

Date: October 13, 2017

To: Nevada Mining Association

From: Joe Sawyer, Chief, Bureau of Mining Regulation and Reclamation

Subject: BMRR Draft Regulations for Informal Comment

Proposed revisions to BMRR Regulation and Reclamation regulations shown in attached.

[xxxxxx] would be material to be removed

Xxxxxx would be material to be added

A brief description of rationale for proposed revision is included with each regulation change

NAC 445A.3505 “Abandoned” defined. “Abandoned” means the condition in which a permitted facility that has not completed permanent closure and has the potential to degrade waters of the State is left unmanned and is unresponsive to Department communication.

Rationale for change – The Department has experience with several abandoned chemical processing mine facilities that have been left with toxic solutions, chemicals, and/or other conditions that are potentially hazardous to human health, wildlife, and/or the environment or violate other regulations. This definition is added to support the proposed changes to NAC 445A.444 and 445A.445.

NAC 445A.359 “Facility” defined. (NRS 445A.425, 445A.465) “Facility” means all portions of a mining operation, including, but not limited to, the mine, waste rock piles, ore piles, beneficiation process components, processed ore disposal sites, and all associated buildings and structures. The term does not include any process component or nonprocess component which is not used for mining or mineral production, and has not been used in the past for mining or mineral production as part of an operation which is active as of September 1, 1989.

Rationale for revision of NAC 445A.359. This regulation contains a typo instead of “or piles” it should state “ore piles”. This covers the need to regulate ore piles and ore stockpiles that may contain reactive rock that if not managed appropriately could degrade waters of the state.

NAC 445A.367 “Permanent closure” defined. (NRS 445A.425, 445A.465) “Permanent closure” means that time in the ~~operating~~ life of a facility when activities for the final stabilization, removal or mitigation of sources are ~~initiated~~ undertaken.

Rationale for revision of NAC 445A.367. The term “operating life” of a facility is generally considered to apply only to the period during which beneficiation of ore occurs. Closure activities may occur at any time in the life of a mining facility, not just during the operating life. The Division has found that additional permanent closure actions are sometimes necessary to protect waters of the State at facilities that had previously completed permanent closure activities but were later found to be not yet chemically stabilized. The word “initiated,” is unclear and conflicts with how the term “permanent closure” is used in NAC 445A.446 regarding when permanent closure is complete and when the post-closure monitoring period starts. It is more consistent with NAC 445A.446 if permanent closure is defined to refer to the entire period during which closure activities are undertaken than just when those activities are initiated.

NAC 445A.383 “WAD cyanide” defined. (NRS 445A.425, 445A.465) “WAD cyanide” means the weak acid dissociable cyanide concentration as determined by one of the following methods:

1. ASTM D2036-082, Method C, ~~Weak Acid Dissociable Cyanide, D2036-082, Part 31 of American Society of Testing Materials Book of Standards;~~
2. ASTM D2036-06, Method C, Parts 16.2, 16.3, and 16.4;
3. Standard Method (SM) 4500-CN-I; or
4. Another method approved in writing by the Department and scientifically demonstrated as being equivalent to one of the above methods.

Rationale for the change – Due to concerns expressed by Nevada certified laboratories and Permittees regarding the superseded ASTM method D2036-082, Method C, Part 31, which is currently required in NAC 445A.383, on March 7, 2011, the Deputy Administrator of the Department’s Division of Environmental Protection (NDEP) issued a letter to all Water Pollution Control Permittees. The Laboratory Certification Branch of the NDEP’s Bureau of Safe Drinking Water was consulted prior to issuance of the March 7, 2011 letter. The letter stated that it had compared the two methods listed above in proposed new subsections 2 and 3 with the original but now superseded WAD cyanide method listed in subsection 1 above, and had determined that they are essentially the same. Therefore, those methods have been accepted by NDEP ever since for the determination of WAD cyanide. Proposed subsection 4 will allow NDEP’s Bureau of Mining Regulation and Reclamation, in coordination with the Laboratory Certification Branch of the Bureau of Safe Drinking Water, to consider similar determinations in the future as other minor changes to the WAD cyanide method arise (e.g., new analytical instruments, new data management technology, etc.). The Department’s intent is to retain the WAD cyanide method, but to allow reasonable flexibility to accept other methods if they are rigorously demonstrated to be equivalent.

