

Pump Run 11/15

Rev 8, 9/23/15

ATTACHMENT 1 Pump Coordinator Roles and Responsibilities

Date / Time

EVENT LOG BOOK

Page 1 of _

11/16/0500 Inspected L-31 North & South For wildlife
and trash.

10603 Reached 504 acre Feet. started L-31 North pumps

10608 Started L-31 South Pumps.

10615 Contacted SFWM D & made all necessary contacts.

10700 North Station Pumped = 3,661,965

10700 South Station Pumped = 3,482,726

10800 North Station Pumped = 3,779,670

10800 South Station Pumped = 4,028,790

10900 North Station Pumped = 3,725,190

10900 South Station Pumped = 4,000,020

10907 Took South Station Down to 56Hz From Hc.

11000 North Station Pumped = 3,726,510

11000 South Station Pumped = 3,949,440

11100 North Station Pumped = 3,746,160

11100 South Station Pumped = 3,921,660

11155 North Station Pumped = 3,453,917

11140 South Station Pumped = 2,596,300

11200 Total gallons pumped by North Station = 22,093,412

11/16/1200 Total gallons pumped by South Station = 21,978,936

11/16

Brian Wenzel

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Carmel W. S.

Date:

10/1/15

Approved:

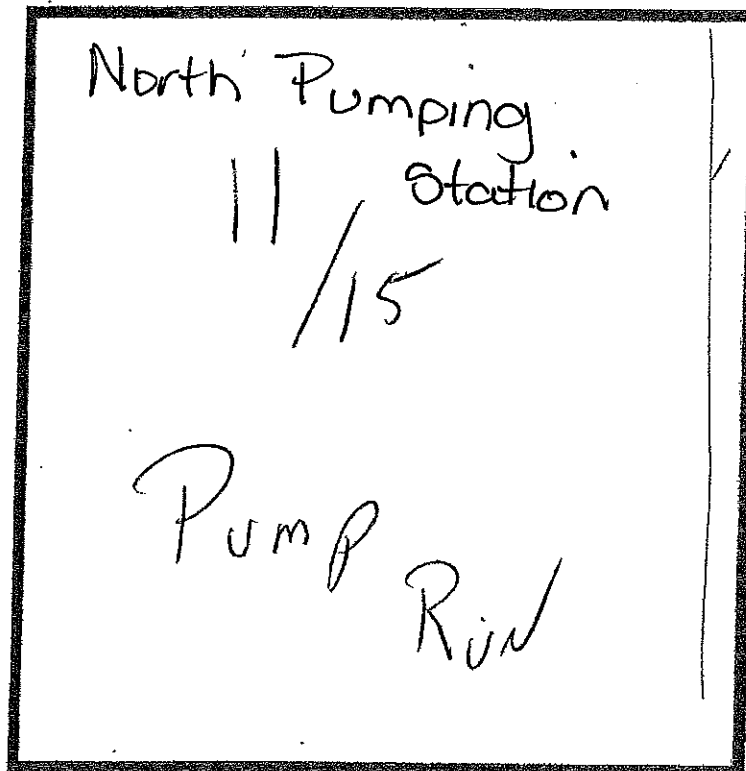
[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps



INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Bryan Ingram

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET									
Month <u>11</u> Day <u>16</u> Year <u>2015</u>									
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00	Flow: <u>22276</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.1</u>	<u>.9</u>	<u>✓</u>
6:00	Total: <u>84721780</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
7:00	Flow: <u>21814</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.2</u>	<u>.9</u>	<u>✓</u>
7:00	Total: <u>85913075</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
8:00	Flow: <u>19775</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.4</u>	<u>.9</u>	<u>✓</u>
8:00	Total: <u>87194882</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
9:00	Flow: <u>19998</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.2</u>	<u>.9</u>	<u>✓</u>
9:00	Total: <u>88399414</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
10:00	Flow: <u>19819</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>.0</u>	<u>.9</u>	<u>✓</u>
10:00	Total: <u>89519584</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
11:00	Flow: <u>20653</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>+.1</u>	<u>.9</u>	<u>✓</u>
11:00	Total: <u>90866356</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						
11:55	Flow: <u>20544</u>	Flow: <u>ERROR</u>	Flow: <u>ERROR</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>+.2</u>	<u>.9</u>	<u>✓</u>
11:55	Total: <u>91920865</u>	Total: <u>ERROR</u>	Total: <u>ERROR</u>						

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
13:00	Flow:	Flow:	Flow:						
13:00	Total:	Total:	Total:						
14:00	Flow:	Flow:	Flow:						
14:00	Total:	Total:	Total:						
15:00	Flow:	Flow:	Flow:						
15:00	Total:	Total:	Total:						
16:00	Flow:	Flow:	Flow:						
16:00	Total:	Total:	Total:						
17:00	Flow:	Flow:	Flow:						
17:00	Total:	Total:	Total:						
18:00	Flow:	Flow:	Flow:						
18:00	Total:	Total:	Total:						
19:00	Flow:	Flow:	Flow:						
19:00	Total:	Total:	Total:						
20:00	Flow:	Flow:	Flow:						
20:00	Total:	Total:	Total:						
21:00	Flow:	Flow:	Flow:						
21:00	Total:	Total:	Total:						
22:00	Flow:	Flow:	Flow:						
22:00	Total:	Total:	Total:						
23:00	Flow:	Flow:	Flow:						
23:00	Total:	Total:	Total:						
24:00	Flow:	Flow:	Flow:						
24:00	Total:	Total:	Total:						

PUMP
OPERATOR _____

VERIFIED BY PUMP
COORDINATOR _____

Date: _____

ERIC CASH

11/16/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Patricia Ward

Date:

11/11/15

Approved:

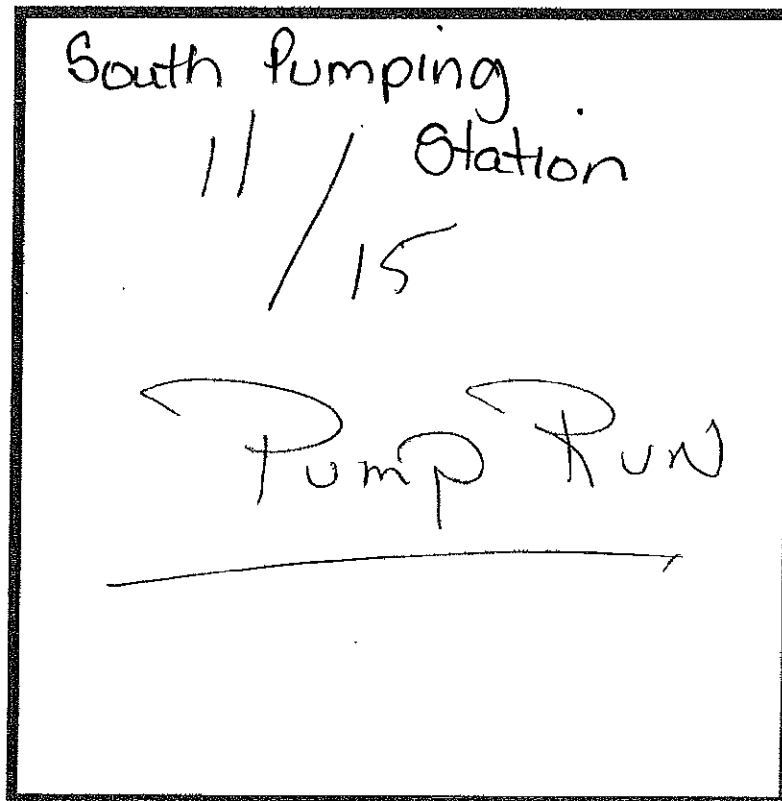
Patricia Ward

Date:

