

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND AND WATER

**FRANK H. MURKOWSKI,
GOVERNOR**

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September 8, 2006

CERTIFIED MAIL

Alaska Gold Company
P. O. Box 640
Nome, Alaska 99762-0640

Attention: Mr. Douglas C. Nicholson

**RE: CERTIFICATE OF APPROVAL TO CONSTRUCT A DAM
ROCK CREEK TAILINGS STORAGE FACILITY DAM (AK00309)**

Dear Mr. Nicholson:

The Dam Safety and Construction Unit of the Alaska Department of Natural Resources is pleased to issue to Alaska Gold Company the final *Certificate of Approval to Construct a Dam* for the proposed Rock Creek Tailings Storage Facility (TSF) Dam at the Rock Creek Mine Project.

The certificate includes standard terms and conditions, as well as the special conditions listed in Attachment B to the certificate, as agreed upon in our recent communications.

Please note that the Rock Creek TSF Dam is assigned the unique number AK00309 for identification in the Alaska Dam Inventory and the National Inventory of Dams (NID). Please reference this number in any future correspondence related to the dam, such as annual inspection reports.

Thank you for your cooperation with the Alaska Dam Safety Program. Your attention to this important aspect of the Rock Creek Mine Project is appreciated. I look forward to visiting the project site during the construction of the Rock Creek TSF Dam.

Sincerely,

/s/

Charles F. Cobb
State Dam Safety Engineer

Attachments: *Certificate of Approval to Construct a Dam* Number FY2007-4-AK00309

cc: Ryan Baker, Smith Williams Consultants
State of Alaska Large Mine Project Team

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“Develop, Conserve and Enhance Natural Resources for Present and Future Alaskans”

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING AND WATER MANAGEMENT

DAM SAFETY AND CONSTRUCTION UNIT



Certificate of Approval to Construct a Dam

The **State of Alaska** under AS 46.17, and the regulations adopted under this statute, grants to:

Alaska Gold Company

The approval to construct the following structure near **Rock Creek** (off channel) in accordance with the terms and conditions contained in this certificate:

Rock Creek Tailings Storage Facility Dam (NID ID#AK00309)

The location of this project is: T10S, R34W, S23 and S26, Kateel Meridian

The holder of this certificate shall:

- Construct the dam and appurtenance works in accordance with the construction documents approved by the Department concurrent with this certificate and listed in Attachment A.
- Except for claims or losses arising from the negligence of the State, defend and indemnify the State against, and hold it harmless from any and all claims, demands, legal actions, loss, liability and expense for injury or death of persons, and damages to or loss of property, arising out of or connected with the exercise of the approval granted by this certificate.
- Comply with all applicable laws, regulations and conditions.
- Allow representatives of the Department to inspect the work and records covered by this certificate at all times determined necessary by the Commissioner.
- Follow special conditions that apply to the construction and operation of this dam as found in Attachment B, attached hereto and made a part hereof.

CERTIFICATE OF APPROVAL TO CONSTRUCT A DAM
Rock Creek Tailings Storage Facility Dam

This *Certificate of Approval to Construct a Dam* is granted subject to the pertinent statutory provisions in AS 46.17 and the Administrative Regulations in Article 3 of 11 AAC 93.

APPROVED BY: Charles F. Cobb
TITLE: State Dam Safety Engineer
SIGNATURE: *Charles F. Cobb*
DATE: *Sept. 8, 2006*

State of Alaska)
) SS.
Third Judicial District)

This is to certify that on *September 8*, 2006, before me appeared Charles F. Cobb, known by me to be the Director or Authorized Representative of the Dam Safety and Construction Unit of the Division of Mining, Land and Water, Alaska Department of Natural Resources, and acknowledged to me that this Certificate of Approval was voluntarily executed on behalf of the State of Alaska.



Michael Walton
Notary Public in and for the State of Alaska
My Commission expires: *March 5 2008*

**CERTIFICATE OF APPROVAL TO CONSTRUCT A DAM
Rock Creek Tailings Storage Facility Dam**

Attachment A – Approved Construction Documents

DRAWINGS

Rock Creek Project
Tailings Storage Facility
Issued for Construction Drawing Package
Revision 0, dated August 2, 2006
(41 sheets)

SPECIFICATIONS

Rock Creek Project
Tailings Storage Facility
Issued for Construction Specification Package
Revision 0, dated August 2, 2006
 Technical Specifications for Earthworks Materials and Construction
 Technical Specifications for Geomembrane Material and Installation
 Specifications for Geosynthetic Material and Installation
 Technical Specifications for Corrugated Polyethylene Pipe Material and
 Installation
 Technical Specifications for High Density Polyethylene Pipe Material and
 Installation

CONSTRUCTION QUALITY CONTROL

Rock Creek Project
Tailings Storage Facility
Quality Control Manual for Earthworks and Geosynthetics
Revision 0, dated August 2, 2006