NAC 445A.3835 “Waste Rock” defined. “Waste Rock” means a naturally occurring material that is mined as part of the process to reach the ore but from which a metallic mineral of economic value cannot be extracted at the time that it is mined.

Rationale for creation of NAC 445A.3835 – Waste rock is referenced in the proposed revision of NAC 445A.398, and also typically in Permits issued by the department. Proper characterization and management of waste rock is an important aspect of preventing degradation of waters of the

State by mining facilities. Waste rock should be defined to avoid confusion regarding what materials are being referred to by NAC 445A.398.

NAC 445A.398 Contents of application: Proposed operating plans.

The proposed operating plans for a facility must include:

1. A description of the mineral processing circuit which includes a flow chart of the facility and the range of operating conditions for which the process components were designed.

2. A plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. The plan must provide a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded.

3. A plan for monitoring the facility which describes:

- (a) The water quality in the area;
- (b) The monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility;
- (c) An analytical profile of each surface and groundwater that may be affected by the operation of the facility; and
- (d) The locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples.

4. A waste rock management plan which:

- (a) Presents representative characterization data and sample locations from the waste rock that will be mined by the facility;
- (b) Provides an evaluation of the potential for the waste rock to degrade waters of the State;
- (c) Describes the size and location of all proposed waste rock storage facilities; and
- (d) Describes the sampling and analysis protocols that will be used to verify the character of the waste rock once it is mined by the facility.

If the characterization data indicate the potential to degrade waters of the State, the waste rock management plan must describe management protocols and/or engineered containment that will be used to eliminate the potential over the short term and long term.

5.4 A plan for responding to emergencies which:

- (a) Describes what actions must be initiated and by whom as a result of various possible failures in the fluid management system which would result in releases of pollutants; and
- (b) Is designed to minimize the environmental impact resulting from the release of process fluids.

6. ~~5.~~ A temporary closure plan resulting from conditions described in subsection 1 of NAC 445A.444 which describes the activities which must be maintained during the time of closure.

7. ~~6.~~ A tentative plan for the permanent closure of the facility which describes the procedures, methods and schedule for stabilizing spent process materials and all other sources. The plan must include:

- (a) Procedures for characterizing spent process materials as they are generated; and
- (b) The procedures to stabilize all process components with an emphasis on stabilizing spent process materials and the estimated cost for the procedures.
- (c) The preliminary conceptual closure cover designs, stormwater controls, and water management plans and facilities adequate for initial reclamation and closure cost estimation.

Rational for change to NAC 445A.398 Over the years a greater understanding of closure requirements and long term planning have shown the need for a higher level of closure planning during the initial mine development to assist with long term bond cost estimates for larger process components at mining facilities. Conceptual closure designs can be utilized for bond cost estimates during project startups and then refined over time during 3 year reclamation cost updates.

NAC 445A.402 Notice of intent to issue permit or deny application. (NRS 445A.425, 445A.465, 445A.590)

1. The Department shall, at least 30 days before the issuance of a permit or denial of an application:

(a) Circulate a public notice in a manner intended to inform interested and potentially interested persons.

(b) Cause to be published **on an internet website designed to give general public notice** ~~in a newspaper of general circulation within the geographic area of a proposed facility~~, a notice of the intent to issue the permit or deny the application.

(c) Mail to the applicant and the landowner, if other than the applicant, members of the board of county commissioners of the county in which the facility is to be located, the Division of Minerals, the Division of Water Resources of the Department, and any other person or group who so requests, written notice of the intent to issue a permit or deny the application.

2. Notice given pursuant to subsection 1 must include:

(a) The name, address and telephone number of the Department;

(b) The name and address of the applicant;

(c) The location of the proposed facility;

(d) The tentative decision of the Department to issue a permit or deny the application;

(e) A description of the procedure for:

(1) Making a final decision, which must include 30 days for interested persons to submit to the Department written comments on the tentative decision to issue a permit or deny the application; and

(2) Requesting a public hearing, if one has not been scheduled; and

(f) The specific location where interested persons may obtain further information or inspect and copy the draft permit, statement and fact sheet, and other relevant forms or documents.

