

Edl, Michele

From: Spencer, Steven M -FS [sspencer@fs.fed.us]
Sent: Monday, December 30, 2013 11:59 AM
To: Edl, Michele
Subject: RE: 77-7334 power use Big Creek Lodge

Michele,

I received your phone message.

We're attempting to address our water rights in a uniform and consistent manner throughout the state. For this one it would be:

USDA Forest Service
Payette National Forest Service
800 W. Lakeside Avenue
McCall, ID 83638

If you have any questions about this please let me know. Thank you for your help.

Steve

	Steven M. Spencer Water Use Specialist USDA Forest Service 1805 Hwy 16 Rm 5 Emmett, ID 83617 sspencer@fs.fed.us (208) 365-7055	
<i>Peace cannot be kept by force. It can only be achieved by understanding.</i> - Albert Einstein		

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Edl, Michele

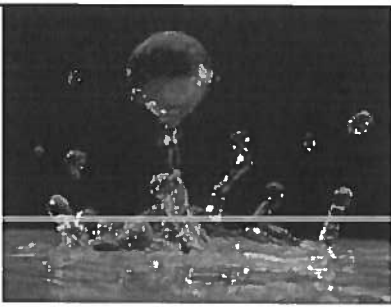
From: Spencer, Steven M -FS [sspencer@fs.fed.us]
Sent: Tuesday, November 05, 2013 3:16 PM
To: Edl, Michele
Subject: 77-7334 power use Big Creek Lodge

Michele,

Today, after much recently renewed 'encouragement' directed at my field folks I received information that the nozzles or orifices for the hydro unit at Big Creek are 1¼ and 1 inch. In addition they rely almost exclusively on the 1¼ inch apparatus. I hope that this information is sufficient for your calculations for moving 77-7334 to license.

If you have any questions about this matter please contact me.

Steve

	Steven M. Spencer Water Use Specialist USDA Forest Service 1805 Hwy 16 Rm 5 Emmett, ID 83617	
sspencer@fs.fed.us (208) 365-7055		
<i>We cannot solve our problems with the same thinking we used when we created them – Albert Einstein</i>		

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Edl, Michele

From: Spencer, Steven M -FS [sspencer@fs.fed.us]
Sent: Thursday, July 25, 2013 4:35 PM
To: Edl, Michele
Subject: FW: 77-7334 power use Big Creek Lodge
Attachments: FERCInspection2000.pdf

Michele,

As we are talking.

Steve

From: Nash, Kathryn S -FS
Sent: Thursday, July 25, 2013 3:39 PM
To: Spencer, Steven M -FS
Subject: RE: 77-7334 power use Big Creek Lodge

Hi Steve,

I'm sorting through the historic files for the hydropower facility at Big Creek Lodge looking for information on the hydropower equipment. The attached FERC inspection has some of the specs for the turbine, but I don't know if it is enough.

Our trip to Big Creek was cancelled for this week due to the Thunder City fire; however, I do expect to get back there later this summer.

I will let you know if I find more information in the file and we are hoping to hear back from the new owner to see if he has any info. about the equipment.

Kathy

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OPERATION REPORT
(ELECTRONICALLY SUBMITTED)
FEDERAL ENERGY REGULATORY COMMISSION
Portland Regional Office

For the period August 14, 1996 to August 25, 1999
Licensee Big Creek Lodge & Outfitters Project No. 10721-ID
NATDAM ID# N/A
Project Name Big Creek
Location McCorkle Ck, Payette Nat'l Forest, Valley, Idaho
(Waterway or Reservoir) (County) (State)
License Issued Mar. 27, 1992 Expires Feb. 28, 2022 Type Minor
Date of Last Amendment None
Inspected by Thomas Bobal Date August 25, 1999
Parts of Project Inspected All project features
Weather Sunny, mostly clear, 60's
Accompanied by Phillip Allen, Vice President (BCLO) and Plant
Operator; and Michele O'Connell, U.S. Forest Service

Summary

The project is once again in full operation after temporarily shutting down in 1996 due to the death of BCLO President, Howard Manly. BCLO reorganized under new management, and based on a file review and field inspection, appeared to be in compliance with the terms and conditions of the license during this report period.

