1 PURPOSE AND OBJECTIVES

This *"Tailings Storage Facility (TSF) Technical & Operations Standard"* (the "Standard") sets the minimum Newmont requirements for the design, operations and closure of TSFs with respect to operations and technical aspects to prevent unacceptable performance or catastrophic failure. A TSF includes the collective structures, components and equipment pertaining to management of tailings and associated waters, including dams and reservoirs, other related facilities and appurtenances.

Use of this Standard shall be in conjunction with other applicable standards and guidance within the Social, S&ER, Geology, Process, and Mine Engineering Functions, including but not limited to the *"Tailings Storage Facility (TSF) & Heap Leach Facility (HLF) Environmental Management Standard"* (NEM-SER-STA-002), which sets the minimum Newmont requirements to protect human health, wildlife and flora; protect groundwater and/or surface water; prevent uncontrolled releases to the environment; and promote stakeholder engagement. Together, these Standards comprise Newmont's overarching requirements for tailings management, which incorporates the elements of the International Council on Mining & Metals (ICMM) position statement on *Preventing Catastrophic Failure of Tailings Storage Facilities* and aligns with the Global Industry Standard on Tailings Management (GISTM).

2 SCOPE

The scope of this Standard is global. It applies to all directors, officers, employees and any third party workers of Newmont Corporation ("NC") or any entity that is controlled or managed by NC (together with NC, "Newmont"). In addition, where explicitly stated in an applicable contract, it may apply to Newmont's third party workers, vendors and other types of business partners. It is applicable to all sites and in all phases of the mine lifecycle including exploration, design, construction, operation and closure.

3 CONTENT

3.1 PLANNING & DESIGN

3.1.1 Develop and maintain a KNOWLEDGE BASE to support safe tailings management throughout the TSF LIFECYCLE, including closure.

a) Area baseline conditions shall be evaluated prior to siting and design of the TSF through qualified technical studies that address site characterization.

b) Prepare, document and update a detailed site characterization of the TSF site(s) that includes data on climate, geomorphology, geology, geochemistry, hydrology and hydrogeology (surface and groundwater flow and quality), geotechnical and seismicity.

c) The physical and chemical properties of the tailings shall be characterized and updated regularly to account for variability in ore properties and processing.

3.1.2 Develop and document a BREACH ANALYSIS for the TSF using a methodology that considers CREDIBLE FAILURE MODES, site conditions, operational water storage conditions, and the properties of the tailings. The results of the study shall estimate the physical area impacted by a potential failure. When flowable materials (water and liquefiable solids) are present, the results should include estimates of the physical area impacted by a potential failure, flow arrival times, velocities, and depth of material deposition. The analysis shall be updated whenever there is a MATERIAL CHANGE either to the TSF or the physical area impacted.

3.1.3 For new TSFs, use the KNOWLEDGE BASE to undertake a multi-criteria ALTERNATIVES ANALYSIS of all feasible sites, technologies and strategies for tailings management. For existing TSFs, periodically review and refine the tailings technologies, design and management strategies to minimize risk and improve environmental outcomes.

a) For new TSFs, the goal of the multi-criteria alternatives analysis is to: (i) select an alternative that minimizes risks to people and the environment throughout the TSF LIFECYCLE; and (ii) minimizes the volume of tailings and water placed in TSFs.

b) The multi-criteria ALTERNATIVES ANALYSIS for new TSFs and options studies for existing TSFs shall be reviewed by the INDEPENDENT TAILINGS REVIEW BOARD (ITRB) or SENIOR INDEPENDENT TECHNICAL REVIEWER.

c) An exception to this requirement applies to existing TSFs that are demonstrated to be in a state of SAFE CLOSURE.

