

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER OF LICENSED)
WATER RIGHT NO. 03-7018 IN THE) **STATEMENT OF POSITION**
NAME OF IDAHO POWER COMPANY)
_____)

PROCEDURAL HISTORY

On November 23, 2007, the Idaho Department of Water Resources ("Department") issued a Preliminary Order approving the issuance of Water Right License No. 03-7018. On December 3, 2007, Idaho Power Co. ("Idaho Power") filed an appeal of the Preliminary Order. Specifically, Idaho Power challenged the Department's inclusion of approval condition no. 3 in the license. On July 25, 2008, Idaho Power served upon the Department a document titled Idaho Power Company's First Set of Discovery Requests. The Rules of Procedure before the Department do not provide for the service of interrogatories and requests for production upon the Department. However, to help expedite resolution of this matter, the Department agreed to provide Idaho Power with a Statement of Position explaining the history behind approval condition no 3. Attached hereto is the Statement of Position of the Department prepared by Shelley Keen, Water Rights Section Manager for the Department.

Dated this 1 day of OCTOBER , 2008.

By: 
GARRICK BAXTER
Deputy Attorney General
Attorney for IDWR

CERTIFICATE OF MAILING

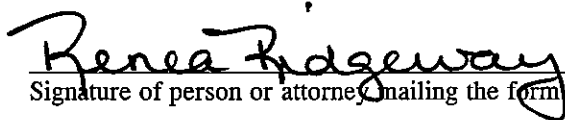
I certify that on October 1, 2008, I mailed the original and copies of this form, including all attachments, to the following persons by mailing the original and/or copies, postage prepaid and addressed as follows:

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**STATEMENT OF POSITION
OF THE
IDAHO DEPARTMENT OF WATER RESOURCES**

Approval condition no. 3 on Water Right License 03-7018 states:

The diversion and use of water for hydropower purposes under this license is subject to review by the Director after the date of expiration of the Federal Energy Regulatory Commission license for Brownlee Dam. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.

This condition is an example of the "term review" conditions used by the Department on water right permits and licenses authorizing the diversion and use of water for power generation. Effective July 1, 1985, Idaho Code §§ 42-203B (6) and (7) authorize the Department to limit a permit or license for power purposes to a specific term. Consistent with Idaho Code §§ 42-203B (6) and (7), it is the Department's standard practice to put term review conditions on all permits and licenses for the use of water to generate power.

The term review condition on Water Right License 03-7018 is used on water right licenses for power generation if the project requires Federal Energy Regulatory Commission (FERC) approval. This particular term review condition, modified to refer to the specific FERC authorized project or FERC license, also appears on at least 6 water right licenses issued by the Department. (See Attachment 1.) The Department has employed a similar term review condition on 32 water right permits requiring FERC approval. (See Attachment 2.)

The Department also employs term review conditions on water right permits and licenses for power generation projects not requiring FERC approval. Term review conditions appear on approximately 60 active permits and 35 licensed or decreed water rights for projects not requiring FERC approval. (See Attachments 3 and 4 respectively.)

The use of term review conditions dates back at least to a memorandum issued by Norm Young of the Department on March 22, 1984. A copy of the memorandum is attached to this statement as Attachment 5. The memorandum includes a directive to include the following term review condition on permits for power purposes:

The diversion and use of water under this permit and any license subsequently issued is subject to review by the Director thirty (30) years from the date of issuance of this permit or the date of FERC approval expiration (if applicable). Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.

On July 25, 1984, the Water Resource Board adopted a resolution supporting the use of term limits on water right permits and licenses for hydropower purposes. A copy of an IDWR publication announcing the resolution is attached hereto as Attachment 6. The resolution declares:

The position of the Idaho Water Resource Board is that the local public interest requires that all permits and licenses authorizing the diversion and use of waters of the state of Idaho for hydropower purposes be subject to review by the Director of the Department of Water Resources

The directive to use term review conditions was reinforced by the June 19, 1986, issuance of Amended Application Processing Memorandum No. 24 regarding the approval of permits for power purposes. A copy of Application Processing Memorandum No. 24 is attached to this statement as Attachment 7. Page 5 of Application Processing

Memorandum No. 24 references Attachment B to the memorandum. Attachment B includes the relevant hydropower term review conditions.

To this date, the Department has not acted upon its authority to review a water right for power generation at the end of the established term. Because term review conditions were implemented only about 24 years ago, there may not be many permits, licensed rights, or decreed rights for which the term has expired. To my knowledge, the Department has not implemented a routine effort or an ad hoc effort to determine when terms expire on water rights for power generation purposes.

By: Shelley W. Keen Oct. 1, 2008
Shelley W. Keen
Water Rights Section Manager
Idaho Department of Water Resources

9/30/2008

ATTACHMENT 1

Water Right Licenses Where the Project Requires FERC Approval
and IDWR Used a Term Review Condition

Basin	Sequence	Suffix	Basis	Priority Date	Rate(cfs)	Volume(a)	Source	Water Use(s)
3	7018		License	12/24/1975	5000.00	93400	SNAKE RIVER	POWER
29	7578		License	3/31/1981	175.00	100100	PORTNEUF RIVER	POWER
29	7772		License	8/1/1984	75.00	42900	PORTNEUF RIVER	POWER
32	7128		License	9/8/1982	45.00	32600	BIRCH CREEK	POWER
32	7136		License	1/3/1984	30.00	18500	BIRCH CREEK	POWER
47	7768		License	11/10/1981	110.00	61100	CEDAR DRAW	POWER