The project structures appeared to be in sound structural condition and well maintained. No significant problems or discrepancies were observed.

Submitted May 18, 2000
Thomas Bobal, P.G.

PERTINENT DATA SHEET
Big Creek Hydroelectric Project
FERC No. 10721-ID

COMPLETION DATE : 1968

HEADBOX

Material : Wood logs
Height : 2 ft.
Length : 3 ft.

PENSTOCK

Material : PVC
Diameter : 4 in.
Length : 1,340 ft.
Features : buried

POWERHOUSE

Material : Wood logs
Length : 10 ft.
Width : 6.5 ft.
Number of Units : 1

TURBINE

Type : Pelton, horizontal shaft
Head : 237 ft.

GENERATOR

Manufacturer	: DYNA	
Frequency	: 60 Hz	
Speed	: 1800 rpm	
Type	: <u>3-phase</u>	<u>1-phase</u>
Nameplate Rating	: 31.25 kVA (25 kW)	22 kVA (22kW)
Power Factor	: 0.8	1.0
Voltage	: 208-240/416-480 V	120/240 V
Current	: 87-75/43-38 A	92 A

TRANSMISSION LINE : Buried, 350 ft. long

BOAT BARRIER INSTALLATION : None required

HAZARD POTENTIAL CLASSIFICATION : LOW

A. Safety of the Project

Attached are Exhibit 1, a project location map, and Exhibit 2, a project site plan, with photo orientations. Also attached are 6 photographs showing the condition and features of the project at the time of the subject inspection. The project features appeared to be adequately maintained.

1. Dams, Dikes, and Appurtenant Structures. The project consists of:

- a wood-log headbox,
- a 1,340-foot-long PVC penstock, and
- a log powerhouse containing a single turbine/generator unit.

The headbox (Photo 1) utilized to impound water for the penstock intake appeared to be in satisfactory condition and better maintained than noted during the previous operation inspection in 1996. The log bracing above the overflow weir completely deteriorated and was replaced in 1997. The plastic tarp used to line the headbox has been removed.

The penstock is buried for its entire length and could not be inspected (Photo 2). No signs of leakage along the penstock route were noted during the subject inspection. Mr. Allen reported that, in the spring of 1997, water backed up in the creek and overflowed out along the penstock route. All sections of pipe that were exposed by the erosion have since been repaired by replacing the soil cover and regrading.

The wooden powerhouse superstructure burned down in 1983 and was replaced in 1994 by a new permanent wood-log building with a metal roof (Photo 3). At that time, the turbine-to-generator belt connections were adjusted, and the electrical boxes and wiring were upgraded to more efficiently provide power to the lodge and to improve the safety factor. Mr. Allen reported that, in the spring of 1998, the turbine nozzle was redesigned and repositioned to further improve power efficiency.

2. Instrumentation. Monitoring instrumentation for the safety of the project is not required, nor is any considered necessary.

3. Hazard Potential Classification. The project has a low hazard potential classification because a headbox failure and consequent loss of the extremely small impoundment would not

endanger human life or cause significant property damage. No new residential or recreational developments downstream were noted which would affect the current hazard classification. The low hazard potential classification appears to be appropriate.

4. Consultant's Safety Inspection Reports. The project is not subject to Part 12, Subpart D, of the Commission's Regulations; therefore, a consultant's safety inspection is not required.

5. Licensee's Inspection Program. Mr. Allen stated that he or one of the other operators normally inspects the project works several times a week, as needed, when the lodge is occupied. More frequent inspections are carried out in the spring when debris accumulation at the headbox is a greater problem. Routine repairs are conducted by the project operators; major items are contracted for repair. The inspection program appears to be adequate.