12/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps



INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
		Month <u>11</u>	Day <u>16</u>	Year <u>2015</u>		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00 6:08	Flow: 34931	Flow: 32033	598	598	.8	✓
6:00 6:08	Total: 78095135	Total: 6544550				
7:00	Flow: 35312	Flow: 31675	598	598	.8	✓
7:00	Total: 79406029	Total: 6045706				
8:00	Flow: 35369	Flow: 31937	598	598	.8	✓
8:00	Total: 810160079	Total: 810003551				
9:00	Flow: 35183	Flow: 30845	598	598	.8	✓
9:00	Total: 41027376	Total: 11834820				
10:00	Flow: 34515	Flow: 31105	598	598	.8	✓
10:00	Total: 46112553	Total: 13663861				
11:00	Flow: 34527	Flow: 30575	598	598	.8	✓
11:00	Total: 486174635	Total: 5532723				
12:00	Flow: 34497	Flow: 30214	598	598	.8	✓
12:00	Total: 89500066	Total: 16662579				

PUMP OPERATOR

Eric Vasek
11-16-15

Page 23 of 24

VERIFIED BY PUMP
COORDINATOR*David [Signature]*
11-16-15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET			Month	Day	Year		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat	
13:00	Flow:	Flow:					
13:00	Total:	Total:					
14:00	Flow:	Flow:					
14:00	Total:	Total:					
15:00	Flow:	Flow:					
15:00	Total:	Total:					
16:00	Flow:	Flow:					
16:00	Total:	Total:					
17:00	Flow:	Flow:					
17:00	Total:	Total:					
18:00	Flow:	Flow:					
18:00	Total:	Total:					
19:00	Flow:	Flow:					
19:00	Total:	Total:					
20:00	Flow:	Flow:					
20:00	Total:	Total:					
21:00	Flow:	Flow:					
21:00	Total:	Total:					
22:00	Flow:	Flow:					
22:00	Total:	Total:					
23:00	Flow:	Flow:					
23:00	Total:	Total:					
24:00	Flow:	Flow:					
24:00	Total:	Total:					

PUMP OPERATOR _____

Date: _____

VERIFIED BY PUMP
COORDINATOR _____

Date: _____

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 1

Pump Coordinator Roles and Responsibilities

11/16 Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/17/ | Checked all pumps & For Wildlife

11/17/ 6:46 Started North Pumps
16:51 Started South Pumps11/17/ 8:00 North Station Pumped = 4,714,614
18:00 South Station Pumped = 4,467,232

19:00 NORTH STATION PUMPED = 3,718,170

19:00 SOUTH STATION PUMPED = 3,903,870

110:00 North station Pumped = 3,753,570

160:00 South station Pumped = 3,937,320

111:00 North station Pumped = 3,789,450

111:00 South station Pumped = 3,951,090

111:55 North station Pumped = 3,471,875

111:48 South station Pumped = 3,156,192

112:00 TOTAL GALLONS PUMPED BY NORTH STATION = 19,447,679

112:00 TOTAL GALLONS PUMPED BY SOUTH STATION = 19,415,704

Brend
11-17-15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Cathy W. J.

Date:

10/1/15

Approved:

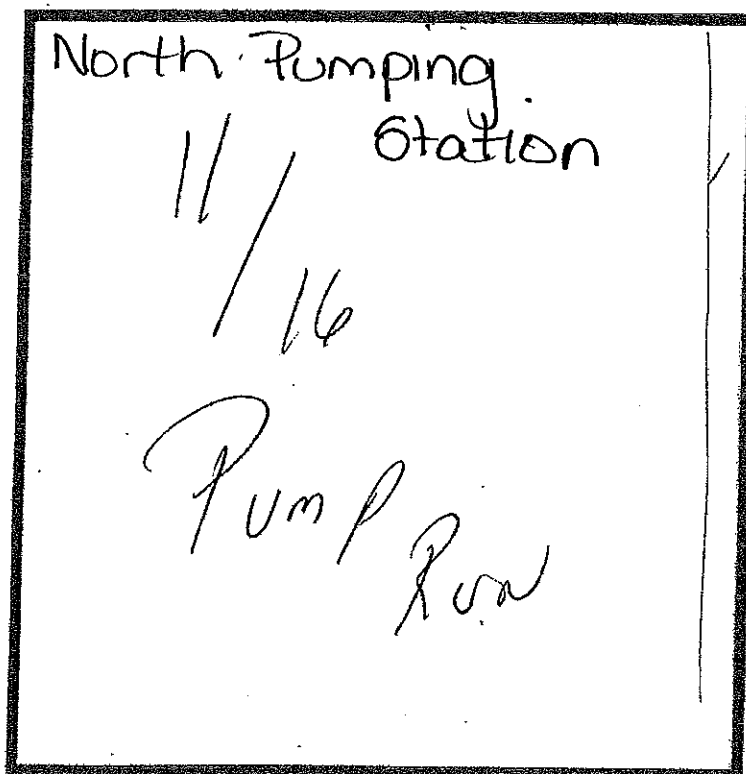
[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps



INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

Bryan Ingram

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00 6:43	Flow: 23175	Flow: ERROR	Flow: 20899	576	576	576	-12	.9	✓
6:00	Total: 91962858	Total: ERROR	Total: 7639728						
7:00	Flow: ⚡	Flow: ⚡	Flow: ⚡						
7:00	Total: ⚡	Total: ⚡	Total: ⚡						
8:00	Flow: 19847	Flow: ERROR	Flow: 20212	576	576	576	-4	.9	✓
8:00	Total: 93386697	Total: ERROR	Total: 9057910						
9:00	Flow: 19692	Flow: ERROR	Flow: 20265	576	576	576	-4	.9	✓
9:00	Total: 94582448	Total: ERROR	Total: 10271092						
10:00	Flow: 21027	Flow: ERROR	Flow: 20448	576	576	576	-12	.9	✓
10:00	Total: 95799985	Total: ERROR	Total: 11462613						
11:00	Flow: 20888	Flow: ERROR	Flow: 20534	576	576	576	0	.9	✓
11:00	Total: 97077957	Total: ERROR	Total: 12764735						
11:58	Flow: 20962	Flow: ERROR	Flow: 20692	576	576	576	+1	.9	✓
12:00	Total: 98177095	Total: ERROR	Total: 13798679						