End of Attachment A

CERTIFICATE OF APPROVAL TO CONSTRUCT A DAM
Rock Creek Tailings Storage Facility Dam

Attachment B – Special Conditions

1. This certificate approves the construction of the Rock Creek Tailings Storage Facility (TSF) Dam to an ultimate crest elevation not to exceed approximately 196.9 feet as indicated in the drawings listed in Attachment A. The dam will be constructed in three stages as described in the Rock Creek Project Tailings Storage Facility Detailed Design Report dated April 12, 2006 (Reissued August 3, 2006). The reference plane for the crest elevation is the level surface of the embankment along the western edge of the TSF, not including road fill or safety berms.
2. After Stage 1 construction is complete, and for all subsequent stages, the Rock Creek TSF Dam is to be operated in accordance with the requirements of Article 3 of 11 AAC 93 as a Class II (significant) hazard potential classification dam as defined in 11 AAC 93.157, under the condition that the maximum allowable storage volume of free water is included in the operations and maintenance manual required under Special Condition 9. The maximum allowable storage volume of free water must be based on the maximum volume used in the dam failure analysis and continuously consider the operational water requirements and the tailings volume, while preserving sufficient surge capacity for the inflow design flood volume and the minimum freeboard.
3. Before 2 weeks prior to beginning foundation excavation, submit to the Department a schedule for construction that includes all major components of the dam and appurtenances including excavation, grading, fill, drain and pipe installation, geosynthetic materials, and diversion ditches, as well as mandatory inspection points that must be completed before additional construction occurs. Submit a revised construction schedule for any substantial deviations from the schedule previously submitted to the Department.
4. Before 2 weeks prior to beginning foundation excavation, submit to the Department a construction water diversion plan that describes plans for controlling surface, subsurface and excavation water as required to assure the safety of the construction.
5. Before 2 weeks prior to beginning foundation excavation, submit to the Department an erosion and sediment control plan for the period of construction. This document may be the same as the Storm Water Pollution Prevention Plan prepared under other regulatory requirements.
6. All work associated with the construction of the dam and appurtenances must be observed and inspected by an engineer qualified in accordance with 11 AAC 93.193(c), for compliance with the approved drawings, specifications and quality control manual listed in Attachment A, and for developing the construction completion report required under Special Condition 9.
7. If any conditions are encountered which require substantial deviations or change in the design from the approved drawings and specifications listed in Attachment A, the deviation or change must be approved in writing by the design engineer. Any changes that could affect the safety of the dam must be approved in writing by the Department before implementing the deviation or change.
8. For each stage of construction, the foundation area under the dam (including the liner system cut off trench) shall be inspected and approved by a qualified professional geologist or geological engineer, after the overburden and weathered bedrock are removed and prior

CERTIFICATE OF APPROVAL TO CONSTRUCT A DAM
Rock Creek Tailings Storage Facility Dam

to the placement of any fill or geosynthetic materials. A geologic map containing bedrock types, fractures, faults, and other pertinent information must be prepared and certified by the professional geologist or geological engineer, and included in the construction completion report required under Special Condition 9.

9. Submit the following post-construction documentation, within approximately 30 days of substantial completion of each stage of the three stages of the project:
 - Construction completion report prepared in accordance with the requirements of 11 AAC 93.171(f)(6)(A) and including design change details and approvals
 - An operation and maintenance manual prepared in accordance with the requirements of 11 AAC 93.197 and revised to reflect the current operating configuration of the dam. The operations and maintenance manual must include the maximum storage volume based on the value used in the dam failure analysis and provide for the design storm and freeboard.
 - An emergency action plan developed in accordance with the requirements of 11 AAC 93.164.
10. A *Certificate of Approval to Operate a Dam* is required after construction of each stage is complete. A *Certificate of Approval to Operate a Dam*, including any pertinent terms and conditions, will be issued by the Department upon review and approval of the submittals required under the previous condition. No additional water may be impounded behind the newly constructed or modified dam until a *Certificate of Approval to Operate a Dam* is issued.
11. Commence construction by the first day of June of the second calendar year after the date of this certificate. If construction does not begin by this date, an updated application must be submitted for review and approval by the Department, including application fees required under 11 AAC 05.010.
12. Notify the Department in writing of the date of substantial completion for each stage, within one week after that date occurs.
13. No later than the third year after beginning the operation of the Rock Creek TSF Dam, submit an application for a *Certificate of Approval to Abandon a Dam* in accordance with the requirements of 11 AAC 93.172; or, submit a proposed scope of work and schedule for a periodic safety inspection of the dam and appurtenances in accordance with 11 AC 93.159.
14. After beginning operation of the Rock Creek TSF Dam, a report by a qualified engineer on the performance of the dam and its operational procedures must be provided annually.

End of Attachment B

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