B. Operation and Maintenance

The project operates when the lodge is occupied (normally 5 to 6 months of the year) and shuts down when the lodge is vacant. Until 1997, the lodge had not been in operation since the death of BCLO President Howard Manly in November 1995. In the interim, the power plant was used from time to time by the caretaker for his requirements.

1. Dams, Dikes, and Appurtenant Structures. In general, the project structures appeared to be in good condition and properly maintained.

2. Spillway Gates and Standby Power. There are no spillway gates or required standby power.

3. Power Plants. As detailed above in section A.1, the electrical and mechanical equipment have been upgraded for more efficient generation. The powerhouse interior has been cleaned up, and a new protective metal housing covers the turbine-to-generator belt (Photo 4). The enclosed tailrace conduit appeared to be successful in eliminating excessive turbine noise. The riprap placed in the outlet channel seemed to be properly dissipating tailrace flow energy and preventing channel erosion (Photo 5). There was no water leakage at the Pelton wheel shroud as reported during previous operation inspections.

The plant was operating and producing approximately 12 kW during the subject inspection. For stand-by power, BCLO has installed a new 9-kW propane-powered generator (Photo 6) to replace the older 6-kW gasoline-powered one.

4. Reservoir. There is no reservoir associated with the project. A boat barrier is not required.

5. Records. BCLO maintains project records consisting of Exhibit F drawings and operational history at the Big Creek Lodge. A copy of the license is available at the lodge.

6. Emergency Action Plan. By July 1, 1992 letter, BCLO requested an exemption from filing an EAP; approval was granted by D2SI-PRO August 20, 1992 letter. Based on observations made during the subject inspection, the exemption should remain in effect.

C. Environmental, Public Use and Safety

1. Public Safety Plan (PSP). No public safety or environmental problems were observed. The project does not have any recreational use or potential. A PSP was not required, nor is one needed.

2. Need for Action. None.

3. Environmental and Public Use Inspection. No EPUI inspections have been conducted at this project.

D. Matters of Commission Interest

After Mr. Manly's death in 1995, BCLO was reorganized by the remaining shareholders, and the new ownership and management have been operating the project since May 1997. BCLO remains the licensee and Mr. David Tidwell the FERC contact.

1. Additions, Betterments, Leases, Retirements, or Needed Extensions. Nothing to report.

2. Requiring Commission Action. Nothing to report.

3. Project Compliance. License Article 104 requires BCLO to annually file evidence of consultation with the USFS during the 60 days preceding the anniversary date of the license. By August 9, 1999 letter, BCLO submitted the required information; accepted by DLC September 9, 1999 letter.

Based on site inspection and file review, BCL0 appears to have been in compliance with the license requirements during the report period.

E. Findings and Follow-up Actions.

None.

Attachments

Exhibit No. 1 - Project Location Map
Exhibit No. 2 - Project Layout with Photo Locations
1 Set of 6 Photographs

D2SI-PRO/Bobal/lbb

Draft: 10/27/1999,11/03/1999,11/24/1999,1/28/2000

FINAL:

PURS: B85600

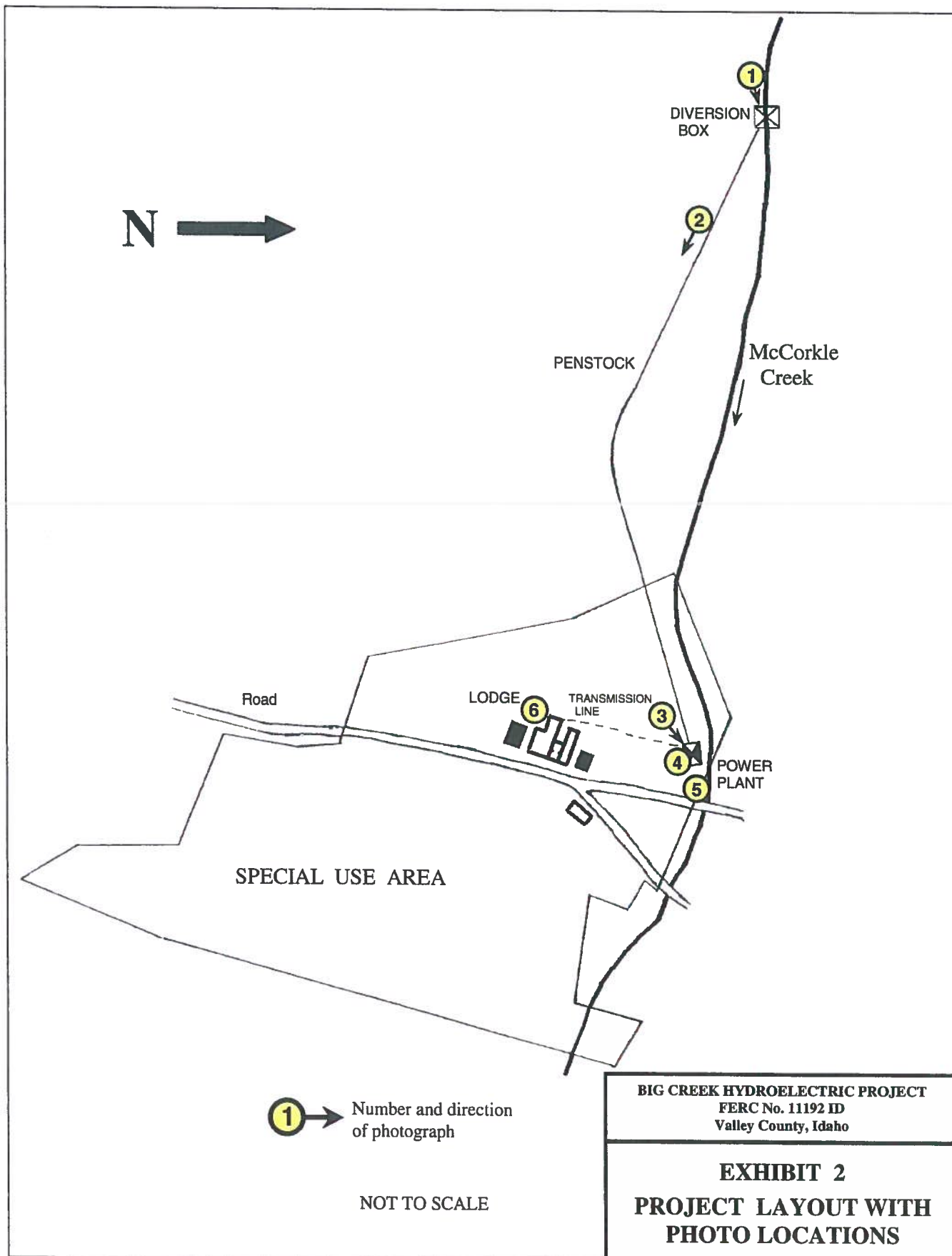
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File Size = 857 kB