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

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NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
13:00	Flow:	Flow:	Flow:						
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14:00	Flow:	Flow:	Flow:						
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15:00	Flow:	Flow:	Flow:						
15:00	Total:	Total:	Total:						
16:00	Flow:	Flow:	Flow:						
16:00	Total:	Total:	Total:						
17:00	Flow:	Flow:	Flow:						
17:00	Total:	Total:	Total:						
18:00	Flow:	Flow:	Flow:						
18:00	Total:	Total:	Total:						
19:00	Flow:	Flow:	Flow:						
19:00	Total:	Total:	Total:						
20:00	Flow:	Flow:	Flow:						
20:00	Total:	Total:	Total:						
21:00	Flow:	Flow:	Flow:						
21:00	Total:	Total:	Total:						
22:00	Flow:	Flow:	Flow:						
22:00	Total:	Total:	Total:						
23:00	Flow:	Flow:	Flow:						
23:00	Total:	Total:	Total:						
24:00	Flow:	Flow:	Flow:						
24:00	Total:	Total:	Total:						

PUMP
OPERATOR _____

Date: _____

VERIFIED BY PUMP
COORDINATOR _____

Date: _____

ELSCCASH

11/17/15 Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Patricia Ward

Date:

10/1/15

Approved:

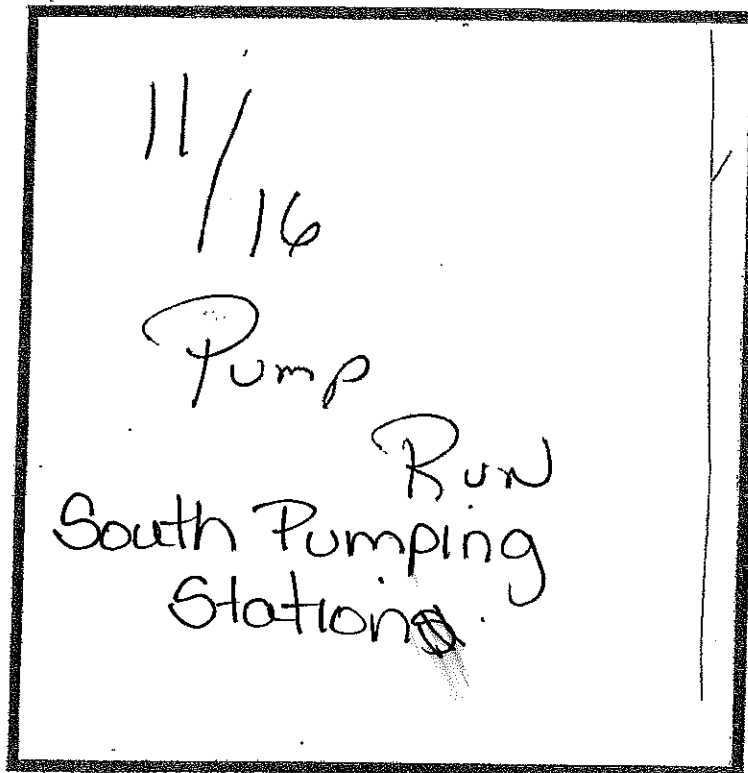
Mark Smith

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps



INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET Month <u>11</u> Day <u>17</u> Year <u>2015</u>						
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00	Flow: 33559	Flow: 31149	588	588	.8	✓
6:00	Total: 891042412	Total: 16603119				
7:00	Flow:	Flow:				
7:00	Total:	Total:				
8:00	Flow: 34520	Flow: 30257				
8:00	Total: 91957544	Total: 18918172	588	588	.8	✓
9:00	Flow: 34415	Flow: 30937				
9:00	Total: 93996244	Total: 20716648	588	588	.8	✓
10:00	Flow: 34426	Flow: 31466				
10:00	Total: 96068246	Total: 22540511	588	588	.8	✓
11:00	Flow: 34345	Flow: 31101				
11:00	Total: 98131613	Total: 23424596	588	588	.8	✓
12:00	Flow: 34231	Flow: 31101				
12:00	Total: 99667014	Total: 23489121	588	588	.8	✓

PUMP OPERATOR ERSCCASH

Date 11/17/15

VERIFIED BY PUMP
COORDINATOR

Bud [Signature] 11/17/15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
Time	North Pump (167944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
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23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24:00	Total:	Total:				

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 1

Pump Coordinator Roles and Responsibilities

11/17
Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/18/1900 Checked All equipment for operational status, checked to make sure Wildlife clear of the Area.

11/18/1918 Started North Pumps

11/18/1923 Started South Pumps.

11/18/1000 North Station Pumped 2,657,760

11/18/1000 South Station Pumped 2,392,235

11/18/1100 North Station Pumped 3,794,250

11/18/1100 South Station Pumped 3,903,150

11/18/1155 North Station Pumped 3,553,192

11/18/1150 South Station Pumped 3,242,475

11/18/1200 Total Gallons Pumped by North Station = 10,005,202

11/18/1200 Total Gallons Pumped by South Station = 9,537,860

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Bryan Ingram

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET									
Month <u>11</u> Day <u>18</u> Year <u>2015</u>									
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00	Flow:	Flow:	Flow:						
6:00	Total:	Total:	Total:						
7:00	Flow:	Flow:	Flow:						
7:00	Total:	Total:	Total:						
8:00	Flow:	Flow:	Flow:						
8:00	Total:	Total:	Total:						
9:00	Flow: <u>22969</u>	Flow: <u>20550</u>	Flow: <u>20550</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.4</u>	<u>.9</u>	<u>✓</u>
9:00	Total: <u>98121993</u>	Total: <u>13744057</u>	Total: <u>13744057</u>						
10:00	Flow: <u>20717</u>	Flow: <u>20122</u>	Flow: <u>20122</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.4</u>	<u>.9</u>	<u>✓</u>
10:00	Total: <u>98929663</u>	Total: <u>14543960</u>	Total: <u>14543960</u>						
11:00	Flow: <u>22964</u>	Flow: <u>20472</u>	Flow: <u>20472</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.3</u>	<u>.9</u>	<u>✓</u>
11:00	Total: <u>172902</u>	Total: <u>15741217</u>	Total: <u>15741217</u>						
11:53	Flow: <u>23081</u>	Flow: <u>20490</u>	Flow: <u>20490</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-.1</u>	<u>.9</u>	<u>✓</u>
	Total: <u>1392168</u>	Total: <u>16816610</u>	Total: <u>16816610</u>	<u>60Hz</u>	<u>60Hz</u>	<u>60Hz</u>			