Rational for change – This revision will significantly improve communication with the public on permit actions by allowing for information to be made available for an extended period on a dedicated website in comparison to a one-day newspaper notice, which will result in broader and better informed public participation. Public access will be improved by making actions immediately available through convenient and reliable electronic media outlets. E-notice will also provide flexibility for the Division by avoiding time delays associated with newspaper publication and allowing for faster correction of errors and rescheduling of events. Additionally resources currently being spent by the Division will be more efficiently used by removing the public notice newspaper requirements. The Division has only received comments from Newspaper posting on very rare occasions. The Division maintains an electronic mailing list with approximately 200 interested individuals including private and government entities. It is possible for interested parties to sign up on the Division website to be included on the mailing lists. All public notices are

forwarded to the electronic list which generates the bulk of our comments. By bypassing the newspaper requirement and posting on the internet both time and money will be saved by the Division and there will be a slight reduction in the associated Permitting timeline. Many local papers in rural parts of Nevada only print during limited time periods on a weekly or bimonthly basis. Coordinating the permit action with a newspaper timing can delay permitting activities for up to one to two weeks.

NAC 445A.409 Issuance and maintenance of permit; maximum term and renewal of permit. (NRS 445A.425, 445A.465, 445A.495)

1. If an application is approved, a single permit must be issued for the construction, operation and closure of the facility. A valid permit must be maintained until permanent closure, and post-closure monitoring pursuant to NAC 445A.446, subsection 3, are complete, and the Department has terminated the permit in writing.

2. A permit may be issued for a maximum term of 5 years, at which time the holder of the permit may apply for renewal.

Rationale for change – This revision corrects an inconsistency regarding the usage of the term “permanent closure.” Pursuant to the definition at NAC 445A.367, permanent closure does not include the period for post-closure monitoring, which is introduced at NAC 445A.446. This revision clarifies that a permit must be maintained not only until permanent closure is complete, but must continue to be maintained during the post-closure monitoring period. This is important because the permit lays out the monitoring requirements that must be followed during the post-closure monitoring period. For this reason, the Department has long required permits to be maintained during post-closure monitoring until the permit is terminated, but this regulation change would formalize this requirement and remove an apparent contradiction in the regulations. This regulation change also formally establishes that a permit is still in effect until the Department terminates it in writing, which has also been a longstanding policy of the Department.

BMRR proposes to remove the following 3 regulations related to pilot facilities.

~~**NAC 445A.411 Pilot facility or testing facility: Conditions for issuance of permit.** (NRS 445A.425, 445A.465) — The Department may issue a permit to construct, operate and close permanently a pilot facility or testing facility if:~~

- ~~1. The facility is to evaluate less than 10,000 tons of ore, except that a greater amount may be permitted if the applicant demonstrates that the greater amount is necessary for a specific purpose in the testing program; and~~
- ~~2. The applicant has clearly shown that the facility will not degrade the waters of the State.~~

~~A permit to operate a pilot facility or testing facility may not exceed 1 year for a single test or 2 years for a facility that has several tests to conduct. — (Added to NAC by Environmental Comm’n, eff. 9-1-89) — (Substituted in revision for NAC 445.24322)~~

~~**NAC 445A.412 Pilot facility or testing facility: Contents of application for permit.** (NRS 445A.425, 445A.465) — An application for a permit to construct, operate and close permanently a pilot facility or testing facility must include:~~

- ~~1. The information required in paragraphs (a) to (d), inclusive, of subsection 2 of NAC 445A.394;~~
- ~~2. The quantity of the material to be evaluated;~~
- ~~3. The time required to complete all testing;~~
- ~~4. The type and quantity of chemicals to be utilized in the testing process;~~
- ~~5. A copy of the plans for the system and individual process components;~~
- ~~6. A description of the monitoring systems which are to be used to satisfy the requirements of NAC 445A.424;~~
- ~~7. A description of the procedures to be used to stabilize and dispose of the spent ore;~~
- ~~8. A topographic map of the area for the test site;~~
- ~~9. A description of hydrogeologic conditions at the site; and~~
- ~~10. A draft plan for the permanent closure of the facility, including a plan to stabilize areas disturbed by the operations of the facility.~~