BIG CREEK HYDROELECTRIC PROJECT
FERC No. 10721-ID
Valley County, Idaho

EXHIBIT 1
PROJECT LOCATION MAP

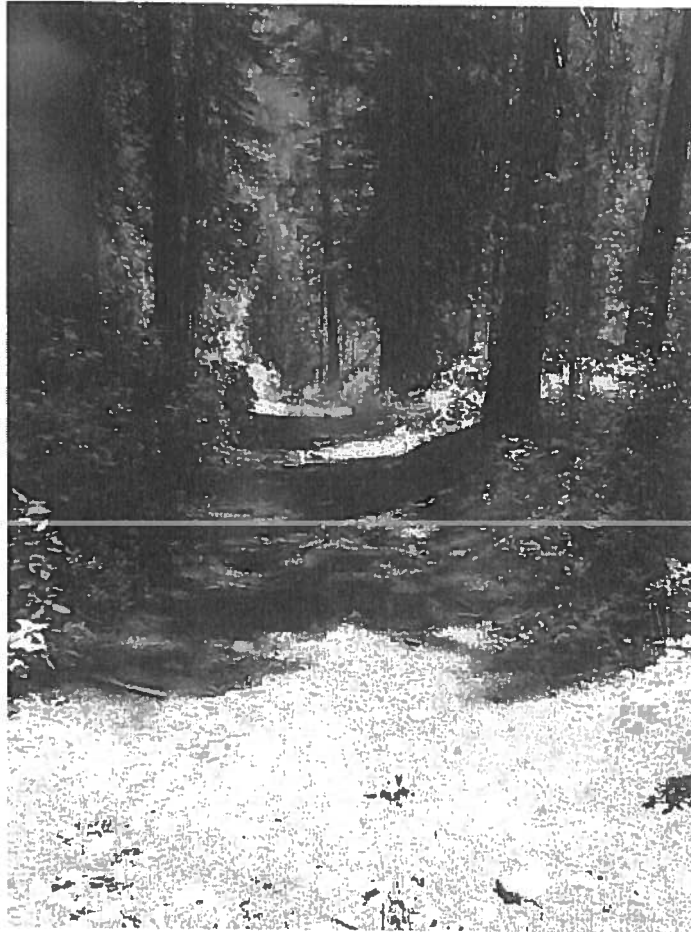


Big Creek Hydroelectric Project, FERC No. 10721-ID
August 25, 1999



1. Intake headbox. Note new log bracing (arrow).

Big Creek Hydroelectric Project, FERC No. 10721-ID
August 25, 1999



2. Route of buried penstock.

Big Creek Hydroelectric Project, FERC No. 10721-ID
August 25, 1999

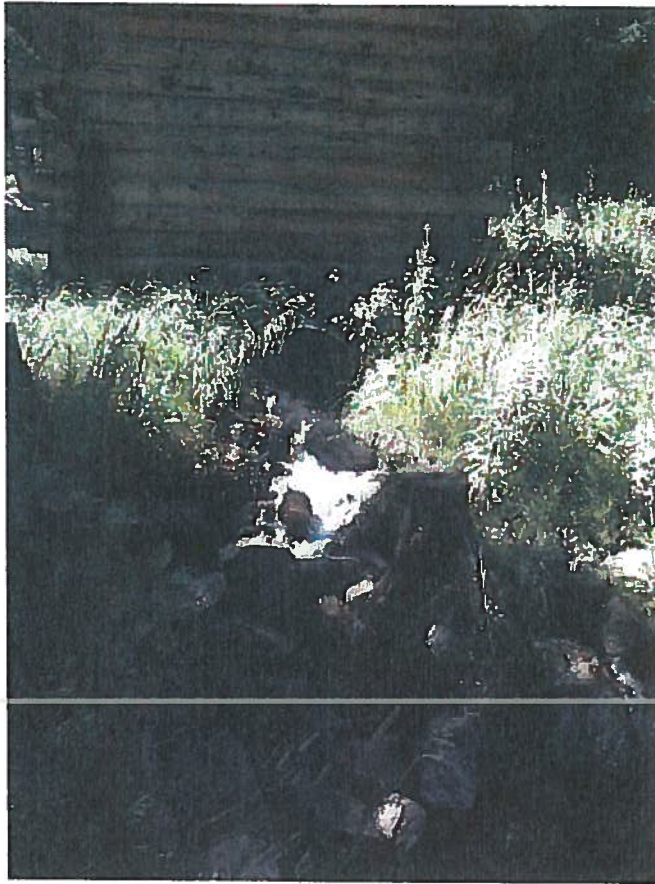


3. New wood-log powerhouse.

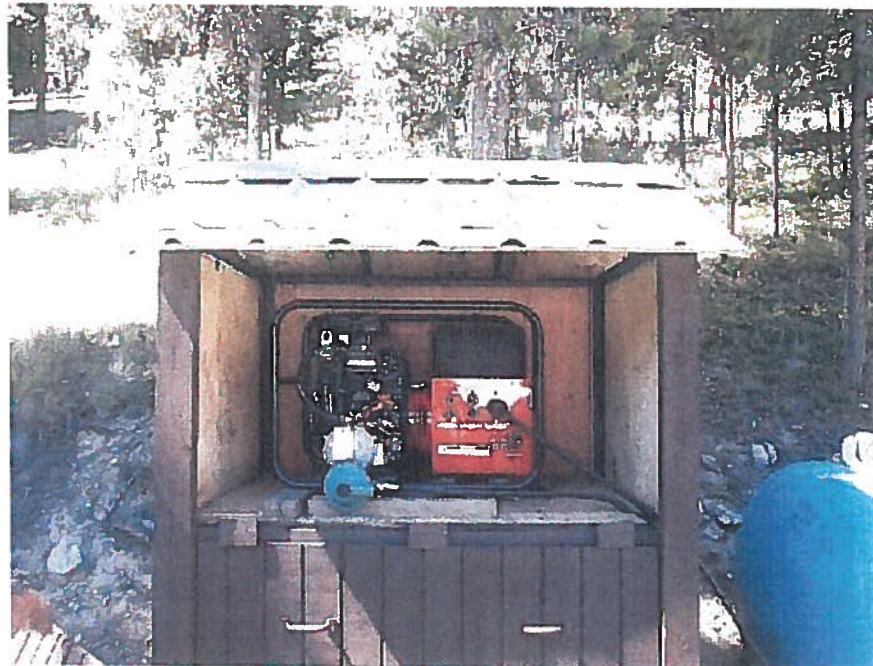


4. Turbine and generator with new protective housing.

Big Creek Hydroelectric Project, FERC No. 10721-ID
August 25, 1999



5. Tailrace channel with riprap protection.



6. New 9-kW propane-powered emergency generator.

Edl, Michele

From: Edl, Michele
Sent: Tuesday, July 16, 2013 5:26 PM
To: 'sspencer@fs.fed.us'
Subject: 77-7334 power use Big Creek Lodge

Mr. Spencer,

Thank you for agreeing to assist me with issuing a license for permit 77-7334. I realized after we spoke that you could use a clarification of my information request.

I have a field exam from 1996. Photos from the exam show that a small hydropower facility was in place and probably in use but the examiner did not take measurements of the water use or the kW generated. He estimated a flow and stated that condition 8 of the permit had not been met. Condition 8 states:

The right holder shall either install a measuring device or a flow measurement port or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer.

Before a license can be processed I must resolve the issue of non-compliance with a condition of the permit.

I contend that the turbine is a measuring device and if I know enough about it, I can argue that the measuring device has been installed.

