641	4078	4444	3532	1028	-4	-7

ORIGINAL



Energy in tune with you.

CHI MOUNTAIN STATES OPERATIONS, INC.
A SUBSIDIARY OF ENEL NORTH AMERICA, INC.

Enel North America, Inc.

One Tech Drive, Suite 220, Andover, MA 01810
Tel. 978 681 1900 Fax 978 681 7727

July 6, 2004

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
Dockets Room, Room 1A, East
888 First Street, N.E.
Washington, D.C. 20426

FILED
OFFICE OF THE
SECRETARY
2004 JUL -7 P 12:47
FEDERAL ENERGY
REGULATORY COMMISSION

Re: Bypass Hydroelectric Project (FERC No. 9070-ID);
Change of Address Notification.

Dear Secretary Salas:

Please take notice that effective July 1, 2004 Enel North America, Inc. acquired all of the ownership interests in Bypass Ltd., Exemptee for the Bypass Hydroelectric Project (FERC No. 9070-ID). The project is now operated and managed by ENA's subsidiary CHI Mountain States Operations, Inc. Therefore, we wish to notify the Commission of the following changes to the contact information for the Bypass Project.

The exact name, title, address and telephone number of the corporate vice president responsible for the project as Exemptee is:

Victor A. Engel, P.E.
Vice President, Engineering & Regulatory Affairs
CHI Mountain States Operations, Inc.
One Tech Drive, Suite 220
Andover, MA 01810
Tel: (978) 681-1900 ext. 811
Fax: (978) 681-7727
email: victor.engel@northamerica.enel.it

The exact name, title, address and telephone number of the authorized representative responsible for day-to-day project activities is:

Kevin M. Webb
Environmental Affairs Coordinator
CHI Mountain States Operations, Inc.
One Tech Drive, Suite 220
Andover, MA 01810
Tel: (978) 681-1900 ext. 809
Fax: (978) 681-7727
email: kevin.webb@northamerica.enel.it

Bypass Project (FERC No. 9070-ID)
Change of Address Notification

July 6, 2004
Page 2

The local Operations Supervisor for the Project is:

Dale Higbee
CHI Mountain States Operations, Inc.
2283 Wright Avenue, Suite D
Twin Falls, ID 83301
Tel: (208) 734-0551
Fax: (208) 734-0553

Please do not hesitate to contact me at the telephone number given above if you have any questions concerning this information.

Sincerely,
CHI Mountain States Operations, Inc.



Kevin M. Webb
Environmental Affairs Coordinator

cc: H. Hall, FERC-PRO
V. Engel, CHIMSO
D. Higbee, CHIMSO

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UNITED STATES OF AMERICA 62,254
FEDERAL ENERGY REGULATORY COMMISSION

Bypass Ltd.

Project No. 9070-001
Idaho

ORDER AMENDING CONDUIT EXEMPTION
(Issued June 17, 1991)

The Bypass Hydroelectric Project has a total installed capacity of 9,999-kw, which is greater than the authorized capacity of 9,900-kw in the exemption. 1/ The increase in the generating capacity would not result in any additional adverse environmental effects other than those identified during processing of the original application. Therefore, the exemption will be amended to show the project's total authorized nameplate capacity to be 9,999-kw.

The Director orders:

(A) The total authorized installed capacity of the Bypass Hydroelectric Project, FERC No. 9070, is 9,999-kw.

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. §385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

1/ The order granting exemption from licensing was issued on September 26, 1985, 32 FERC ¶ 62,661.