PUMP OPERATOR

Date

11/18/2015

VERIFIED BY PUMP

COORDINATOR

Date

11/18/15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET										
				Month	Day	Year				
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat	
13:00	Flow:	Flow:	Flow:							
13:00	Total:	Total:	Total:							
14:00	Flow:	Flow:	Flow:							
14:00	Total:	Total:	Total:							
15:00	Flow:	Flow:	Flow:							
15:00	Total:	Total:	Total:							
16:00	Flow:	Flow:	Flow:							
16:00	Total:	Total:	Total:							
17:00	Flow:	Flow:	Flow:							
17:00	Total:	Total:	Total:							
18:00	Flow:	Flow:	Flow:							
18:00	Total:	Total:	Total:							
19:00	Flow:	Flow:	Flow:							
19:00	Total:	Total:	Total:							
20:00	Flow:	Flow:	Flow:							
20:00	Total:	Total:	Total:							
21:00	Flow:	Flow:	Flow:							
21:00	Total:	Total:	Total:							
22:00	Flow:	Flow:	Flow:							
22:00	Total:	Total:	Total:							
23:00	Flow:	Flow:	Flow:							
23:00	Total:	Total:	Total:							
24:00	Flow:	Flow:	Flow:							
24:00	Total:	Total:	Total:							

PUMP
OPERATOR

Date:

VERIFIED BY PUMP
COORDINATOR

Date:

11/17 Pump Run
Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Cathy Ward

Date:

10/1/15

Approved:

[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

South Pumping Station
11 / 17
Pump Run
9,537,860 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

11/17 Pump Run

SOUTH PUMP STATION HOURLY LOG SHEET						
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00	Flow:	Flow:				
6:00	Total:	Total:				
7:00	Flow:	Flow:				
7:00	Total:	Total:				
8:00	Flow:	Flow:				
8:00	Total:	Total:				
9:00 9:23	Flow: 33.375	Flow: 30635	588	588	.8	✓
9:00 9:23	Total: 99819895	Total: 23527909				
10:00	Flow: 33.983	Flow: 31317	588	588	.8	✓
10:00	Total: 413522	Total: 24570537				
11:00	Flow: 34096	Flow: 30760	588	588	.8	✓
11:00	Total: 2961660	Total: 25237345				
12:00 11:50	Flow: 34083	Flow: Error	588	588	.8	✓
12:00 11:50	Total: 4520219	Total:				

PUMP OPERATOR

Brad Runga

Date:

11-18-15

VERIFIED BY PUMP
COORDINATORBrad Runga
11-18-15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
		Month	Day	Year		
Time	North Pump (107944)	South Pump (107939)	RPM No Pump	RPM So Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
16:00	Total:	Total:				
17:00	Flow:	Flow:				
17:00	Total:	Total:				
18:00	Flow:	Flow:				
18:00	Total:	Total:				
19:00	Flow:	Flow:				
19:00	Total:	Total:				
20:00	Flow:	Flow:				
20:00	Total:	Total:				
21:00	Flow:	Flow:				
21:00	Total:	Total:				
22:00	Flow:	Flow:				
22:00	Total:	Total:				
23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24:00	Total:	Total:				

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 1

Pump Coordinator Roles and Responsibilities

11/18
Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/19/0700 Checked out all equipment all operational -
checked For Wildlife in Area - None Present

11/19/0736 Started North Pumps

11/19/0741 Started South Pumps

11/19/0900 North Station Pumped = 5,552,988

11/19/0900 South Station Pumped = 5,011,799

11/19/0910 Raised Hz From 56 to 57 Hz At South Station

11/19/1000 North Station Pumped = 3,924,600

11/19/1000 South Station Pumped = 3,895,440

11/19/1010 Raised Hz From 57 to 58 Hz At South Station

11/19/1100 North Station Pumped = 3,875,130

11/19/1100 South Station Pumped = 4,006,680

11/19/1155 North Station Pumped = 3,524,042

11/19/1150 South Station Pumped = 3,378,850

11/19/1200 Total Gallons Pumped by North Station = 16,876,760

11/19/1200 Total Gallons Pumped by South Station = 16,292,769

Brad Ponagalek
Brad Ponagalek
11/19/15

ERIC CASH

11/19/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Calvin W. S.

Date:

10/1/15

Approved:

[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

South Pumping
11/18 Station
Pump
Run
16,292,769 Gallons

ERSC CASH

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
Month <u>11</u> Day <u>19</u> Year <u>2015</u>						
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00	Flow:	Flow:				
6:00	Total:	Total:				
7:00 7:42	Flow: 33502	Flow: 201517	586	586	.75	✓
7:00 7:42	Total: 4767355	Total: 25397485				
8:00	Flow: /	Flow: /				
8:00	Total: /	Total: /				
9:00	Flow: 34332	Flow: 29450	586	586	.75	✓
9:00	Total: 7346739	Total: 2747994				
10:00	Flow: 34919	Flow: 31147	586	586	.75	✓
10:00	Total: 9460033	Total: 29403475				
11:00	Flow: 35585	Flow: 31905	609	609	.75	✓
11:00	Total: 11570001	Total: 3130157				
12:00	Flow: 35759	Flow: 31102	609	609	.75	✓
12:00	Total: 13768284	Total: 31536061			.75	

PUMP OPERATOR ERSC CASH

Date:

11/19/15

VERIFIED BY PUMP
COORDINATOR

[Signature] 11-19-15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
		Month	Day	Year		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
16:00	Total:	Total:				
17:00	Flow:	Flow:				
17:00	Total:	Total:				
18:00	Flow:	Flow:				
18:00	Total:	Total:				
19:00	Flow:	Flow:				
19:00	Total:	Total:				
20:00	Flow:	Flow:				
20:00	Total:	Total:				
21:00	Flow:	Flow:				
21:00	Total:	Total:				
22:00	Flow:	Flow:				
22:00	Total:	Total:				
23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24: 00	Total:	Total:				

PUMP OPERATOR _____

Date: _____

VERIFIED BY PUMP
COORDINATOR _____

Date: _____

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Cathy Ward

Date:

10/1/15

Approved:

[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

11/18
Pump Run
North Pumping
Station
16,876,760 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET									
			Month	Day	Year				
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00	Flow:	Flow:	Flow:						
6:00	Total:	Total:	Total:						
7:00 7:36	Flow: 23193	Flow: 21870	Flow: 21520	576	576	576	-0.2	0.9	✓
7:36	Total: 1502999	Total: 39095450	Total: 16884760						
8:00	Flow: Skipped 8:00 Reading Went to 900	Flow: Total:	Flow: Total:						
8:00	Total:	Total:	Total:						
9:00	Flow: 22159	Flow: ERROR	Flow: 21602	576	576	576	-0.4	0.9	✓
9:00	Total: 3201796	Total:	Total: 18399615						
10:00	Flow: 22229	Flow: ERROR	Flow: 21090	576	576	576	-0.4	0.9	✓
10:00	Total: 4472760	Total:	Total: 19515657						
11:00	Flow: 21668	Flow: ERROR	Flow: 20444	576	576	576	-0.3	0.9	✓
11:00	Total: 5865224	Total:	Total: 20745434						
12:00 11:55	Flow: 21933	Flow: ERROR	Flow: 20362	576	576	576		0.9	✓
12:00 11:50	Total: 7059662	Total:	Total: 21885851						