3.1.4 Determine the CONSEQUENCE CLASSIFICATION of the TSF by assessing the downstream conditions documented in the KNOWLEDGE BASE and selecting the classification corresponding to the highest CONSEQUENCE CLASSIFICATION for each category outlined in **Annex 1**. The assessment and selection of the CONSEQUENCE CLASSIFICATION shall be based on CREDIBLE FAILURE MODES, and shall be defensible and documented.

a) The CONSEQUENCE CLASSIFICATION shall be reviewed at the time of each DAM SAFETY REVIEW (DSR) and at least every five years, or sooner if there is a MATERIAL CHANGE in the social and/or environmental context.

b) If a CHANGE to a higher CONSEQUENCE CLASSIFICATION occurs, design upgrades of the TSF to accommodate the new CONSEQUENCE CLASSIFICATION as determined by the DSR shall be completed within three years.

c) Periodic review of the CONSEQUENCE CLASSIFICATION shall proceed in accordance with this process until the TSF has been safely closed.

3.1.5 Develop plans and design criteria for the TSF to minimize risk for all phases of its lifecycle, including closure and post-closure. New TSFs shall be designed with external loading design criteria considering 'Extreme' CONSEQUENCE CLASSIFICATION as outlined in **Annex 1**, regardless of the assigned classification.

3.1.6 With the objective of maintaining flexibility in the operations and continued development of an existing TSF and optimizing costs while prioritizing safety throughout the TSF LIFECYCLE:

a) Develop PRELIMINARY DESIGNS for the TSF with external loading design criteria consistent with both the CONSEQUENCE CLASSIFICATION selected based on current conditions and considering 'Extreme' CONSEQUENCE CLASSIFICATION, as outlined in **Annex 1**.

b) Informed by the range of requirements defined by the PRELIMINARY DESIGNS, either: (i) implement the design for the 'Extreme' CONSEQUENCE CLASSIFICATION external loading criteria; or (ii) implement the design for the current CONSEQUENCE CLASSIFICATION criteria, or a higher one, and demonstrate that the feasibility at a proof of concept level to upgrade to the design for the 'Extreme' CONSEQUENCE CLASSIFICATION criteria is maintained throughout the TSF LIFECYCLE.

c) The process described above shall be reviewed by the ITRB or the SENIOR INDEPENDENT TECHNICAL REVIEWER, as appropriate for the TSF CONSEQUENCE CLASSIFICATION.

d) The ACCOUNTABLE EXECUTIVE shall take the decision to adopt a design for the current CONSEQUENCE CLASSIFICATION criteria and to maintain flexibility to upgrade the design for the highest CONSEQUENCE CLASSIFICATION criteria later in the TSF LIFECYCLE. This decision shall be documented.

3.1.7 Existing TSFs shall conform with the Requirements under 3.1.6 except for those aspects where the ENGINEER OF RECORD (EOR), with review by the ITRB or a SENIOR INDEPENDENT TECHNICAL REVIEWER, determines that the upgrade of an existing TSF is not viable or cannot be retroactively applied. In this case, the ACCOUNTABLE EXECUTIVE shall approve and document the implementation of measures to reduce both the probability and the consequences of a TSF failure in order to reduce the risk to a level AS LOW AS REASONABLY PRACTICABLE (ALARP). The basis and timing for addressing the upgrade of existing TSFs shall be risk-informed and carried out as soon as reasonably practicable.

3.1.8 Where applicable regulatory, legal or other obligations are more stringent than those defined by the design process described above, the more stringent requirements shall apply.

3.1.9 Develop design criteria and plans for the TSF to minimize risk for all phases of its lifecycle, including closure and post-closure. Select, explicitly identify and document all design criteria that are appropriate to minimize risk for all CREDIBLE FAILURE MODES and for all phases of the TSF LIFECYCLE:

a) Apply design criteria, such as factors of safety for slope stability and seepage management, that consider estimated operational properties of materials and expected performance of design elements, and quality of the implementation of risk management

systems. These issues should also be appropriately accounted for in designs based on deformation analyses.

b) Identify and address brittle failure modes with conservative design criteria, independent of trigger mechanisms, to minimize their impact on the performance of the TSF.

3.1.10 Prepare a DESIGN BASIS REPORT (DBR) that details the design assumptions and criteria, including operating constraints, and that provides the basis for the design of all phases of the TSF LIFECYCLE. The DBR shall be prepared by the EOR and reviewed by the ITRB or SENIOR INDEPENDENT TECHNICAL REVIEWER. The EOR shall update the DBR every time there is a MATERIAL CHANGE in the design assumptions, design criteria, design, or the KNOWLEDGE BASE and confirm internal consistency among these elements.