~~**NAC 445A.413 Pilot facility or testing facility: Construction of application indicating need to conduct testing beyond 2 years. (NRS 445A.425, 445A.465)**—An application for a permit to operate a pilot facility or testing facility which indicates a need to conduct testing beyond 2 years will be construed to be a request to operate a facility subject to the filing requirements of NAC 445A.394 to 445A.398, inclusive.~~

Rationale for eliminating NAC 445A.411, 445A.412, and 445A.413-- In the 445A program, pilot or testing facilities do not have a designated fee category pursuant to NAC 445A.232 nor does BMRR issue any Water Pollution Control Permits that are specific to pilot or testing facilities. A Permittee requesting a pilot or testing facility permit is not entitled to any specific exemptions regulatory or otherwise and is restricted on the tonnage processed (less than 10,000 tons), the duration of the testing (1 year for a single test and 2 years for multiple tests), and cannot be renewed. To extend the testing duration, a new 5-year Permit would have to be applied for, reviewed, and approved.

The type of information required for inclusion in an application submittal to BMRR is the same as that for any other physical separation or facility utilizing chemicals for minerals/metals extraction. The 30-day administrative review period, 90-day technical review period, 30-day public comment period, 15-day notice of decision period, and 15-day appeal period are the same as those for any new permit. BMRR staff encourages those interested in obtaining a pilot or testing facility permit apply for the 5-year Permit for the above reasons. In the last five years there was only one pilot scale permit issues and it failed to ever operate.

NAC 445A.414 Permit for facility using physical separation methods. (NRS 445A.425, 445A.465)

1. An applicant for a permit to construct, operate and close permanently a facility which utilizes physical separation methods of concentrating ore such as placer mining ~~and flotation~~ methods ~~and~~ which uses only coagulants, ~~and~~ flocculants ~~and reagents~~ submitted to and approved by the Department, must submit to the Department:
 - (a) The information required by paragraphs (a) to (e), inclusive, of subsection 2 of NAC 445A.394;

- (b) An abbreviated area of review which covers only the site and the adjacent area, including an identification of all surface water within 1/2 mile of the site and the depth and quality of all groundwater beneath the site;
- (c) A draft operating plan which describes the circuit for concentrating the ores and identifies all process components;
- (d) A ~~multi-element spectrographic assay or other approved method of~~ meteoric water mobility procedure (ASTM E2242-13) - Profile I analysis which characterizes the ore body. This analysis is not required for facilities that will process only uncrushed alluvium, unless otherwise required in writing by the Department based on a specific concern regarding the potential to degrade waters of the State;
- (e) The results of an analysis of the process make up water and process water for the inorganic constituents listed in NAC 445A.453 and 445A.455 to determine which and to what extent the process water burden of these elements is increased; and
- (f) A certification that the applicant will not utilize any chemicals in the process except those submitted to and approved by the Department.

2. The use of a chemical not approved by the Department removes the facility from this category of operation and requires the holder of the permit to meet the requirements established in NAC 445A.394 to 445A.398, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24328)

Rational for change to NAC 445A.414 - The word flotation not defined in regulation, and is not compatible with physical separation processing. Flotation is a chemical process which creates a concentrate and tailings product which often exceeds drinking water standards which requires a high level of review as a chemical process. Physical separation processes do not use reagents other than approved flocculants. The addition of other reagents would require the facility to be permitted as a chemical facility.

NAC 445A.4155 Conditions pursuant to which modification to design of facility with existing permit does not require new public notice; extension of term of existing permit disallowed. (NRS 445A.425, 445A.465)

1. A modification to the design of a facility for which a permit has been granted by the Department does not require a new public notice if:

(a) The modification requires review by the Department pursuant to NAC 445A.350 to 445A.447, inclusive; and

(b) The Commission determines that the modification is not a modification of such significance as to constitute a “minor modification” or a “major modification,” as those terms are described in NAC 445A.416 and 445A.417, respectively.

2. Such a modification may not extend the term of the permit.

3. Such a modification is referred to as an engineering design change.

Rationale for change – The type of change referenced in this regulation has been called an engineering design change (EDC) for years by the Department and the regulated public. It is confusing to the public and new employees of the Department alike that the type of modification

referenced in this regulation, and in NAC 445A.418, is not formally identified with a name. This confusion can be easily prevented with the proposed change.