9/30/2008

ATTACHMENT 2

Water Right Permits Where the Project Requires FERC Approval
and IDWR Used a Term Review Condition

Basin	Sequence	Suffix	Basis	Priority Date	Rate(cfs)	Volume(af)	Source	Water Use(s)
1	7010	B	Permit	3/30/1977	3000.00		Snake River	POWER
1	7010	C	Permit	3/30/1977	3000.00		Snake River	POWER
1	7010	D	Permit	3/30/1977	3000.00		Snake River	POWER
1	7058		Permit	9/15/1980	1180.00		Snake River	POWER
1	7124		Permit	9/1/1993	1300.00		Snake River	POWER
2	7375		Permit	4/9/1982	5000.00		Snake River	POWER
2	7379		Permit	3/31/1982	6550.00		Snake River	POWER
21	7212		Permit	9/18/1980	960.00		HENRYS FORK	POWER
21	7375		Permit	2/9/1988	500.00		FALL RIVER	POWER
29	7699		Permit	5/9/1983	210.00		PORTNEUF RIVER	POWER
32	7128		Permit	9/8/1982	45.00		BIRCH CREEK	POWER
32	7136		Permit	1/3/1984	30.00		BIRCH CREEK	POWER
32	7170		Permit	2/19/1991	8.40		WARM SPRING CREEK	POWER
37	7848		Permit	8/14/1980	800.00		BIG WOOD RIVER	POWER
37	8113		Permit	6/2/1983	180.00		LITTLE WOOD RIVER	POWER
37	8178		Permit	7/2/1984	250.00		BIG WOOD RIVER	POWER
37	8262		Permit	3/4/1986	120.00		LITTLE WOOD RIVER	POWER
37	8389		Permit	11/12/1988	300.00		BIG WOOD RIVER	POWER
37	21297		Permit	4/22/2004	500.00		LITTLE WOOD RIVER	POWER
47	7768		Permit	11/10/1981	110.00		CEDAR DRAW	POWER
47	7961		Permit	9/21/1983	25.00		UNNAMED STREAM	POWER, WATER QUALITY IMPROVEMENT
47	7991		Permit	12/27/1984	40.00		CEDAR DRAW	POWER
47	8005		Permit	6/14/1985	50.00		CEDAR DRAW	POWER
63	9019		Permit	8/31/1977	5700.00		BOISE RIVER	POWER
63	10240		Permit	6/11/1984	5470.00		BOISE RIVER	POWER
63	11069		Permit	11/15/1989	2500.00		BOISE RIVER	POWER
77	7295		Permit	5/11/1989	2.00		MYERS CREEK	POWER
77	7322		Permit	9/16/1992	0.14		GASPER CREEK	DOMESTIC, FIRE PROTECTION, POWER
83	7102		Permit	8/17/1989	25.00		CLEARWATER RIVER NO	POWER
83	7103		Permit	8/17/1989	65.00		CLEARWATER RIVER NO	POWER
83	7133		Permit	12/11/1998	25.00		CLEARWATER RIVER NO	POWER
84	7171		Permit	6/30/1983	100.00		JIM FORD CREEK	POWER

ATTACHMENT 3

Water Right Permits Where the Project Does Not Require FERC Approval
and IDWR Used a Term Review Condition

Basin	Sequence	Suffix	Basis	Priority Date	Rate(cfs)	Volume(a)	Source	Water Use(s)
1	10401		Permit	6/6/2002		157000	SNAKE RIVER	POWER FROM STORAGE, POWER STORAGE
11	7449		Permit	9/16/1999	0.50		SKINNER CREEK	POWER
15	7168		Permit	5/19/1998	0.01		SPRING	DOMESTIC, POWER, WILDLIFE
21	7363		Permit	7/22/1985	433.00		HENRYS FORK	POWER, POWER FROM STORAGE, POWER
21	7382		Permit	7/26/1988	0.67		BUNKHOUSE SPRING	POWER
21	7566		Permit	9/2/1997	6.00		UNNAMED STREAM	POWER
29	8238		Permit	4/18/2000	0.50		REESE CREEK SOUTH FORK	POWER
29	13155		Permit	5/10/2001	1.00		SPRING	POWER
29	13720		Permit	8/16/2005	0.10		LOWER ROCK CREEK	POWER
31	7654		Permit	2/16/1999	3.80		CHING CREEK	POWER
32	7260		Permit	12/7/1999	6.70		BLUE CREEK SPRING, S	POWER
36	7967		Permit	2/24/1981	25.00		UNNAMED STREAM	POWER
36	8310		Permit	5/7/1986	85.00		CEDAR DRAW CREEK	FISH PROPAGATION, POWER
36	15959		Permit	10/18/2001	240.30		WARM CREEK	POWER
37	7719		Permit	6/16/1978	3.29		WADDINGTON SPRINGS	POWER
37	8194		Permit	12/8/1984	2.00		GROUND WATER	FISH PROPAGATION, IRRIGATION, POWER
37	8889		Permit	6/22/1999	0.50		CROESUS CREEK	POWER
47	8271		Permit	5/5/1991	20.00		UNNAMED STREAM, WAS	POWER, STOCKWATER
47	17094		Permit	4/25/2003	3.10		LATERAL NO 58	POWER
47	17279		Permit	2/6/2006	5.00		UNNAMED STREAM	POWER
63	10385		Permit	9/29/1986	2.00		SPRINGS, UNNAMED ST	DOMESTIC, FIRE PROTECTION, FISH PRO
63	31981		Permit	2/9/2004	1.00		ROBIE CREEK	FIRE PROTECTION, POWER
63	32648		Permit	4/20/2007	1.00		THORN CREEK MIDDLE F	POWER
65	12709		Permit	3/30/1984	2.45		PORTER CREEK	POWER
65	13621		Permit	6/2/1995	0.50		EDDY CREEK	DOMESTIC, POWER
65	22723		Permit	11/5/2001	4.86		DEADWOOD RIVER	POWER
67	14689		Permit	10/6/2005	0.78		SPRING	IRRIGATION, POWER
75	7455		Permit	3/24/1988	0.19		BRIDGE CREEK	POWER
75	7668		Permit	6/1/1999	0.18		SPRING	POWER
75	14061		Permit	2/13/2002	0.38		INDIAN CREEK	POWER