3.1.11 Develop a ROBUST DESIGN that integrates the KNOWLEDGE BASE and minimizes the risk of failure to people and the environment for all phases of the TSF LIFECYCLE, including closure and post-closure. For new TSFs, incorporate the outcome of the multi-criteria alternatives analysis including the use of TAILINGS technologies in the design of the TSF. For expansions to existing TSFs, investigate the potential to refine the TAILINGS technologies and design approaches with the goal of minimizing risks to people and the environment throughout the TSF LIFECYCLE.

a) Develop a ROBUST DESIGN that considers the technical, social, environmental and local economic context, the TSF CONSEQUENCE CLASSIFICATION, site conditions, water management, mine plant operations, TAILINGS operational and construction issues, and that demonstrates the feasibility of SAFE CLOSURE of the TSF. The design should be reviewed and updated as performance and site data become available and in response to MATERIAL CHANGES to the TSF or its performance.

b) Develop a design for each stage of construction of the TSF, including but not limited to start-up, partial raises and interim configurations, final raise, and all closure stages.

3.1.12 Address all potential failure modes of the structure, its foundation, abutments, reservoir (TAILINGS deposit and pond), reservoir rim and appurtenant structures to minimize risk to ALARP. RISK ASSESSMENTS must be used to inform the design, operations and monitoring of the TSF.

3.1.13 Develop, implement and maintain a water balance model and associated water management plans for the TSF, taking into account the KNOWLEDGE BASE, including climate CHANGE, upstream and downstream hydrological and hydrogeological basins, the mine site, mine planning and overall operations and the integrity of the TSF throughout its lifecycle. The water management program must be designed to protect against unintentional releases.

3.1.14 Liner systems, seepage collection and pump-back systems, and/or other seepage mitigation measures shall be designed, constructed, maintained and/or operated to

meet the environmental requirements outlined in the TAILINGS STORAGE FACILITY (TSF) & Heap Leach Facility (HLF) Environmental Management Standard (NEM-SER-STA-002).

3.1.15 Design the closure phase in a manner that meets all the requirements of this Standard with sufficient detail to demonstrate the feasibility of the closure scenario and to allow implementation of elements of the design during construction and operation as appropriate. The design should include progressive closure and RECLAMATION during operations to the extent feasible. The closure goal should be to achieve a state of SAFE CLOSURE as soon as feasible after operations cease.

3.1.16 Per the Investment System, the project team must demonstrate compliance with the "Study/Project Requirements by Stage." This includes identifying all costs associated with the design, construction, operations and closure of the TSF to ensure that, at all stages of development and operation for the lifecycle of the facility, sufficient resources are available to maintain the necessary operational controls, monitoring, and facility review.

a) Designs shall be reviewed CROSS-FUNCTIONALLY, including Technical Services, Sustainability & External Relations (S&ER), Projects, Process, and others, as applicable.

b) A functional review by a CORPORATE SUBJECT MATTER EXPERT (SME) from the Corporate Tailings Management Team shall be a requirement of the Investment System, with reviews documented and comments addressed to the satisfaction of the reviewer.

3.2 IMPLEMENTATION & MANAGEMENT

3.2.1 Establish a TAILINGS GOVERNANCE FRAMEWORK and a performance-based TAILINGS MANAGEMENT SYSTEM (TMS) and ensure that the ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) and other critical components encompass relevant aspects of the TSF management.

3.2.2 Newmont shall appoint one or more ACCOUNTABLE EXECUTIVES who is/are directly answerable to the CEO on matters related to this Standard and other related Newmont standards pertaining to TAILINGS management, safety performance, social and environmental performance.

3.2.3 Appoint a site-specific RTFE/RTFP who is accountable for the integrity of the TSF, who liaises with the EOR and internal teams such as operations, planning, regulatory affairs, social performance and environment, and who has regular two-way communication with the ACCOUNTABLE EXECUTIVE (or Delegate). The RTFE/RTFP must be familiar with the DBR, the DESIGN REPORT and the construction and performance of the TSF.