PUMP OPERATOR

Date

VERIFIED BY PUMP

COORDINATOR

Date

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year				
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat	
13:00	Flow:	Flow:	Flow:							
13:00	Total:	Total:	Total:							
14:00	Flow:	Flow:	Flow:							
14:00	Total:	Total:	Total:							
15:00	Flow:	Flow:	Flow:							
15:00	Total:	Total:	Total:							
16:00	Flow:	Flow:	Flow:							
16:00	Total:	Total:	Total:							
17:00	Flow:	Flow:	Flow:							
17:00	Total:	Total:	Total:							
18:00	Flow:	Flow:	Flow:							
18:00	Total:	Total:	Total:							
19:00	Flow:	Flow:	Flow:							
19:00	Total:	Total:	Total:							
20:00	Flow:	Flow:	Flow:							
20:00	Total:	Total:	Total:							
21:00	Flow:	Flow:	Flow:							
21:00	Total:	Total:	Total:							
22:00	Flow:	Flow:	Flow:							
22:00	Total:	Total:	Total:							
23:00	Flow:	Flow:	Flow:							
23:00	Total:	Total:	Total:							
24:00	Flow:	Flow:	Flow:							
24:00	Total:	Total:	Total:							

PUMP
OPERATOR _____

Date: _____

VERIFIED BY PUMP
COORDINATOR _____

Date: _____

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 1

Pump Coordinator Roles and Responsibilities

11/19

Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/20/7:30	Checked out All equipment - (All operational)
	Checked For Wildlife in the Area - None Present
11/20/8:01	Started North Pumps =
11/20/8:06	Started South Pumps =
11/20/9:00	North Station Pumped = 3,789,687
11/20/9:00	South Station Pumped = 3,556,899
11/20/10:00	North Station Pumped = 3,768,997
11/20/10:00	South Station Pumped = 3,982,200
11/20/11:00	North Station Pumped = 3,770,107
11/20/11:00	South Station Pumped = 3,998,490
11/20/11:55	North Station Pumped = 3,559,450
11/20/11:50	South Station Pumped = 3,298,950
11/20/	Total Gallons Pumped by North Station = 14,888,241
11/20/	Total Gallons Pumped by South Station = 14,836,539

Brad Ponagalek
 Brad Ponagalek
 11/20/15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author: *Calvin Ward* Date: *10/1/15*

Approved: *Paul Smith* Date: *10/1/15*

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

11/19
Pump
Run
North Pumping Station
3,559,450 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Bryan Ingram

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET

Month 11 Day 20 Year 2015

Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00	Flow:	Flow:	Flow:						
6:00	Total:	Total:	Total:						
7:00	Flow:	Flow:	Flow:						
7:00	Total:	Total:	Total:						
8:00	Flow: <u>22890</u>	Flow: <u>21532</u>	Flow: <u>20485</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-1</u>	<u>.9</u>	<u>✓</u>
8:00	Total: <u>7114953</u>	Total: <u>39165387</u>	Total: <u>24929160</u>						
9:00	Flow: <u>22381</u>	Flow: <u>ERROR</u>	Flow: <u>19644</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-1.4</u>	<u>.9</u>	<u>✓</u>
9:00	Total: <u>8349118</u>	Total: <u>ERROR</u>	Total: <u>23043887</u>						
10:00	Flow: <u>21547</u>	Flow: <u>ERROR</u>	Flow: <u>19705</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-1.4</u>	<u>.9</u>	<u>✓</u>
10:00	Total: <u>9682919</u>	Total: <u>ERROR</u>	Total: <u>24237626</u>						
11:00	Flow: <u>22115</u>	Flow: <u>ERROR</u>	Flow: <u>19947</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-1.4</u>	<u>.9</u>	<u>✓</u>
11:00	Total: <u>10996573</u>	Total: <u>ERROR</u>	Total: <u>25437467</u>						
11:55	Flow: <u>21286</u>	Flow: <u>ERROR</u>	Flow: <u>19523</u>	<u>576</u>	<u>576</u>	<u>576</u>	<u>-1.4</u>	<u>.9</u>	<u>✓</u>
11:55	Total: <u>12139533</u>	Total: <u>ERROR</u>	Total: <u>26479064</u>	<u>60Hz</u>	<u>60Hz</u>	<u>60Hz</u>			

PUMP OPERATOR

Date

Bryan Ingram
11/20/2015

VERIFIED BY PUMP

COORDINATOR

Date

Bryan Ingram
11/20/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
13:00	Flow:	Flow:	Flow:						
13:00	Total:	Total:	Total:						
14:00	Flow:	Flow:	Flow:						
14:00	Total:	Total:	Total:						
15:00	Flow:	Flow:	Flow:						
15:00	Total:	Total:	Total:						
16:00	Flow:	Flow:	Flow:						
16:00	Total:	Total:	Total:						
17:00	Flow:	Flow:	Flow:						
17:00	Total:	Total:	Total:						
18:00	Flow:	Flow:	Flow:						
18:00	Total:	Total:	Total:						
19:00	Flow:	Flow:	Flow:						
19:00	Total:	Total:	Total:						
20:00	Flow:	Flow:	Flow:						
20:00	Total:	Total:	Total:						
21:00	Flow:	Flow:	Flow:						
21:00	Total:	Total:	Total:						
22:00	Flow:	Flow:	Flow:						
22:00	Total:	Total:	Total:						
23:00	Flow:	Flow:	Flow:						
23:00	Total:	Total:	Total:						
24:00	Flow:	Flow:	Flow:						
24:00	Total:	Total:	Total:						

PUMP
OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

ELJC CASH
11/20/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Carmel W. S.

Date:

10/1/15

Approved:

[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

11/19
Pump Run
South Pumping Station
3,298,950 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET Month <u>11</u> Day <u>20</u> Year <u>2015</u>						
Time	North Pump (107944)	South Pump (107939)	RPM No Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00	Flow:	Flow:				
6:00	Total:	Total:				
7:00	Flow:	Flow:				
7:00	Total:	Total:				
8:00 8:00	Flow: <u>35677</u>	Flow: <u>309823</u>	<u>5918</u>	<u>5918</u>	<u>.75</u>	☒
8:00 8:00	Total: <u>13425837</u>	Total: <u>31540954</u>				
9:00	Flow: <u>35277</u>	Flow: <u>29160</u>	<u>5918</u>	<u>5918</u>	<u>.75</u>	☒
9:00	Total: <u>151809125</u>	Total: <u>33014159</u>				
10:00	Flow: <u>35300</u>	Flow: <u>32203</u>	<u>5918</u>	<u>5918</u>	<u>.75</u>	☒
10:00	Total: <u>17346805</u>	Total: <u>34738411</u>				
11:00	Flow: <u>35820</u>	Flow: <u>ERROR</u>	<u>5918</u>	<u>5918</u>	<u>.75</u>	☒
11:00	Total: <u>194509850</u>	Total: <u>340188151</u>				
12:00	Flow: <u>35262</u>	Flow: <u>30916</u>	<u>5918</u>	<u>5918</u>	<u>.75</u>	☒
12:00	Total: <u>21624676</u>	Total: <u>35500130</u>				

PUMP OPERATOR ELIX CASIA

Date 11-20-15

VERIFIED BY PUMP
COORDINATOR [Signature]