ATTACHMENT 3

Water Right Permits Where the Project Does Not Require FERC Approval
and IDWR Used a Term Review Condition

75	14272	Permit	4/14/2006	0.75		BEAVER CREEK	POWER
75	14473	Permit	8/8/2007	2.20		OWL CREEK	POWER
77	7161	Permit	1/8/1982	2.00		LEMHI CREEK	DOMESTIC, FIRE PROTECTION, POWER
77	7189	Permit	7/3/1983	10.00		SILVER CREEK	POWER
77	7192	Permit	5/20/1983	12.00		DEER CREEK, LOON CREEK	POWER
77	7334	Permit	2/23/1994	0.75		UNNAMED STREAM	POWER
77	14145	Permit	8/8/2002	0.27		PIONEER CREEK	POWER
78	7198	Permit	1/14/1982	0.80		HAT CREEK	POWER
78	7384	Permit	2/2/2006	0.12		UNNAMED STREAM	IRRIGATION, POWER
79	7237	Permit	8/7/1995	2.20		RACE CREEK WEST FORK	POWER
85	15383	Permit	1/28/2003	0.20		MISSION CREEK	DOMESTIC, POWER
85	15653	Permit	1/13/2006	0.20		FARRENS CREEK	POWER
86	11909	Permit	1/15/2003		11	SPRINGS	IRRIGATION FROM STORAGE, IRRIGATION
95	9006	Permit	1/28/1999	1.30		UNNAMED STREAM	AESTHETIC, AESTHETIC STORAGE, COOLING
95	9192	Permit	6/20/2003	0.15		LOST CREEK	IRRIGATION, IRRIGATION FROM STORAGE
95	9232	Permit	9/2/2003	0.30	11.4	UNNAMED STREAM	DOMESTIC, DOMESTIC FROM STORAGE, DOMESTIC
96	9057	Permit	9/12/2000	0.20	0.1	UNNAMED STREAM	POWER, POWER FROM STORAGE, POWER
96	9077	Permit	5/24/2001	0.20		UNNAMED STREAM	DOMESTIC, DOMESTIC FROM STORAGE, DOMESTIC
96	9192	Permit	7/30/2004	0.13		UNNAMED STREAM	IRRIGATION, POWER
96	9215	Permit	12/10/2004	1.60		COCOLALLA CREEK	DOMESTIC, POWER
96	9234	Permit	5/23/2005	0.20		SPRING, UNNAMED STREAM	DOMESTIC, IRRIGATION, POWER, STOCKY
96	9243	Permit	7/13/2005	0.18		DELYLE CREEK	DOMESTIC, POWER
96	9264	Permit	10/27/2005	0.04		MOORE CREEK	POWER
96	9266	Permit	11/18/2005	0.20		DELYLE CREEK	DOMESTIC, POWER
96	9302	Permit	9/13/2006	0.15		UNNAMED STREAM	IRRIGATION, POWER
97	7432	Permit	4/29/2004	0.18		SOUTH OLE CREEK	POWER
97	7436	Permit	7/8/2004	0.30		UNNAMED STREAM	POWER
98	7726	Permit	2/24/1994	0.20		HALL CREEK	POWER, POWER FROM STORAGE, POWER
98	7836	Permit	8/31/2004	0.20		FALL CREEK, UNNAMED	DOMESTIC, POWER
98	7850	Permit	3/16/2006	0.15		SPRINGS	DOMESTIC, POWER
98	7861	Permit	5/22/2007	0.65		MISSION CREEK	DOMESTIC, FIRE PROTECTION, IRRIGATION

9/30/2008

ATTACHMENT 4

Water Right Licenses Where the Project Does Not Require FERC Approval
and IDWR Used a Term Review Condition