NAC 445A.418 Fee for modification of permit. (NRS 445A.425, 445A.430, 445A.465)

1. The fee for a minor modification to a permit is one-half the amount of the renewal fee for a permit, up to a maximum fee of \$5,000.
2. The fee for a major modification to a permit is equal to the amount of the renewal fee for a permit.
3. The fee for ~~the type of a modification described in NAC 445A.4155~~ an engineering design change modification is \$500.

Rationale for change – This change further clarifies and reinforces the formal name of engineering design change for the type of modification described in NAC 445A.4155. See also the rationale provided above for the change to NAC 445A.4155.

NAC 445A.424 Limitations on degradation of water; exemptions. (NRS 445A.425, 445A.465)

1. A facility, regardless of size or type, may not degrade the waters of the State to the extent that:
 - (a) The quality of surface water is lowered below that allowed by NRS 445A.565.
 - (b) For groundwater:
 - (1) The ~~quality is lowered below~~ concentration exceeds a state or federal regulation prescribing standards for drinking water or the natural background concentration of the regulated drinking water constituent, whichever value is greater; or
 - (2) The concentration of WAD cyanide exceeds 0.2 mg/l.The Department may establish a numerical limit for any constituent not regulated by subparagraphs (1) and (2) which may reasonably be expected to be discharged by the facility in sufficient volume and concentration to cause an adverse impact on human health.

(c) The quality of those waters of the State which already exceed the criteria established by subsection 2 is lowered to a level that the Department finds would render those waters unsuitable for the existing or potential municipal, industrial, domestic or agricultural use.

2. The Department may exempt a body of groundwater or portion thereof from the standards established in subsection 1 if the request for an exemption to the groundwater standards and the supporting information is submitted as part of the application for the permit. The following criteria will be considered by the Department in determining whether to exempt a potentially impacted body of groundwater from the standards in subsection 1:

(a) The impacted groundwater does not currently serve as a source of drinking water and because of the following reasons the groundwater will not serve as a source of drinking water:

(1) The groundwater produces a mineral, hydrocarbon or geothermal fluid which the applicant can demonstrate to the satisfaction of the Department exists at a concentration that is expected to be capable of commercial production and that releases by the facility will not affect this production;

(2) The groundwater is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical; or

(3) It would be economically or technologically impractical to render the water fit for human consumption; or

(b) The total dissolved solids in the groundwater is more than 10,000 milligrams per liter and the groundwater is not reasonably expected to become a supply of drinking water.

Rationale for change – This regulation change clarifies that a facility will not be held accountable for an exceedance of a drinking water standard if the exceedance is due to a naturally elevated background concentration. A similar allowance is made in the Corrective Action regulation NAC 445A.22735, which establishes the background concentration as the action level in groundwater if the background concentration exceeds the maximum contaminant level. The Department has a longstanding policy of taking into consideration background concentrations; this regulation change formalizes that fair policy.

NAC 445A.428 Level of containment required for placer mining ~~or flotation~~ facilities. For placer mining ~~or flotation~~ facilities, the level of containment required by the Department for process fluids will depend upon the characteristics of the ore and process water.

Rational for change to NAC 445A.428 - The word flotation not defined in regulation, and is not compatible with physical separation processing. Flotation is a chemical process which creates a tailings product which often exceeds drinking water standards which requires a high level of review as a chemical process. Physical separation processes do not use reagents other than approved flocculants. The addition of other reagents would require the facility to be permitted as a chemical facility.

NAC 445A.433 Minimum design criteria: Universal requirements; areas where groundwater is near surface; proximity of new process components to dwellings; liability for degradation of water. (NRS 445A.425, 445A.465)

1. The following minimum design requirements apply to all process components:

(a) In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge.

(b) All sources must be designed to minimize releases of contaminants into groundwaters or subsurface migration pathways so that any release from the facility will not degrade waters of the State.

(c) All process components must be designed **for their operating life** to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval.

(d) The primary fluid management system must be designed **for its operating life** to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. The Department may require additional containment based on the following factors:

(1) Proximity to surface water bodies;

(2) Depth to groundwater; and

(3) Proximity to population.

Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans.

(e) The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period.

(f) The design of the process components must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity.

2. Additional containment of process fluids may be required in areas where groundwater is considered to be near the surface. Groundwater is considered to be near the surface if:

(a) The depth from the surface to groundwater is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of 1×10^{-5} cm/sec material;

(b) Open fractured or faulted geologic conditions exist in the bedrock from the surface to the groundwater; or

(c) There is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed.