11-20-15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
		Month	Day	Year		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
16:00	Total:	Total:				
17:00	Flow:	Flow:				
17:00	Total:	Total:				
18:00	Flow:	Flow:				
18:00	Total:	Total:				
19:00	Flow:	Flow:				
19:00	Total:	Total:				
20:00	Flow:	Flow:				
20:00	Total:	Total:				
21:00	Flow:	Flow:				
21:00	Total:	Total:				
22:00	Flow:	Flow:				
22:00	Total:	Total:				
23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24: 00	Total:	Total:				

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

Rev 8, 10/01/2015

ATTACHMENT 1

Date / Time

Page _ of _

Page 14 of 24

ERSCCASH 11/21/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Calvin Ward

Date:

10/1/15

Approved:

Paul M. [Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

Pump Run 11/20/15
Total L-31 North Pumped /
7,325,320 gals
Total L-31 South Pumped
6,781,483 gals
South Pumping Station

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET			Month	Day	Year		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat	
00:00	Flow:	Flow:					
00:00	Total:	Total:					
1:00	Flow:	Flow:					
1:00	Total:	Total:					
2:00	Flow:	Flow:					
2:00	Total:	Total:					
3:00	Flow:	Flow:					
3:00	Total:	Total:					
4:00	Flow:	Flow:					
4:00	Total:	Total:					
5:00	Flow:	Flow:					
5:00	Total:	Total:					
6:00	Flow:	Flow:					
6:00	Total:	Total:					
7:00	Flow:	Flow:					
7:00	Total:	Total:					
8:00	Flow:	Flow:					
8:00	Total:	Total:					
9:00	Flow:	Flow:					
9:00	Total:	Total:					
10:00 10:06	Flow: 34206	Flow: 31054	5916	5916	.75	✓	
10:00 10:06	Total: 213359137	Total: 355810262					
11:00	Flow: 34668	Flow: 31091	5916	5916	.75	✓	
11:00	Total: 25001755	Total: 37394293					
12:00	Flow: 34898	Flow: 31681					
12:00	Total: 24757364	Total: 3746533					

PUMP OPERATOR ELSCASH

Date

11/21/15

VERIFIED BY PUMP
COORDINATORK. Spring

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Date:

Approved:

Date:

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

Pump Run 11/20/15
Total L-31 North Pumped 7,325,320 gals
Total L-31 South Pumped 6,781,483 gals
North Pumping Station

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
2:00	Total:	Total:	Total:						
3:00	Flow:	Flow:	Flow:						
3:00	Total:	Total:	Total:						
4:00	Flow:	Flow:	Flow:						
4:00	Total:	Total:	Total:						
5:00	Flow:	Flow:	Flow:						
5:00	Total:	Total:	Total:						
6:00	Flow:	Flow:	Flow:						
6:00	Total:	Total:	Total:						
7:00	Flow:	Flow:	Flow:						
7:00	Total:	Total:	Total:						
8:00	Flow:	Flow:	Flow:						
8:00	Total:	Total:	Total:						
9:00	Flow:	Flow:	Flow:						
9:00	Total: 21045	Total:	Total:						
10:00	Flow: 21122 ⁵	Flow: 21933	Flow: 24172	576	576	576	- .1		
10:00	Total: 26553137	Total: 39734935	Total: 12208477	576	576	576	- .4		
11:00	Flow: 21757	Flow: L	Flow: L	576	576	576	- .4		
11:00	Total 13481515								
12:00	Flow: 21960	Flow: L	Flow: L	576	576	576	- .3		
12:00	Total: 14608825	Total:	Total:						

PUMP OPERATOR

Date

11/21/15

VERIFIED BY PUMP

COORDINATOR

K. S. S.

Date 11/21

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 1

Pump Coordinator Roles and Responsibilities

11/21 Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/22/09:30 Checked ALL Equipment for Operation & Functionality - Equipment all Operational.
 Checked For Wildlife in the Area - None Present.

11/22/9:46 Started North Pumps -

11/22/9:51 Started South Pumps -

11/22/11 North Station Pumped = 4,815,846

11/22/11 South Station Pumped = 4,523,950

11/22/11:55 North Station Pumped = 3,527,507

11/22/11:50 South Station Pumped = 3,283,050

11/22/12:00 Total Pumped by North Station = 8,343,353

11/22/12:00 Total Pumped by South Station = 7,807,000

Brad Penogale
 Brad Penogale
 11-22-15

11-21-15 - 11-22-15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Patricia Ward

Date:

10/1/15

Approved:

Paul M. [Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

11/21
11/22

Pump Run
North Pumping Station
8,343,353 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

Bryan Ingram

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year				
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat	
00:00	Flow:	Flow:	Flow:							
00:00	Total:	Total:	Total:							
1:00	Flow:	Flow:	Flow:							
1:00	Total:	Total:	Total:							
2:00	Flow:	Flow:	Flow:							
2:00	Total:	Total:	Total:							
3:00	Flow:	Flow:	Flow:				- .25	.80	✓	
3:00	Total:	Total:	Total:							
4:00	Flow:	Flow:	Flow:				- .10	.80	✓	
4:00	Total:	Total:	Total:							
5:00	Flow:	Flow:	Flow:				0	.80	✓	
5:00	Total:	Total:	Total:							
6:00	Flow:	Flow:	Flow:							
6:00	Total:	Total:	Total:							
7:00	Flow:	Flow:	Flow:							
7:00	Total:	Total:	Total:							
8:00	Flow:	Flow:	Flow:							
8:00	Total:	Total:	Total:							
9:00	Flow: 23017	Flow: ERROR	Flow: 21035	576	576	576	+ .1	.8	✓	
9:46	Total: 14477717	Total: ERROR	Total: 28588434							
10:00	Flow: ⚡	Flow: ⚡	Flow: ⚡	⚡	⚡	⚡	⚡	⚡		
10:00	Total: ⚡	Total: ⚡	Total: ⚡	⚡	⚡	⚡	⚡	⚡		
11:00	Flow: 21948	Flow: ERROR	Flow: 20558	576	576	576	- .2	.8	✓	
11:00	Total: 16069484	Total: ERROR	Total: 30024341							
11:53	Flow: 21806	Flow: ERROR	Flow: 20361	576	576	576	- .4	.8	✓	
12:00	Total: 17232673	Total: ERROR	Total: 31104674	601 Hz	601 Hz	601 Hz				

PUMP OPERATOR

Date

11-22-15

VERIFIED BY PUMP
COORDINATOR

Date

11/22

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
13:00	Flow:	Flow:	Flow:						
13:00	Total:	Total:	Total:						
14:00	Flow:	Flow:	Flow:						
14:00	Total:	Total:	Total:						
15:00	Flow:	Flow:	Flow:						
15:00	Total:	Total:	Total:						
16:00	Flow:	Flow:	Flow:						
16:00	Total:	Total:	Total:						
17:00	Flow:	Flow:	Flow:						
17:00	Total:	Total:	Total:						
18:00	Flow:	Flow:	Flow:						
18:00	Total:	Total:	Total:						
19:00	Flow:	Flow:	Flow:						
19:00	Total:	Total:	Total:						
20:00	Flow:	Flow:	Flow:						
20:00	Total:	Total:	Total:						
21:00	Flow:	Flow:	Flow:						
21:00	Total:	Total:	Total:						
22:00	Flow:	Flow:	Flow:						
22:00	Total:	Total:	Total:						
23:00	Flow:	Flow:	Flow:						
23:00	Total:	Total:	Total:						
24:00	Flow:	Flow:	Flow:						
24:00	Total:	Total:	Total:						