This is a FERC authorized hydropower project. And because of that, I believe that engineers were involved in the design. However, the permit file lacks all engineering related documents.

Because this permit was authorized in 1994, the design calculations or the equipment order may no longer be available. For that reason, I need all the information I can get from the installed equipment and you have kindly dispatched a ranger to collect that information.

However, the information I need may be available in paper form. I am particularly interested in the turbine specs. I am hoping that either the forest service or Big Creek Lodge personnel has kept equipment data sheets or operation & maintenance manuals or the design specs or the equipment orders, or inventory receipts or....

The turbine make and model and capacity (cfs or gpm) may be in an equipment file somewhere. No additional trip to Big Creek lodge needed, only a trip to the copy machine.

I hope this helps you to help me.

Sincerely,
Michele Edl

MEMORANDUM

Date: July 16, 2013
To: Water Right File 77-7334
From: medl
Re: additional information request

While reviewing this file for licensing, I found that the field examiner hadn't made a flow measurement. His flow rate recommendation is based on a calculation. He also stated that the condition 8 had not been met.

I contacted Steven Spencer, Water Use Specialist for the USDA Forest Service, and asked for additional information about the turbine and generator so that a license could be issued.

Fires in the vicinity will delay retrieval of information from this project. He will connect with the most appropriate ranger and forward my request.