Basin	Sequence	Suffix	Basis	Priority Date	Rate(cfs)	Volume(a)	Source	Water Use(s)
13	7452		License	5/3/1988	1.50	1090	SUGAR CREEK	POWER
23	7068		Decreed	5/14/1981	3.98	238	UNNAMED STREAM	POWER
32	7170		License	2/19/1991	2.95	1649	WARM SPRINGS CREEK	POWER
33	7087		Decreed	1/8/1981	7.00	5070	BELL MOUNTAIN CREEK	POWER
33	7093		License	4/10/1981	5.00	3620	DEEP CREEK	POWER
33	7159		License	11/8/1983	0.80	578	BLACK CREEK	POWER
33	7177		License	4/29/1991	5.50	3980	DEEP CREEK	POWER
33	7178		License	4/29/1991	2.70	1950	BLACK CREEK	POWER
37	7749		Decreed	11/29/1978	5.21		UNNAMED STREAM	POWER
37	7854		License	7/23/1980	3.38	2450	INDIAN CREEK SPRING	POWER
37	7863		Decreed	10/31/1980	60.00	43400	LITTLE WOOD RIVER	POWER
37	7911		Decreed	5/7/1981	60.00	43400	LITTLE WOOD RIVER	POWER
37	7943		License	9/23/1981	490.00	319000	LITTLE WOOD RIVER	POWER
37	8096		Decreed	5/4/1983	300.00	217000	LITTLE WOOD RIVER	POWER
37	8251		Decreed	10/28/1985	157.00	114000	LITTLE WOOD RIVER	POWER
47	7679		License	6/23/1982	30.00	17200	SPRINGS, WASTE WATE	POWER
47	7682		License	6/23/1982	14.00	3240	SPRINGS	POWER
47	7739		License	8/7/1981	0.66	298	LATERAL NO 58	POWER
47	7812		License	4/25/1982	100.00	34800	UNNAMED STREAM	POWER
47	7813		License	4/22/1982	6.25	4510	GROUND WATER	POWER
65	12563		License	9/14/1982	3500.00	1960000	PAYETTE RIVER	POWER
75	7352		License	4/20/1983	0.60		WALLACE CREEK	POWER
77	7133		Decreed	4/8/1981	0.60		LICK CREEK	POWER
77	7322		License	9/16/1992	0.14	23.2	GASPER CREEK	DOMESTIC, FIRE PROTECTION, POWER
78	7150	B	Decreed	6/23/1980	7.72	4272.2	ELK CREEK	POWER
78	7154		Decreed	7/28/1980	10.00	5534	ELK CREEK	POWER
78	7188		Decreed	10/29/1981	8.00	4427.2	ELK CREEK	POWER
78	7313		License	3/28/1990	0.20	167	SPRING	DOMESTIC, IRRIGATION, POWER, STOCKWATER
79	7089		License	8/10/1981	16.90	3510	JOHN DAY CREEK	POWER
81	7152		License	10/25/1991	0.12	87.4	SPRING	DIVERSION TO STORAGE, POWER, RECREATION, RE
96	8759		License	5/17/1993	0.04	30.2	UNNAMED STREAM	DOMESTIC, POWER
97	7385		License	6/1/1998	0.06	22.6	UNNAMED STREAM	IRRIGATION, POWER, STOCKWATER
94	7238		License	3/31/1983	0.08	37.7	UNNAMED STREAM	DOMESTIC, FIRE PROTECTION, IRRIGATION, POWER
95	9241		License	8/26/2004	0.10	44.7	UNNAMED STREAM	DOMESTIC, DOMESTIC STORAGE, POWER, POWER
96	7796		License	6/19/1979	0.90	600.2	GROUSE CREEK SOUTH	FIRE PROTECTION, IRRIGATION, POWER



State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

A. KENNETH DUNN
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

MEMORANDUM

March 22, 1984

TO: Glen Saxton
Bob Fleenor

FROM: Norm Young *NY*

RE: APPROVAL OF HYDROPOWER RIGHTS
(Supersedes memo dated February 23, 1984)

Applications proposing power generation may be approved assuming the following usual factors have been considered:

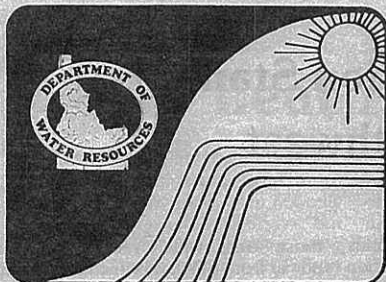
- a) the guidelines of the existing administrative memo dated 12-1-1980 and 3-3-1980 are met
- b) appropriate conditions of approval including subordination are shown.

In addition, all permits issued for power purposes or including power as a use (excluding the exceptions in my 3-3-1980 administrative memo) should have the following conditions of approval:

"The diversion and use of water under this permit and any license subsequently issued is subject to review by the Director thirty (30) years from the date of issuance of this permit or the date of FERC approval expiration (if applicable). Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised."

"Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control."

tabbies' Attachment
5



Bulk Rate
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Boise, Idaho

Currents

A publication of energy and water information published by the Idaho Department of Water Resources, A. Kenneth Dunn, Director - John V. Evans, Governor

Vol. 2, No. 8

Statehouse, Boise, Idaho

August, 1984

IDWR sets time limit on hydro permits

The Idaho Water Resource Board, meeting in Idaho Falls on July 25, adopted a resolution establishing that the public interest would be served by limiting new hydroelectric power generation water rights to a specific time period. The policy would guide A. Kenneth Dunn, Idaho Department of Water Resources' director, in conditioning the hydroelectric permits issued by the agency by including a renewal date. The permits would be for a term similar to licenses from the Federal Energy Regulatory Commission (FERC).

Most FERC hydropower generation

licenses are issued for 50 years, Dunn said. At the end of that time, the FERC licenses are reviewed.

The state of Idaho, however, has in the past issued hydropower generation water rights in perpetuity. As a result, the state and the public have had no opportunity to review them in light of changing technology or times.

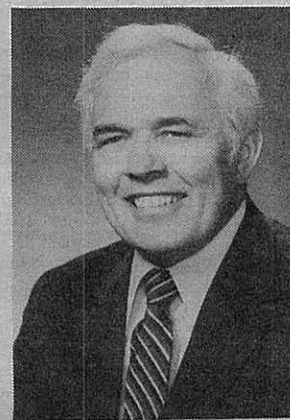
With the new policy adopted by the Idaho Water Resource Board, the IDWR director will issue hydropower water rights with a renewal date. At the time of renewal, the permits will be subject to review by the agency, much as FERC reviews the power

licenses it grants.