PUMP
OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date

ERICCAH 11/22/15

Kyle Carr

22/11/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Cathy Ward

Date:

10/1/15

Approved:

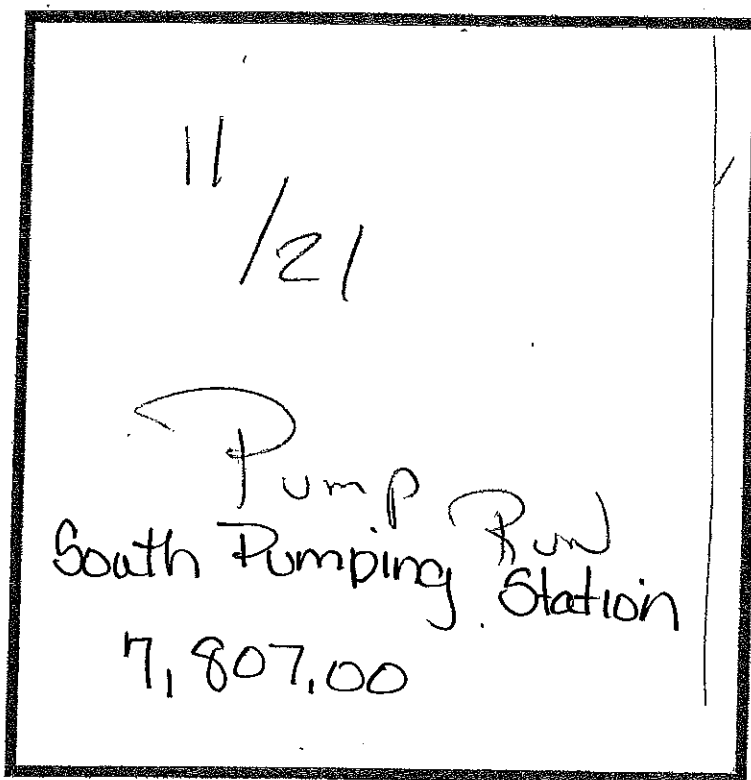
Paul Smith

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps



INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
Month <u>11</u>		Day <u>22</u>		Year <u>2015</u>		
Time	North Pump (107944)	South Pump (107939)	RPM No. Pump	RPM So. Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00	Flow:	Flow:				
2:00	Total:	Total:				
3:00	Flow:	Flow:				
3:00	Total:	Total:				
4:00	Flow:	Flow:				
4:00	Total:	Total:				
5:00	Flow:	Flow:				
5:00	Total:	Total:				
6:00	Flow:	Flow:				
6:00	Total:	Total:				
7:00	Flow:	Flow:				
7:00	Total:	Total:				
8:00	Flow:	Flow:				
8:00	Total:	Total:				
9:00 a.s.i	Flow: 34212	Flow: 50901	5916	5916	.75	✓
9:00 a.s.i	Total: 24917964	Total: 37979374				
10:00	Flow: 34212	Flow: 50901				
10:00	Total: 24917964	Total: 37979374				
11:00	Flow: 34990	Flow: 51022	5916	5916	.75	✓
11:00	Total: 27242473	Total: 37375143				
12:00	Flow: 347916	Flow: 50514	5916	5916	.75	✓
12:00	Total: 26634846	Total: 40773242				

PUMP OPERATOR ERSC CASH

Date

11-22-15

VERIFIED BY PUMP
COORDINATOR

11-22

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
Time	North Pump (107944)	South Pump (107939)	RPM No Pump	RPM So Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
16:00	Total:	Total:				
17:00	Flow:	Flow:				
17:00	Total:	Total:				
18:00	Flow:	Flow:				
18:00	Total:	Total:				
19:00	Flow:	Flow:				
19:00	Total:	Total:				
20:00	Flow:	Flow:				
20:00	Total:	Total:				
21:00	Flow:	Flow:				
21:00	Total:	Total:				
22:00	Flow:	Flow:				
22:00	Total:	Total:				
23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24:00	Total:	Total:				

PUMP OPERATOR

Date: _____

VERIFIED BY PUMP
COORDINATOR

Date: _____

11/22 Pump Run

Date / Time

EVENT LOG BOOK

Page 1 of 1

11/23 10/100 Set up both Stations + Wildlife Checks

11/23/0220 Start North pumps 0220

11/23/0225	Start South pumps	0225
------------	-------------------	------

10300	North Pump Station	2,609,920
-------	--------------------	-----------

7) 10300 South pump Station 2,312,835

10400	South pump station	3,997,020
-------	--------------------	-----------

1/24/00	North Pump Station 3, 834,900
---------	-------------------------------

10500	North Pump Station	3,826,260
-------	--------------------	-----------

10500	South pump station	3,997,380
-------	--------------------	-----------

10600 North Pump Station 3,846,870

10600 SOUTH PUMP STATION 4,004.670

10700 NORTH DUMP STATION 3,874,290

10700 SOUTH pump. STATION 4,006,230

10800 North Station Pumped = 3,913,050

10800 South station Pumped: 3,981,480

13900 North Station Pumped = 3,906,480

1/0900 South Station Pumped = 3,882,600

1/10/00 North station Pumped = 3,889,620

1/10:00 South station Pumped = 3,830,670

(11:00 North Station Pumped = 3,889,030

11:00 South Station Pumped = 3,845,310

1155 North Station Pumped = 3,540,240

1150 South Station Pumped = 3,211,600

4/23/12 Total Water Pumped by North Station = 37,130,660

11/23/12 Total Water Pumped by South Station = 37,069,945

11-22-15-11-23-15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Cabin W. L.