3.2.4 Identify appropriate qualifications and experience requirements for all personnel who play safety-critical roles in the operation of a TSF, including but not limited to the RTFE/RTFP, the EOR, and the ACCOUNTABLE EXECUTIVE. Ensure that incumbents of these roles have the identified qualifications and experience, and develop succession plans for these personnel.

3.2.5 Engage an engineering firm with expertise and experience in design and construction of TSFs of comparable complexity to serve as the EOR and provide EOR services for operating TSFs and for closed facilities with 'High', 'Very High' and 'Extreme' CONSEQUENCE CLASSIFICATION that are in the active closure phase.

a) Empower the EOR through a TERMS OF REFERENCE (TOR) that clearly describes their authority, role and responsibilities throughout the TSF LIFECYCLE. The TOR must clearly describe the obligations of the Operator to the EOR, to support the effective performance of the EOR.

b) Require that the engineering firm nominate a senior engineer, approved by the ACCOUNTABLE EXECUTIVE (or Delegate), to represent the firm as the EOR, and verify that the individual has the necessary experience, skills and time to fulfil this role. Identification of a DEPUTY EOR is desirable to support succession planning.

c) Given its potential impact on the risks associated with a TSF, the selection of the EOR shall be decided by the ACCOUNTABLE EXECUTIVE (or Delegate) and informed, but not decided by, procurement personnel.

d) Where it becomes necessary to CHANGE the EOR, develop a detailed plan for the comprehensive transfer of data, information, knowledge and experience with the construction procedures and materials.

3.2.6 Establish and implement a program to manage the quality of all engineering work, the interactions between the EOR, the RTFE/RTFP and the ACCOUNTABLE EXECUTIVE, and their involvement in the TSF LIFECYCLE, as necessary, to confirm that both the implementation of the design and the design intent are met.

3.2.7 Plan, build and operate the TSF to manage risk at all phases of the TSF LIFECYCLE, including closure and post-closure. Build, operate, monitor and close the TSF according to the design intent at all phases of the TSF LIFECYCLE, using qualified personnel and appropriate methodology, equipment and procedures, data acquisition methods, the TMS and the overall EMS for the mine and associated infrastructure.

3.2.8 Manage the quality and adequacy of the construction and operation process by implementing Quality Control (QC), Quality Assurance (QA) and CONSTRUCTION VERSUS DESIGN INTENT VERIFICATION (CDIV). The CDIV shall be used to ensure that the design intent is implemented and is still being met if the site conditions vary from the design assumptions.

3.2.9 Prepare a detailed CONSTRUCTION RECORDS REPORT ('as-built' report) whenever there is a MATERIAL CHANGE to the TSF, its infrastructure or its monitoring system. The EOR and the RESPONSIBLE TAILINGS FACILITY ENGINEER (RTFE) / RESPONSIBLE TAILINGS FACILITY PERSON (RTFP) shall sign this report.

3.2.10 Develop, implement, review annually and update, as required, an OPERATIONS, MAINTENANCE AND SURVEILLANCE (OMS) MANUAL that supports effective risk

management as part of the TMS. The OMS MANUAL should follow BEST PRACTICES, clearly provide the context and CRITICAL CONTROLS for safe operations, and be reviewed for effectiveness. The RTFE/RTFP shall provide access to the OMS MANUAL and training to all levels of personnel involved in the TMS with support from the EOR.

3.2.11 Implement a formal CHANGE MANAGEMENT SYSTEM that triggers the evaluation, review, approval and documentation of CHANGES to design, construction, operation or monitoring during the TSF LIFECYCLE.

a) Any proposed CHANGE that could impact TAILINGS operations (e.g., increased throughput rate, CHANGE in TAILINGS characteristics or processing method, CHANGE in water management strategy), oversight responsibilities (e.g., proposed CHANGE of RTFE/RTFP or EOR), or the structural integrity of the TSF shall be reviewed and approved by Corporate Technical Services and the EOR, where appropriate, prior to adoption, and documented in writing.

b) The CHANGE MANAGEMENT SYSTEM shall also include the requirement for the EOR to prepare a periodic DEVIANCE ACCOUNTABILITY REPORT (DAR) that provides an assessment of the cumulative impact of the CHANGES on the risk level of the as-constructed facility. The DAR shall provide recommendations for managing risk, if necessary, and any resulting updates to the design, DBR, OMS MANUAL and the monitoring program. The DAR shall be approved by the ACCOUNTABLE EXECUTIVE.