After the review, the state's hydro generation water rights could be re-issued, with a new renewal date, either with the identical or different conditions attached. The director would also be able to terminate the permits, either partially or completely, thus making some water available for other uses.

Because hydro generation permits often allow developers to appropriate the entire streamflow, even during spring runoff, the board felt a periodic review was necessary to protect the public interest. Although the time frame allowed on permits will be decided on a permit-by-permit basis, the backers of the projects will be given ample time to pay off loans and recoup their investments.

The complete text of the resolution passed by the Idaho Water Resource Board can be found on this page.



A. Kenneth Dunn
IDWR Director

BEFORE THE WATER RESOURCE BOARD OF THE STATE OF IDAHO

Conditions of Approval for Permits
and Licenses to Appropriate Water
For Hydropower Purposes.

RESOLUTION ADOPTING POSITION ON TERM PERMITS

WHEREAS, Article 15, Section 7, Idaho Constitution, empowers the Idaho Water Resource Board "to formulate and implement a state water plan for optimum development of water resources in the public interest. . ."; and

WHEREAS, the Water Resource Board adopted on December 29, 1976 and revised on January 19, 1982 a state water plan which allocates the unappropriated waters of the state to various uses in the public interest; and

WHEREAS, the Director of the Department of Water Resources is authorized by Section 42-203, Idaho Code, to issue permits to appropriate the unappropriated public waters of the state of Idaho if such permits are determined to comply with the criteria therein set forth, including a criterion requiring conformance with the local public interest; and

WHEREAS, Section 42-203, Idaho Code, authorizes the Director of the Department of Water Resources to condition water right permits to, among other considerations, insure that the local public interest is protected; and

WHEREAS, permits to appropriate water for hydropower purposes usually appropriate most of the flow of a water source, even during periods of peak runoff, and thereby have the potential for preventing upstream appropriations of water and thus precluding the opportunity to achieve the purposes of the allocations in the adopted state water plan; and

WHEREAS, the continuing evolution of local public interest requires that major commitments of the state's vital water resources remain subject to further review;

NOW, THEREFORE, THE IDAHO WATER RESOURCE BOARD HEREBY DECLARES AND RESOLVES AS FOLLOWS:

1. The position of the Idaho Water Resource Board is that the local public interest requires that all permits and licenses authorizing the diversion and use of waters of the state of Idaho for hydropower purposes be subject to review by the Director of the Department of Water Resources. Normally, the review should be made at the end of the operating period specified by the Federal Energy Regulatory Commission authorization or as otherwise provided by the Director of the Department of Water Resources. Pursuant to such review, the Director, upon appropriate findings, should renew the water right with its original priority date for the benefit of the project, with the same or different conditions, or should declare the right to be terminated in whole or in part.

2. This declaration with respect to fixed term permits is not intended to imply any restriction on the authority of the Director of the Department of Water Resources to impose in the local public interest a fixed term on permits and licenses for uses of water other than hydropower.

3. The Idaho Water Resource Board expresses its intent to review the above position concerning term permits at the next regularly scheduled review of the State Water Plan.

DATED THIS 25th day of July, 1984.

ATTEST: /s/ Franklin Jones
Secretary

/s/ Donald R. Kramer
Chairman

Energy education program earns EME national acclaim

A program used to promote greater understanding of energy issues in Idaho classrooms has won national recognition from the National Energy Resources Organization (NERO). The Washington, D.C. based group has named EME (Energy and Man's Environment), a 12-year old nonprofit organization, its 1984 Public Education Award recipient.

energy concepts: 1) sources of energy, 2) uses of energy, 3) conversion of energy from one form to another, 4) environment and economic impacts of energy development and use, 5) limited nature of the earth's natural resources, and 6) energy conservation and management.

EME operates under the assumption that knowledge is the catalyst of change. The organization's objective, said Dr. Wilma Jones, Idaho coordinator, is to help students achieve energy literacy—to help them use energy wisely and efficiently. If EME's premise (Continued on page 8)



EME's programs are used in Idaho classes to educate students from kindergarten through twelfth grade about energy issues and concepts. The materials maintain neutral position on energy issues, according to Dr. Edward Dalton, EME President. "Our purpose is not to advocate a particular energy policy, only to help teachers and students learn more about the nation's energy dilemma," Dr. Dalton said.

All of EME's instructional materials have been tested in the classroom and are regularly evaluated and refined. They may be used alone as an energy curriculum or used to supplement existing lessons. They focus on six basic

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State of Idaho
DEPARTMENT OF WATER RESOURCES
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ADMINISTRATOR'S MEMORANDUM

App. Processing No. 24 (Amended)

TO: Regional Offices and Water Allocation Section
FROM: Norman C. Young *NCY*
DATE: June 19, 1986 (Replaces version dated December 1, 1980)
RE: Approval of Permits for Power Purposes

Changes in Federal Energy Regulatory Commission (FERC) processing requirements have precipitated a modification in Department policy regarding applications for permit for hydropower*. This memorandum provides updated information regarding three unique aspects of hydropower applications: (1) current requirements of the Idaho Public Utilities Commission (PUC) and FERC; (2) Department processing guidelines for Applications for Permit; and (3) a method for calculating a reasonable rate of flow.