Date:

10/1/15

Approved:

[Signature]

Date:

10/1/15

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

11/22
Pump
Run
North Pumping Station
37,130,660 Gallons

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

Bryan Ingram

NORTH PUMPING STATION HOURLY LOG SHEET									
Month <u>11</u> Day <u>23</u> Year <u>15</u>									
Time	East Pump (107942)H3	Center Pump (107941)H2	West Pump (107940)H1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
00:00	Flow:	Flow:	Flow:						
00:00	Total:	Total:	Total:						
1:00	Flow:	Flow:	Flow:						
1:00	Total:	Total:	Total:						
2:00	Flow:	Flow:	Flow:						
0220	24254	ERROR	20634	576	576	576	- .25	.80	✓
2:00	Total:	Total:	Total:						
	17155190	ERROR	31048498						
3:00	Flow:	Flow:	Flow:						
	22397	ERROR	20508	576	576	576	- .30	.80	✓
3:00	Total:	Total:	Total:						
	19010834	ERROR	31821969						
4:00	Flow:	Flow:	Flow:						
	22195	ERROR	20530	576	576	576	- .20	.80	✓
4:00	Total:	Total:	Total:						
	19297159	ERROR	33061179						
5:00	Flow:	Flow:	Flow:						
	22091	ERROR	20525	576	576	576	- .10	.80	✓
5:00	Total:	Total:	Total:						
	20598571	ERROR	34280996						
6:00	Flow:	Flow:	Flow:						
	22636	ERROR	20777	576	576	576	.0	.8	✓
6:00	Total:	Total:	Total:						
	21953031	ERROR	35560400						
7:00	Flow:	Flow:	Flow:						
	22750	ERROR	20780	576	576	576	+ .1	.8	✓
7:00	Total:	Total:	Total:						
	22399181	ERROR	36808352						
8:00	Flow:	Flow:	Flow:						
	22542	ERROR	20763	576	576	576	+ .2	.8	✓
8:00	Total:	Total:	Total:						
	24633820	ERROR	38045850						
9:00	Flow:	Flow:	Flow:						
	23187	ERROR	20124	576	576	576	+ .2	.8	✓
9:00	Total:	Total:	Total:						
	25974407	ERROR	39276262						
10:00	Flow:	Flow:	Flow:						
	22858	ERROR	19885	576	576	576	+ .2	.8	✓
10:00	Total:	Total:	Total:						
	27352272	ERROR	40469633						
11:00	Flow:	Flow:	Flow:						
	23211	ERROR	19747	576	576	576	+ .3	.8	✓
11:00	Total:	Total:	Total:						
	28716992	ERROR	41653862						
11:55	Flow:	Flow:	Flow:						
	22647	ERROR	19531	576	576	576	.0	.8	✓
11:58	Total:	Total:	Total:						
	29918567	ERROR	42706872						

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 2

NORTH PUMPING STATION HOURLY LOG SHEET				Month	Day	Year			
Time	East Pump (107942)#3	Center Pump (107941)#2	West Pump (107940)#1	RPM East Pump	RPM Center Pump	RPM West Pump	North Canal Level North of 344 St	South Canal Level South of 344 St	System Checks Sat
13:00	Flow:	Flow:	Flow:						
13:00	Total:	Total:	Total:						
14:00	Flow:	Flow:	Flow:						
14:00	Total:	Total:	Total:						
15:00	Flow:	Flow:	Flow:						
15:00	Total:	Total:	Total:						
16:00	Flow:	Flow:	Flow:						
16:00	Total:	Total:	Total:						
17:00	Flow:	Flow:	Flow:						
17:00	Total:	Total:	Total:						
18:00	Flow:	Flow:	Flow:						
18:00	Total:	Total:	Total:						
19:00	Flow:	Flow:	Flow:						
19:00	Total:	Total:	Total:						
20:00	Flow:	Flow:	Flow:						
20:00	Total:	Total:	Total:						
21:00	Flow:	Flow:	Flow:						
21:00	Total:	Total:	Total:						
22:00	Flow:	Flow:	Flow:						
22:00	Total:	Total:	Total:						
23:00	Flow:	Flow:	Flow:						
23:00	Total:	Total:	Total:						
24:00	Flow:	Flow:	Flow:						
24:00	Total:	Total:	Total:						

PUMP
OPERATOR _____

VERIFIED BY PUMP
COORDINATOR _____
Date: _____

ERIC CASH
11/23/15

Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

Revision No. 08

Author:

Date:

Approved:

Date:

Revision 7: Added RPM Columns for North and South Pumping Stations in Procedure.

Revision 8: Added requirement for validating CCS level margin prior to starting L31 pumps

South Pump Station
11/22 Pump Run
Nights Nan Sweeney
Days Eric Cash
37,069,945 Gallons

ELCCASH 11/23/15
Rev 8, 10/01/2015

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

11/22 Pump Run

SOUTH PUMP STATION HOURLY LOG SHEET Month <u>11</u> Day <u>22</u> Year <u>15</u>						
Time	North Pump (107944)	South Pump (107939)	RPM No Pump	RPM So Pump	South Canal Level	System Checks Sat
00:00	Flow:	Flow:				
00:00	Total:	Total:				
1:00	Flow:	Flow:				
1:00	Total:	Total:				
2:00 2:25	Flow: 34212	Flow: 31124				✓
2:00 2:25	Total: 29074754	Total: 40997322			.8	✓
3:00	Flow: 34704	Flow: 32121				✓
3:00	Total: 36185944	Total: 42022663			.8	✓
4:00	Flow: 34515	Flow: 31792				✓
4:00	Total: 32270912	Total: 43955085			.8	✓
5:00	Flow: 34573	Flow: 32365				✓
5:00	Total: 34338785	Total: 45892382			.8	✓
6:00	Flow: 34076	Flow: 32525	588	588	.8	✓
6:00	Total: 3633415	Total: 4786395				
7:00	Flow: 34564	Flow: 32426	588	588	.8	✓
7:00	Total: 363589103	Total: 491682612				
8:00	Flow: 34452	Flow: 31274	588	588	.8	✓
8:00	Total: 40373198	Total: 51843591				
9:00	Flow: 34344	Flow: 29352	588	588	.8	
9:00	Total: 42461624	Total: 53374221				
10:00	Flow: 34641	Flow: ERROR	588	588	.8	✓
10:00	Total: 44489735	Total: 53966966				
11:00	Flow: 34832	Flow: ERROR	588	588	.8	✓
11:00	Total: 46525192	Total: 54060491				
12:00	Flow: 34928	Flow: ERROR	588	588	.8	✓
12:00	Total: 48274992	Total: 540180491				

FL

PUMP OPERATOR ELCCASH

Date 11/23/15

VERIFIED BY PUMP
COORDINATOR

6086 11/23/15

INJECTION OF L31 CANAL WATER INTO THE CANAL COOLING SYSTEM PROCEDURE

ATTACHMENT 3

SOUTH PUMP STATION HOURLY LOG SHEET						
	Month		Day		Year	
Time	North Pump (107944)	South Pump (107939)	RPM No Pump	RPM So Pump	South Canal Level	System Checks Sat
13:00	Flow:	Flow:				
13:00	Total:	Total:				
14:00	Flow:	Flow:				
14:00	Total:	Total:				
15:00	Flow:	Flow:				
15:00	Total:	Total:				
16:00	Flow:	Flow:				
16:00	Total:	Total:				
17:00	Flow:	Flow:				
17:00	Total:	Total:				
18:00	Flow:	Flow:				
18:00	Total:	Total:				
19:00	Flow:	Flow:				
19:00	Total:	Total:				
20:00	Flow:	Flow:				
20:00	Total:	Total:				
21:00	Flow:	Flow:				
21:00	Total:	Total:				
22:00	Flow:	Flow:				
22:00	Total:	Total:				
23:00	Flow:	Flow:				
23:00	Total:	Total:				
24:00	Flow:	Flow:				
24:00	Total:	Total:				

PUMP OPERATOR

Date

VERIFIED BY PUMP
COORDINATOR

Date