3.2.12 Conduct and update RISK ASSESSMENTS with a qualified multi-disciplinary team including members of Technical Services, S&ER, Process and others, as required, using best practice methodologies at a minimum every three years and more frequently whenever there is either a MATERIAL CHANGE either to the TSF or to the social, environmental and local economic context. Transmit RISK ASSESSMENTS to the ITRB or SENIOR INDEPENDENT TECHNICAL REVIEWER for review, and address with urgency all unacceptable TSF risks.

a) For a proposed new TSF classified as ‘High’, ‘Very High’ or ‘Extreme’, the ACCOUNTABLE EXECUTIVE shall confirm that the design satisfies ALARP and shall approve additional REASONABLE STEPS that may be taken downstream to further reduce potential consequences to people and the environment. The ACCOUNTABLE EXECUTIVE shall explain and document the decisions with respect to ALARP and additional consequence reduction measures.

b) For an existing TSF classified as ‘High’, ‘Very High’ or ‘Extreme’, the ACCOUNTABLE EXECUTIVE, at the time of every DSR or at least every five years, shall confirm that the design satisfies ALARP and shall seek to identify and implement additional REASONABLE STEPS that may be taken to further reduce potential consequences to people and the environment. The ACCOUNTABLE EXECUTIVE shall explain and document the decisions with respect to ALARP and additional consequence reduction measures, in consultation with external stakeholders as appropriate.

3.2.13 Implement a site-specific EMERGENCY RESPONSE PLAN (ERP). Linkage between the OMS MANUAL and the ERP is required to provide clarity of when an operational upset condition or trigger exceedance becomes an emergency requiring initiation of the ERP.

3.2.14 Educate personnel who have a role in any phase of the TSF LIFECYCLE about how their job procedures and responsibilities relate to the prevention of a failure.

3.2.15 Include new and emerging technologies and approaches and use the evolving knowledge in the refinement of the design, construction and operation of the TSF.

3.3 PERFORMANCE MANAGEMENT

3.3.1 Design, implement and operate a comprehensive and integrated performance monitoring program for the TSF and its appurtenant structures as part of the TMS. The engineering monitoring system shall be appropriate for verifying design assumptions and for monitoring potential failure modes. Full implementation of the OBSERVATIONAL METHOD shall be adopted for non-brittle failure modes. Brittle failure modes are addressed by conservative design criteria.

3.3.2 Establish specific and measurable performance objectives, indicators, criteria, and performance parameters and include them in the design of the monitoring programs that measure performance throughout the TSF LIFECYCLE. Record and evaluate the data at appropriate frequencies. Based on the data obtained, update the monitoring programs throughout the TSF LIFECYCLE to confirm that it remains effective to manage risk.

3.3.3 Analyze technical monitoring data at the frequency recommended by the EOR, and assess the performance of the TSF, clearly identifying and presenting evidence on any deviations from the expected performance and any deterioration of the performance over time. Promptly submit evidence to the EOR for review and update the RISK ASSESSMENT and design, if required. Performance outside the expected ranges shall be addressed promptly through TRIGGER ACTION RESPONSE PLANs (TARPs) or CRITICAL CONTROLS.

3.3.4 Report the results of the monitoring program at the frequency required to meet Newmont and regulatory requirements and, at a minimum, on an annual basis. The RTFE/RTFP and the EOR shall review and approve the technical monitoring reports.

3.3.5 The EOR or SENIOR INDEPENDENT TECHNICAL REVIEWER shall conduct TSF construction and PERFORMANCE REVIEWS annually or more frequently, if required. The review may be considered a DAM SAFETY INSPECTION (DSI) or PERFORMANCE REVIEW.

