

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND AND WATER

DAM SAFETY AND CONSTRUCTION UNIT



Certificate of Approval to Operate a Dam

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

Teck Alaska Incorporated

The approval to operate the following structure on **Bons Creek** in accordance with the terms and conditions contained in this certificate:

Red Dog Water Supply Dam (NID ID#AK00200)

The location of this project is: T30N, R19W, S1&2, Kateel River Meridian

The holder of this certificate shall:

- Operate and maintain the Red Dog Water Supply Dam and appurtenant works in accordance with accepted practice and the document titled, "Operation and Maintenance Manual Revision 7, Water Supply Dam, Red Dog Mine, Alaska" dated April 17, 2020.
- Except for claims or losses arising from 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 operation of this dam presented in Attachment A, attached hereto and made a part hereof.

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COPY

CERTIFICATE OF APPROVAL TO OPERATE A DAM
Red Dog Water Supply Dam

This *Certificate of Approval to Operate a Dam* supersedes any other *Certificate of Approval to Operate a Dam* for the Red Dog Water Supply Dam and shall become invalid on the expiration date specified in Attachment A. A new certificate shall be issued with revised special conditions based on information contained in the most recent Periodic Safety Inspection Report approved by the Department, and dam safety regulatory standards current at the time of the inspection.

This *Certificate of Approval to Operate 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: Thomas R. Barrett C.P.G.

TITLE: Chief of Water Resources Section
 Division of Mining, Land and Water

SIGNATURE: Thomas R. Barrett

DATE: April 30, 2021

State of Alaska)
) SS.
Third Judicial District)

This is to certify that on April 30, 2021, before me appeared Thomas R. Barrett, known by me to be the Authorized Representative 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.

HENRY C. BROOKS
Notary Public
State of Alaska

Henry C Brooks
Notary Public in and for the State of Alaska

My Commission expires: with office

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CERTIFICATE OF APPROVAL TO OPERATE A DAM
Red Dog Water Supply Dam

Attachment A – Special Conditions

1. The Red Dog Water Supply Dam (AK00200) is approved to operate as a Class II (Significant) hazard potential dam as defined in 11 AAC 93.157 at a nominal crest elevation of 858.3 feet.
2. Operate, monitor, inspect and maintain the Red Dog Water Supply Dam in accordance with best practices and the procedures described in the , “Operation and Maintenance Manual Revision 7, Water Supply Dam, Red Dog Mine, Alaska” dated April 17, 2020. (O&M Manual). Inspect the dam and appurtenant works after all significant seismic or precipitation events. Maintain records of all inspections, monitoring data, and routine maintenance.
3. Document any routine operations and maintenance procedures that deviate from or are not included in the current version of the O&M Manual. Review the O&M Manual concurrent with each Periodic Safety Inspection and revise as necessary.
4. An annual instrumentation report shall be submitted to the Department which shall include, but not be limited to, seepage, water level, and survey data. The report shall be in summary form and in a format approved in advance by the Department. The annual instrumentation report is due by March 31 of each year.
5. Perform a Periodic Safety Inspection (PSI) on the dam and appurtenant works in accordance with the requirements of 11 AAC 93.159. The next PSI is due by August 1, 2023 and must be performed by an engineer qualified in accordance with 11 AAC 93.193(b). Submit the proposed scope of the inspection and qualified engineer for Department approval at least 60 days in advance. Submit a draft PSI report to the Department for review within 60 days of the visual inspection of the dam.
6. An Emergency Action Plan (EAP) shall be developed and maintained in accordance with the requirements of 11 AAC 93.164. The EAP may be included in the O&M Manual, as provided under 11 AAC 93.164(e) for a Class II dam or in a project wide EAP. The EAP shall be reviewed, exercised, and revised in accordance with the following schedule:

Frequency	Year Required	Action
Annually	2021, 2022, 2023	Internal review
Annually	2021, 2022, 2023	Orientation exercise with all responsible parties
Annually	2021, 2022, 2023	Revise as needed and distribute updated pages
Biennially	2021	Drill exercise (Internal responsible parties)
Triennially	2022	Table top exercise with all responsible parties
Triennially	2022	Revise and distribute to all responsible parties

CERTIFICATE OF APPROVAL TO OPERATE A DAM
Red Dog Water Supply Dam

The drill exercise is not required in the same year as the table top exercise. EAP exercises must include responsible parties listed in the plan and as indicated in the schedule. Provide written notice to the Department within 14 days after every EAP exercises.

7. Notify the Department immediately if the EAP is activated, or within 24 hours for any significant issues that may develop with the dam or appurtenant works which could affect the safety of the dam. An incident report shall be completed and submitted to the Department in accordance with 11 AAC 93.177 within 14 days after the conclusion of the incident.
8. Notify the Department within 24 hours for any significant problems that may develop which could affect the safety of the dam. An incident report shall be completed and submitted to the Department in accordance with 11 AAC 93.177 within 14 days after the conclusion of the incident.
9. For any modifications, major repairs, removal, abandonment of the dam, or transfer of ownership, an application for a certificate of approval must be submitted to the Department.
10. This *Certificate of Approval to Operate a Dam* expires on on September 30, 2023.

End of Attachment A

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