3. The following minimum design requirements apply to process components for which the Department has not approved a Final Plan for Permanent Closure by July 1, 2018:

(a) During permanent closure, all process components must be designed or modified to withstand the runoff from a 24-hour storm event with a 500-year recurrence interval; and

(b) During permanent closure, all process components must be designed or modified to be able to remain fully functional and fully contain all fluids including all accumulations resulting from a 24-hour storm event with a 500-year recurrence interval. The Department may require additional containment based on the factors listed in subparagraphs (1), (2), and (3) of paragraph (d) of subsection 1.

34. No new process component containing process fluids may be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility. This restriction does not apply to modifications at a facility which predate such a dwelling.

–5. The application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility.

Rational for change - The physical and chemical stability of components at several mine sites have been compromised by localized, intense, rain storms or rain on snow events with rapid melting, requiring prompt action to prevent or reduce environmental impacts. These situations are commonly caused either by single storms with precipitation exceeding the 100-year, 24 hour event or by multiple back-to-back large storm events which together result in greater precipitation than the 100-year, 24-hour event. If a closure site is not properly engineered for physical and chemical stability into the long-term, then it can be anticipated that storm events will physically degrade the site over time, potentially compromising the containment systems and leading to chemical degradation of waters of the State. This would not be considered a successful mine closure and could represent a serious environmental issue. This may also mean that we could not ‘retire’ the Permit nor release the associated Reclamation bond, which would represent a negative financial impact on the Permittee.

The State of Nevada Division of Environmental Protection (Division) Bureau of Mining Regulation and Reclamation (BMRR) has determined that during permanent closure each process component at a Nevada mine facility must be constructed or modified to withstand the run-off

from a 24-hour storm event with a 500-year recurrence interval, and the fluid management system must be able to contain all fluids including all accumulations resulting from a 24-hour storm event with a 500-year recurrence interval, unless the Division approves a demonstration that a different design storm event is more suitable for protection of waters of the State during permanent closure.

This storm-event requirement is based on several factors, including observed storm damage to previously closed components, the possible short lifespan of components designed for 100-year events, the apparent increase in frequency of major storm events, the reduced availability of personnel for emergency response at closure sites, and the relatively short 30-year period for post-closure monitoring allowed at Nevada Administrative Code (NAC) 445A.446. This is not a completely new requirement, however. Closure components at some Nevada mine sites have previously been designed per Division recommendation for a 500-year, 24-hour storm event. Also, the Division guidance document, *“Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports”* was revised in February 2016 to state, “BMRR recommends that all source/components in closure are designed to withstand run-off from a 24-hour storm event with a 500-year recurrence interval.”

Regulatory authority for the 500-year, 24-hour design storm requirement is already provided at NAC 445A.432 and 445A.433, but not explicitly. NAC 445A.433 establishes minimum design requirements that apply to all process components; however, NAC 445A.432 requires the Department to apply best engineering judgement to determine the degree to which designs must provide more or less protection through engineered containment than the minimum design criteria at NAC 445A.433 to 445A.438. Despite this existing authority to require a different design storm event, the Division feels that the proposed explicit establishment of the 500-year, 24-hour event as the minimum design standard is defensible and is more clear to the regulated community and the public.

NAC 445A.444 Examples of planned and unplanned temporary closures. (NRS 445A.425, 445A.465)

1. The following are examples of planned temporary closures which have specific conditions defining their beginning and end:

- (a) Seasonal closures because of normal weather cycles.
- (b) Interruptions in the active beneficiation processes to provide planned periods of quiescence for metallurgical or operating reasons.
- (c) Any other planned process condition which will interrupt the active beneficiation process.

2. The following are examples of unplanned temporary closures:

- (a) A closure because of unforeseen weather events.
- (b) A failure in a major system component or a process failure which causes the fluid management system or a portion thereof to shut down.
- (c) The discontinuation of a facility’s operations because of litigation.
- (d) An abandoned facility.

