



## SOUTHEAST ALASKA POWER AGENCY

### Special Board Meeting AGENDA

SEAPA Offices | Ketchikan, Alaska

**Tuesday, November 3, 2015 | 10:00 a.m. AKST**

**For Telephonic Participation: Dial 1-800-315-6338 (Access Code: 73272#)**

1. Call to Order
  - A. Roll call
2. Approval of the Agenda
3. New Business
  - A. Consideration and approval of award of contract to Kuenz America, Inc. for the Swan Lake Reservoir Expansion Project (Spillway Flashboards)
  - B. Consideration and approval of a sole source Purchase Order Contract to Andritz for TSV Replacement Valves
  - C. Executive Session for discussion on Legal Matters Re Bell Island
4. Adjourn



**SOUTHEAST ALASKA POWER AGENCY**  
SWAN LAKE RESERVOIR EXPANSION PROJECT  
(SPILLWAY FLASHBOARDS)

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**Date:** October 20, 2015  
**To:** Trey Acteson, Chief Executive Officer  
**From:** Eric Wolfe, P.E., Director of Special Projects  
**Subject:** Swan Lake Reservoir Expansion Project (Spillway Flashboards)

On September 18, 2015, bids were solicited from qualified firms for the design and fabrication of a set of spillway flashboards, and for installation quality control with an option to install the flashboards at Swan Lake for SEAPA's Swan Lake Reservoir Expansion Project.

Bids were due on October 19. One bid was received from Kuenz America, Inc. The following criteria was used in the evaluation process: (i) experience carrying out difficult construction/assembly projects in remote settings; (ii) experience managing and executing design of hydraulic structures; (iii) appropriateness of the proposed general approach to the work; (iv) capacity to respond to the required work in a timely and efficient manner; (v) competitive pricing; and, (vi) completeness and quality of bid proposal documents. After careful evaluation of the bid, staff recommends award of the contract to Kuenz America, Inc. and will more fully expound on the vetting process during the board meeting.

The engineer's estimate for this grant-funded project was \$624,000. Kuenz' cost estimate based on the bid criteria is \$535,800. Staff recommends adding \$27,000 for shipping, a 15% contingency on fabrication (\$40,650) and \$36,207 (6% for Euro Exchange volatility).

Please consider the following suggested motion:

SUGGESTED MOTION
<b>I move to authorize staff to enter into a Contract with Kuenz America, Inc. for SEAPA's Swan Lake Reservoir Expansion Project (Spillway Flashboards) for the value of \$535,800 plus shipping and contingency for fabrication and monetary exchange rates of \$103,857 for the total not-to-exceed value of \$639,657.</b>



**SOUTHEAST ALASKA POWER AGENCY**  
TURBINE SPHERICAL VALVES  
(REPLACEMENT VALVES)

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**Date:** October 20, 2015  
**To:** Trey Acteson, Chief Executive Officer  
**From:** Eric Wolfe, P.E., Director of Special Projects  
**Subject:** Tyee Lake Turbine Spherical Valves

That attached report on the Tyee Lake Turbine Spherical Valves (TSV) provided at the September 13-14, 2015 board meeting explains the history leading up to this request for the board's consideration of a sole source award for replacement valves from Andritz Hydro Corporation.

Staff spent months researching procurement alternatives with HDR for equivalent and less expensive components made in the USA for this project. Unfortunately, we could not find equivalent valves that did not leak. Escher-Wyss-Bell (now known as Andritz), is the original manufacturer/supplier and the sole source provider for the replacements we need. Andritz provided a quote on October 9<sup>th</sup> for \$147,300 for five different sets of solenoids valves. Section 8.1 of SEAPA's procurement policy provides that competitive bidding is not required "When the improvement can only be provided by a single contractor; or when supplies, materials, equipment or contractual services can be furnished only by a single dealer, and have a uniform price wherever purchased". There is a very long lead time for ordering the replacement valves and the current quote from Andritz is only valid through November 7, 2015. Board authorization is requested by staff for a sole source Purchase Order contract with Andritz for \$147,300 before their prices increase. We also need to add a contingency of \$1,400 for shipping, handling, and import duty fees. Replacement valves were last purchased in the mid-1990's.

The Board approved \$274,500 in the FY 2016 budget for this project. There is approximately \$200,000 remaining in the budget for this R&R project.