(1) CURRENT REQUIREMENTS OF THE PUC AND FERC

PUC

The determination of which power producers are subject to PUC regulation and which are not remains a complex issue. In general, the PUC regulates and requires applications from investor-owned utilities that market power, such as Idaho Power Company, or independent small power producers. Systems that are not regulated include those owned

* This memorandum is written specifically for hydropower use, and the terms power and hydropower are considered to be interchangeable herein. The use of water for purposes associated with thermal and nuclear power plants should be classified as cooling use, and an Application for Permit for this use is not subject to the provisions specified herein.

tabbies' Attachment
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by public entities (co-ops, municipalities, irrigation districts, etc.), private systems for personal use, and entities meeting the requirements of a qualifying facility (QF*) under PURPA**. If there is a question about jurisdiction in a specific instance, PUC will provide a letter stating their position.

Processing a PUC application requires a public hearing in most cases. Processing time by PUC is usually 3 months to 1 year, and final approval by PUC, in the form of the issuance of a Certificate of Public Convenience and Necessity (CPCN), can be completed prior to approval of the water right application by the Department.

*A QF is defined as a facility that:

- A. Is owned by an individual or a corporation (including municipalities), but not more than 50% of the equity interest in a facility may be owned by an electric utility.
- B. Produces electric energy primarily by use of a renewable resource (water power is considered to be a renewable resource at both new and existing dams).
- C. Has a power production capacity of no more than 80 megawatts.

**Public Utility Regulatory Policies Act of 1978

FERC

Water power development comes within FERC jurisdiction when the project:

- A. Is located on federal land, or
- B. Is located in or uses water from a navigable stream, or
- C. Uses water impounded by a federal dam, or
- D. Provides power to a FERC regulated (interstate) power grid.

Where FERC is found to have jurisdiction, frequently the first step toward project development is to obtain a preliminary permit from FERC. A preliminary permit requires minimal information and establishes filing priority for subsequent license or exemption applications. It is not an approval to begin construction, and is not required by FERC.

Project development approval can be obtained by securing either a license or an exemption. An exemption relieves the project of some FERC requirements. Exemptions are generally available for projects that do not use dams or that utilize an existing conduit originally built primarily for non-power purposes.

Three types of license applications are available -- a short form for all projects 5 MW or less, a slightly longer form for projects greater than 5 MW at existing dams, and a long form for major unconstructed or major modified projects greater than 5 MW. Processing times vary depending on the complexity and environmental impact of the projects and can range from several months to several years. A graphical representation of FERC filing categories is depicted in Attachment A.

A change in FERC processing is that in the past FERC required the project applicant to obtain an approved water right permit prior to issuing a FERC license, whereas now FERC will issue a license before a state water right is approved, contingent on the licensee obtaining state water right approval.

DEPARTMENT PROCEDURE WITH RESPECT TO FERC & PUC

The Department does not require FERC &/or PUC approvals to be prerequisites for issuance of a water right permit. However, many of the issues regarding local public interest that are evaluated by the Department are also evaluated by FERC &/or PUC. Thus, the Department normally does not take final action on an application for permit until the application for license or exemption or application for CPCN together with supporting documents have been filed with FERC &/or the PUC. An applicant, however, can request Department action on an application for permit prior to the application submittal to FERC &/or PUC if the applicant provides to the Department all of the information needed for the Department to evaluate the proposed project. Henceforth in this memorandum, in the situations where FERC &/or PUC have jurisdiction, the alternatives of providing either (1) an application for a CPCN from PUC &/or an application for license or exemption from FERC, or (2) information for the evaluation of the proposed project, will be identified as "PUC &/or FERC approvals or alternatives."

(2) DEPARTMENT PROCESSING GUIDELINES FOR APPLICATIONS FOR PERMIT

Rule 4 of the Department's Water Appropriation Rules and Regulations provide general considerations to be met by a hydropower applicant. In addition, special processing guidelines have been developed for power applications for permit based on (1) the potential for speculation, (2) Sections 42-205 thru 42-210, Idaho Code, (3) Idaho case law, and (4) interagency coordination. The guidelines are divided into regional office processing and state office processing as follows:

Regional Office Processing

- A. Upon receipt of an application for permit for hydropower use, the applicant should be advised, via either a documented conversation or correspondence, of the unique requirements for processing a hydropower water right. Requirements are as follows:

- 1. Requirements for All Power Applications

- a. An affidavit establishing residency and ownership of facilities (Form 205/206).

b. Information that shows whether or not the project will be regulated by FERC &/or PUC.

c. If the project will be regulated by FERC &/or PUC, FERC &/or PUC approvals or alternatives.

2. In the past, the Department basically considered power projects in either a small or large category based on certain criteria. The adopted water appropriation rules and regulations when considered with existing statutes suggest additional categories with different related requirements.

An application for permit (application) for 5 cfs or less and for an installed capacity of 0.37MW or less usually will require no additional information.

An application with a diversion rate greater than 5 cfs will require the submittal of all information described in Rule 4,5,3., Water Appropriation Rules and Regulations.

An application for 5 cfs or less but for an installed capacity of more than 0.37MW will require a financial statement.

An application for more than 25 cfs, or for an installed capacity of more than 5MW will require all of the information described in Rule 4,5,3., Water Appropriation Rules and Regulations in addition to an engineering design.

- B. In situations where FERC &/or PUC have jurisdiction, the conference/hearing for a protested application should be delayed until FERC &/or PUC approvals or alternatives are provided.
- C. Unprotested applications should be forwarded to the state office when all requirements have been met except FERC &/or PUC approvals or alternatives.

State Office Processing

- A. The state office should insure that documentation describing the completion of all requirements is in the file, with the exception of FERC &/or PUC approvals or alternatives.
- B. Applicants should be required by the state office to update the file on an annual basis regarding the status of obtaining FERC &/or PUC approval. An exception is that if the applicant receives approval of a preliminary permit, an update is not needed until the permit expires. The applicant must maintain applications with PUC &/or FERC in a valid status to be entitled to the Department processing delays described herein.