Rationale for change – The Department has experience with several abandoned chemical processing mine facilities that have been left with toxic solutions, chemicals, and/or other conditions that are potentially hazardous to human health, wildlife, and the environment or violate

other compliance requirements. Abandoned facilities should be considered examples of unplanned temporary closure and should be required to take appropriate permanent closure actions because of their potential for unmonitored environmental degradation. Considering abandoned facilities as being an example of unplanned temporary closure clarifies Department authority to require the actions stipulated at NAC 445A.445 for unplanned temporary closure. This also provides a pathway for the Department or its contractor to take action as appropriate to complete the permanent closure and reclamation of abandoned sites if the Permittee continues to be unresponsive. This regulation change will help to protect waters of the State, human health, wildlife, and the environment.

NAC 445A.445 Procedure upon unplanned temporary closure of process component. (NRS 445A.425, 445A.465)

1. In the event of an unplanned temporary closure of one or more process components, the holder of the permit shall:

(a) Within 30 days after an unplanned temporary closure begins, inform the Department of the closure and describe the procedures and controls which have been carried out to maintain the process components during this period.

(b) Within 90 days after the Department has been notified, *or otherwise becomes aware*, of the unplanned temporary closure, *whichever occurs first*:

(1) Begin to evaluate the procedures which will be required to carry out a permanent closure of the process components affected and petition the Department to approve one or more procedures needed for the permanent closure of the process components affected; or

(2) For just cause, request that the Department grant an extension and delay permanent closure. Except as otherwise provided in subsection 2 of NAC 445A.420, the extension may not be longer than the remaining term of the existing permit or for 3 years, whichever is greater.

2. The Department shall approve or disapprove the proposed procedures for permanent closure within 30 days after they are submitted to the Department.

3. Unless the Department has granted an extension pursuant to subparagraph (2) of paragraph (b) of subsection 1 within 270 days after the Department has been notified, *or otherwise becomes aware*, of the unplanned temporary closure, *whichever occurs first*, the holder of the permit shall initiate the approved procedures for permanent closure.

Rationale for change – This regulation change is appropriate for abandoned facilities, because with abandoned facilities, the Permittee typically does not notify the Department of the unplanned temporary closure. Without this regulation change, therefore, the actions stipulated in subsections 1(b) and 3 would never be required for abandoned facilities, because the timeframes depend on the initial notification that typically does not occur. The proposed changes would ultimately result in required permanent closure of abandoned facilities. This provides a pathway for the Department or its contractor to take action as appropriate to complete the permanent closure and reclamation of abandoned sites if the Permittee continues to be unresponsive. This regulation change will help to protect waters of the State, human health, wildlife, and the environment.

NAC 445A.446 Permanent closure of facility.

1. The permanent closure of a facility *or source, as applicable*, must be initiated:

- (a) Following the request of the holder of the permit;
- (b) For a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or
- (c) When the end of the design life of that process component is reached.

2. Permanent closure is complete when the requirements contained in NAC 445A.429, 445A.430, and 445A.431 have been achieved, **as applicable, and all other sources at the facility have been stabilized, removed, or mitigated.**

3. The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years, **unless the Department determines that chemical stabilization, source removal, or mitigation was not achieved and additional permanent closure actions are required.**

Rational for change to NAC 445A.446 - "Source" is added to the regulation title and to subsection 1 to clarify that permanent closure requirements apply equally regardless if an individual source or an entire facility with multiple sources is being closed, because both scenarios are common.

Subsection 2 is being modified to correct an inconsistency between this subsection and NAC 445A.367 and 445A.447. The latter regulations indicate that all sources at a facility are subject to the requirements for permanent closure, yet subsection 2 currently states that permanent closure is complete when only the impoundments (NAC 445A.429), the spent ore (NAC 445A.430), and the tailings (NAC 445A.431), if any, are stabilized. Many facilities lack one or more of these major components but include other sources (e.g., waste rock storage facilities, process ponds, mill components, fuel facilities, etc.) that have the potential to degrade waters of the State if they are not properly stabilized. For consistency with NAC 445A.367 and 445A.447, and with the primary intent of this program, permanent closure must not be considered complete until all sources at the facility have been stabilized, removed, or mitigated.