The following is a suggested motion:

<b>SUGGESTED MOTION</b>
<b>I move to authorize staff to enter into a sole source Purchase Order Contract with Andritz Hydro Corporation for replacement valves for SEAPA's Turbine Shutoff Valves Project for the value of \$147,300, plus shipping and import duty fees of \$1,400 for a not-to-exceed value of \$148,700.</b>

Attachment:  
2015 09-14/15 DSP Report on TSV

## Tyee Lake Turbine Spherical Valve (TSV)

### History

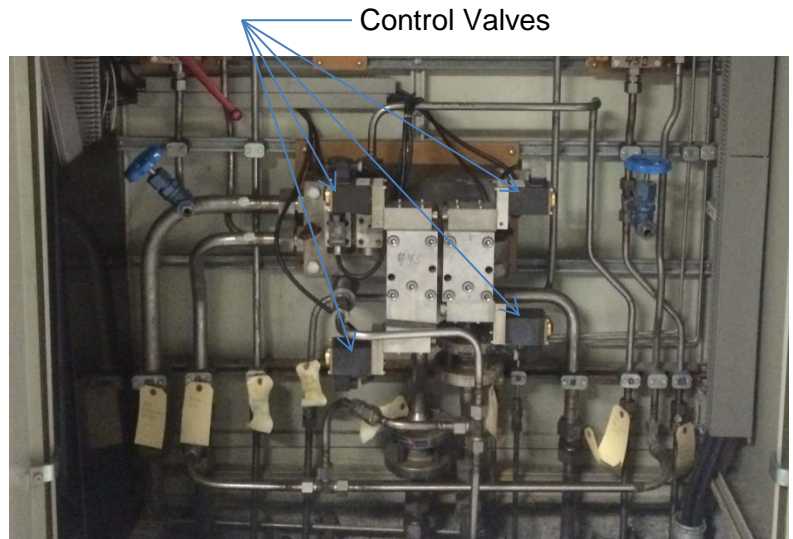
The Tyee turbine spherical valves provide protective isolation for the turbine from the penstock. The design intent of the valve is two-fold: 1) isolate the penstock from the turbine for maintenance, and 2) provide a means to stop water flow in the event the turbine nozzles and deflectors are inoperable during a “run-away” condition. The TSV is large, extremely stiff, of close tolerance, and driven by a water powered toroidal cylinder. TSVs are opened and closed using a system of smaller control valves that in turn are electrically controlled.

### Original Issue Requiring Fix

Over the years the control valves have failed and been repaired or replaced, and corrosion and biological growth have fouled small passages. Often the TSVs will go for months without operation as moving the valves requires generator shutdown; this adds to the fouling problem. During the past two years, Tyee operators complained of poor valve opening and closing response. During late 2014, we solicited proposals to develop options for reliable long-term valve operation; the options list included everything from clean & repair the existing control components (and buy spare parts) to completely changing the controls to an oil driven system rather than using the existing penstock water system.

### Contract and Solution

SEAPA retained HDR, who completed a site inspection including operational testing in January 2015. They submitted a draft report in March and a final report this past August. Delay in issuing the final report was caused by turbine supply company, Andritz, who owns the rights to components originally supplied by Escher-Wyss-Bell (Bell is the original manufacturer). As part of the final report we asked HDR to specify replacements of the control valves and to get an estimate for OEM replacements. Getting a quote for the correct replacement control valves proved daunting, and time consuming. In addition to the communication delay, the quotes were ex-pensive (\$10,000 per control valve) which forced us to look for equivalent components made in the USA. Because the control valves are high pressure, and therefore of close tolerance, we could not find equivalent valves that would not leak. The final report action items are listed below:



**Figure 1- Internal view of TSV cabinet with the principal control valves identified.**

- Filters upstream of the control valves will have piping added to isolate the filters such that during inspection/maintenance pressure spikes from the source 600 psi water will not damage the filters (pressure/flow gradually transitions)
- Spare control valves should be purchased and the current control valves returned for refurbishment. Using this approach, future outages will be of short duration while suspect valves are replaced with onsite spares

- The stuck bypass valve on Unit #1 is to be removed during September 5-6 and replaced with a manual valve. After an onsite inspection, if an overhaul is required as compared to cleaning and new O-rings installed, the bypass valve is to be shipped to a qualified shop
- Controls - SEAPA requested a piping design for manual control; this modification was reviewed and piping drawings received. Time delay relays will be retained but the timing made consistent with original commissioning values, and pressure gages will be added to existing control piping to verify control valve actuation
- SEAPA requested a review of the TSV close criteria. This was reviewed, the TSV is closed if:
  - a governor failure occurs (over-speed, loss of oil level, or loss of oil pressure)
  - Operator command at the TSV cabinet; remote TSV operation from the control room is to be removed. Control diagrams and instructions are pending from HDR

**MEMORANDUM  
ATTORNEY-CLIENT COMMUNICATIONS**

TO: John Jensen, Chairman  
Southeast Alaska Power Agency

FROM: Joel R. Paisner, Ascent Law Partners, LLP

DATE: October 20, 2015

RE: Suggested Motion for Executive Session for November 3, 2015

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To the extent that the Board of Directors seeks to discuss legal matters concerning Bell Island in Executive Session, I recommend the following motion be made:

I move to recess into Executive Session to facilitate discussions relating to Bell Island. The Executive Session will be conducted pursuant to SEAPA's Bylaws, which are consistent with Alaska Statute 44.62.310 as the discussions will involve matters that will have an immediate impact on the finances of the Agency, as well as matters to be discussed with an attorney retained by the board, which could have an adverse effect on the legal position of the Agency.