- C. Applications for permit that would be denied by the Director for reasons other than failure to receive approval from PUC &/or FERC will be denied at the earliest possible time and will not be held pending comments submitted by those agencies.

Attachment B shows standard conditions of approval which are associated with approvals for Applications for Permit for power purposes.

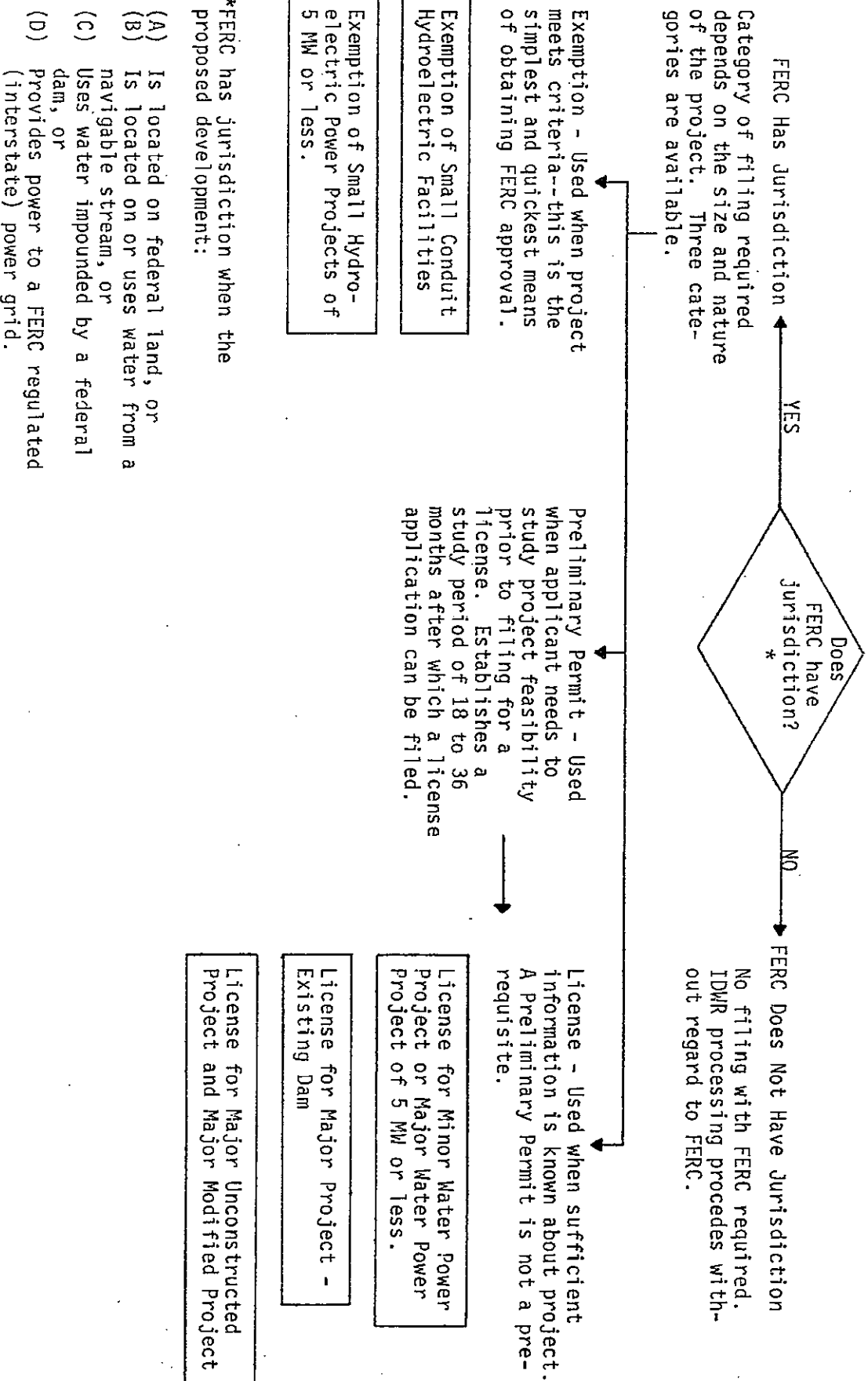
One unique aspect of power applications regards possessory interest. For most water right applications, the applicant must show some "vested interest", or "color of title" to the place of use before the application is deemed valid (see Lemmon v Hardy, 95 Idaho 778, 1974). However, an application for power may be an exception to this requirement since the place of use for power purposes can in some cases be obtained by the applicant through eminent domain after the water right has been obtained. Therefore, a power application may be approved even though possessory interest has not been demonstrated, if all other requirements are satisfied.

(3) FLOW CALCULATION

Attachment C entitled "Individual Hydropower Production" has been prepared to assist in the determination of a reasonable rate of flow based on (1) the power requirements of the applicant, (2) the type of hydroelectric system to be installed, and (3) available head. The instructions provide a basic method to assess the adequacy of flow requested, but this brief method should not be used to calculate final design flows. If the calculated flows are either much lower or much higher than those shown on the application, the applicant should be required to justify the rate of diversion shown.

ATTACHMENT A FERC Filing Categories

Each power project can be categorized at a unique location on this chart. Boxes represent categories for which FERC approval is normally required before IDWR issues a permit.