Subsection 3 is being modified because unforeseen environmental issues have required additional permanent closure actions to be taken on sources at various mining facilities (e.g., leach pads, evaporation cells, pit lakes, etc.) after previous permanent closure actions had been completed and post-closure monitoring was underway. In those situations it is imperative for the protection of waters of the State that the maximum timeframe for post-closure monitoring be suspended to allow ample time for evaluation of the unstabilized sources, completion of additional permanent closure actions, and a new period of post-closure monitoring.

Note this proposed change below may require a change to NRS 519.110 the definition of a small miner.

NAC 519A.085 "Small mining operation" defined. (NRS 519A.160) "Small mining operation" means a person who:

1. **Does not use chemicals for mineral extraction other than approved flocculants and coagulants;**
2. **Does not remove from the earth in any calendar year material including ore and waste combined in excess of 36,500 tons; and**
3. **Who disturbs less than 5 acres of land in any calendar year.**

To determine the area of the surface disturbed, all land disturbed and left unreclaimed by an operator within a 1-mile radius of the center of the project must be considered.

4. Does not include underground facilities.

Rational for change to NAC 519A.085 Since 2011 there has been three facilities that utilized chemicals and fell within the existing small miner exemption on private land. As such there was no bonding available for site reclamation and in all three cases when the mine operator abandoned the facility the land owner was responsible for the chemical removal site reclamation and closure. BMRR has also had difficulty enforcing potential public hazards for underground opening on facilities that operate under the current 5-acre exemption. This would allow for the bonding of closure activities for underground workings on private lands where the overall site disturbance is under five acres. On Federal Lands a notice level bond is required for facilities under five acres. This regulation would only affect small operator's utilizing chemicals and or operates underground facilities on private lands.

NAC 519A.185 Provision of notice of intent to issue draft of permit or to deny application.
(NRS 519A.160)

1. Except as otherwise provided in subsection 3, the Division shall, at least 30 days before the issuance of a draft permit or a notice of intent to deny the application for a permit for an exploration project or mining operation to be conducted on privately owned land:

(a) Circulate a public notice of the intent to issue a draft permit or deny the application in a manner intended to inform interested persons;

(b) Cause to be published ~~on an internet website designed to give general public notice in a newspaper of general circulation within the geographic area of a proposed exploration project or mining operation,~~ a notice of the intent to issue the permit or deny the application; and

(c) Mail to the operator, landowner of record who is identified by the applicant in the application, members of the board of county commissioners of the county in which the project or operation is to be located, Division of Minerals of the Commission on Mineral Resources and any other person or group who so requests, written notice of the intent to issue a draft permit or deny the application.

2. Notice given pursuant to subsection 1 must include:

(a) The name, address and telephone number of the Division;

(b) The name and address of the operator;

(c) The location of the proposed project or operation;

(d) The tentative decision of the Division to issue a draft permit or deny the application for a permit;

(e) A description of the procedure which the Division will use to make a final decision to issue or deny the permit;

(f) The location where interested persons may obtain further information or inspect and copy the draft of the permit and other relevant forms and documents; and

(g) A statement that interested persons must submit to the Division written comments and information on the tentative decision of the Division within 30 days after the date on which the notice is published.

3. An application for a permit which has been submitted pursuant to [NAC 519A.150](#) or [519A.155](#) is not subject to the notice requirements of [NAC 519A.185](#) to [519A.210](#), inclusive.

Rational for change – This revision will significantly improve communication with the public on permit actions by allowing for information to be made available for an extended period on a dedicated website in comparison to a one-day newspaper notice, which will result in broader and better informed public participation. Public access will be improved by making actions immediately available through convenient and reliable electronic media outlets. E-notice will also provide flexibility for the Division by avoiding time delays associated with newspaper publication and allowing for faster correction of errors and rescheduling of events. Additionally resources currently being spent by the Division will be more efficiently used by removing the public notice newspaper requirements. The Division has only received comments from Newspaper posting on very rare occasions. The Division maintains an electronic mailing list with approximately 200 interested individuals including private and government entities. It is possible for interested parties to sign up on the Division website to be included on the mailing lists. All public notices are forwarded to the electronic list which generates the bulk of our comments. By bypassing the newspaper requirement and posting on the internet both time and money will be saved by the Division and there will be a slight reduction in the associated Permitting timeline. Many local papers in rural parts of Nevada only print during limited time periods on a weekly or bimonthly basis. Coordinating the permit action with a newspaper timing can delay permitting activities for up to one to two weeks.