Source: Federal Energy Guidelines, FERC Statutes and Regulations, Vol. 1, Subchapter B - Regulations Under the Federal Power Act, Part 4, par 2,000 et seq.

ATTACHMENT B

* { A measuring device and lockable controlling works of a type acceptable to the Department shall be permanently installed and maintained as part of the diverting works.

The permit 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.

The issuance of this permit in no way grants any right-of-way or easement across the land of another.

Use of water under this permit is subject to control by the watermaster of State Water District No. <number and name>.

* This permit is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this permit. Failure to comply with these provisions is cause for immediate cancellation of this permit.

* Water used under this permit if discharged into a natural channel or subsurface system shall meet Idaho Water Quality Standards.

* { The diversion and use of water under this permit and any license subsequently issued is subject to review by the Director thirty-five (35) years from the date of issuance of this permit. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.

The diversion and use of water under this permit and any license subsequently issued is subject to review by the Director on the date(s) of expiration of any license issued by the Federal Energy Regulatory Commission. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.

* The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.

* This permit does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.

* Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.

* Use of water under this permit shall be non-consumptive.

A separate stream alteration permit from the IDWR is required for any activity in the stream channel other than construction and/or maintenance of the diversion structure. If your proposed construction or operation involves construction of an outfall or any other work in the stream channel other than a water diversion, you must contact the Department and obtain a Stream Channel Alteration permit prior to the start of construction.

Power apps from a groundwater source:

Water shall not be diverted solely for power production purposes, however, power may be produced utilizing water diverted for other uses.

*Conditions with an asterisk are used for every hydropower application approved by IDWR. Brackets signify alternative choices based on ancillary parameters.

ATTACHMENT C

INDIVIDUAL HYDROPOWER PRODUCTION

The following is an acceptable means of evaluating water requirements for planning a small scale hydropower facility. This method is general and intended to provide approximate results for use in filing a water right permit application for development of such a facility. Sizing and selection of equipment for installation is much more complicated and should not be attempted without proper technical guidance. Any one of the following four variables can be determined by mathematical or graphical methods providing the other three are known or assumed: (See Figure 1).

- 1) Power (kilowatts)
- 2) Gross Head (feet)
- 3) Design Flow (cubic feet per second)
- 4) Efficiency

Definition and Explanation of Terms

For turbines, pelton wheels and overshot water wheels, the above variables are defined as follows:

A) Power (P)

System power production capability or system capacity is the amount of electrical power that can be generated by the hydropower system. Power demand is the amount of electrical power that is required by the user to supply electrical appliances. In order to have an operational system, power production capability must be greater than or equal to power demand. Power is commonly measured in kilowatts.

Maximum power demand can be estimated by summing the demand of all electrical appliances that may reasonably be in use at one time. The demand requirements of individual electrical appliances can usually be obtained from power suppliers or are listed on the appliances. An estimate of normal household demand can also be obtained from the following table:

Table 1: Maximum Household Power Demand

Electrical Power Use	Demand (Watts/ft ²)
Lighting and refrigeration only	2
Lighting, refrigeration, water heating, cooking and clothes drying	4-7
Total electric home	10-15

Maximum power demand in watts can be computed by multiplying demand in watts per square foot by the home size in square feet. Divide by 1000 to convert watts to kilowatts.

B) Gross Head (H)

1) Pelton Wheel or Hydraulic Turbine

Gross head for a pelton wheel or hydraulic turbine is the total vertical elevation difference in feet between the upper end of the penstock and the lower end of the penstock.

2) Overshot Water Wheel

Gross head for an overshot water wheel is the total vertical elevation difference in feet between the bottom of the discharge flume and the water surface of the tail-water.

C) Design Flow (Q)

The flow in cubic feet per second (cfs) at which the system is designed to operate.

D) Efficiency (e)

The fraction of total hydraulic energy available that can be converted to electrical energy and delivered to the consumer. For estimating purposes, use .50 for pelton wheels and turbines and .40 for overshot water wheels.

EXAMPLE PROBLEM

Problem Statement

A person with a 2000 ft² total electric home has a stream near his house which flows a minimum of 15 cfs and has a vertical drop of 400 ft. in the mile upstream from his house. The person desires to supply all of the electrical requirements of his home with a hydro-power generating system. How much water does he need?

Solution

This will be a graphical solution using Figure 1 and assuming the use of a pelton wheel or hydraulic turbine system.

1) Determine home electrical power demand.

Using Table 1

$$\begin{aligned}\text{Maximum Demand} &= 2000 \text{ ft}^2 (15 \text{ watts/ft}^2) \\ &= 30,000 \text{ watts} = 30 \text{ kw}\end{aligned}$$

2) Assume System Efficiency

Since power is assumed to be generated by a pelton wheel or hydraulic turbine, a reasonable system efficiency might be 50%. Assume $e = .5$.

3) Determine $H \times Q$ Requirement to Produce the Desired Power

Enter the graph (Figure 1) at 30 kw. Cross to the 50% efficiency line and proceed down to the lower axis and find $H \times Q = 708$.

4) Select a Head and Solve for the Flow

$H \times Q = 708$; therefore

$$Q = \frac{708}{H}$$

If $H = 400$ ft.; $Q = \frac{708}{400} = 1.8$ cfs

If $H = 200$ ft.; $Q = 3.5$ cfs

If $H = 50$ ft.; $Q = 14.2$ cfs

(It should be noted that there are an infinite number of possible solutions for $H \times Q = 708$ that provide 30 kw of power.)

FIGURE 1: GRAPHICAL SOLUTION OF HYDRO POWER PROBLEMS