3.3.6 For TSFs with CONSEQUENCE CLASSIFICATION of 'Very High' or 'Extreme', or facilities that pose technical, social and/or political risks as determined by Newmont's ACCOUNTABLE EXECUTIVE (or Delegate), appoint an ITRB. For all other facilities, appoint a SENIOR INDEPENDENT TECHNICAL REVIEWER.

a) The ITRB or the SENIOR INDEPENDENT TECHNICAL REVIEWER shall be appointed early in the project development process by the ACCOUNTABLE EXECUTIVE (or Delegate) and shall fulfil their obligations in accordance with the TERMS OF REFERENCE (TOR) and follow BEST PRACTICES in avoiding conflicts of interest.

b) The ITRB or the SENIOR INDEPENDENT TECHNICAL REVIEWER, reporting to the ACCOUNTABLE EXECUTIVE, shall provide ongoing senior independent review of the planning, siting, design, construction, operation, water and mass balance, maintenance, monitoring, performance and risk management at appropriate intervals across all phases of the TSF LIFECYCLE.

3.3.7 Conduct an independent DSR at least every five years for TSFs with 'Very High' or 'Extreme' CONSEQUENCE CLASSIFICATIONs and at least every 10 years for all other facilities. For TSFs with complex conditions or performance, the ITRB may recommend more frequent DSRs. The DSR shall include technical, operational and governance aspects of the TSF and shall be completed according to BEST PRACTICES. The DSR contractor cannot conduct consecutive DSRs on the same TSF and shall certify in writing that they follow BEST PRACTICES for engineers in avoiding conflicts of interest.

4 TERMS

TERM	DEFINITION
ACCOUNTABLE EXECUTIVE	One or more executive(s) who is/are directly answerable to the CEO on matters related to this Standard, communicates with the Board of Directors, and who is accountable for the safety of TSFs and for minimizing the social and environmental consequences of a potential TSF failure. The ACCOUNTABLE EXECUTIVE(s) may delegate responsibilities but not accountability. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
ALTERNATIVES ANALYSIS	An analysis that should objectively and rigorously consider all available options and sites for mine waste disposal. It should assess all aspects of each mine waste disposal alternative throughout the project lifecycle (i.e. from construction through operation, closure and ultimately long-term monitoring and maintenance). The ALTERNATIVES ANALYSIS should also include all aspects of the project that may contribute to the impacts associated with each potential alternative. The assessment should address environmental, technical and socio-economic aspects for each alternative throughout the project lifecycle.
PERFORMANCE REVIEWS	Conducted by the EOR or a SENIOR INDEPENDENT TECHNICAL REVIEWER. Regular PERFORMANCE REVIEWS are mandated in many jurisdictions, often annually or twice per year. Within Newmont, these

TERM	DEFINITION
	reviews shall be conducted on a minimum annual basis and shall include visual inspection, review of construction and operation practices, and review and assessment of the instrumentation monitoring data. Refer also to DSI.
AS LOW AS REASONABLY PRACTICABLE (ALARP)	ALARP requires that all reasonable measures be taken with respect to 'tolerable' or acceptable risks to reduce them even further until the cost and other impacts of additional risk reduction are grossly disproportionate to the benefit.
BEST PRACTICES	A procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption.
BREACH ANALYSIS	A study that assumes a failure of the TSF and estimates its impact. Breach Analyses must be based on CREDIBLE FAILURE MODES. The results should determine the physical area impacted by a potential failure, flow arrival times, depth and velocities, duration of flooding, and depth of material deposition. The BREACH ANALYSIS is based on scenarios which are not connected to probability of occurrence. It is primarily used to inform emergency preparedness and response planning and the CONSEQUENCE CLASSIFICATION. The CONSEQUENCE CLASSIFICATION is then used to inform the external loading component of the design criteria. Refer to Newmont's "*Breach Analysis, Inundation Mapping and Emergency Response Plan Guidance*" (NEM-SER-GDL-013).
CATASTROPHIC FAILURE	A TSF failure that results in MATERIAL disruption to social, environmental and local economic systems. Such failures are a function of the interaction between hazard exposure, vulnerability, and the capacity of people and systems to respond. Catastrophic events typically involve numerous adverse impacts, at different scales and over different timeframes, including loss of life, damage to physical infrastructure or natural assets, and disruption to lives, livelihoods, and social order. Operators may be affected by damage to assets, disruption to operations, financial loss, or negative impact to reputation.
CHANGE	Any addition, replacement, or modification to a program, facility, equipment, material, process, or organizational structure which could

TERM	DEFINITION
	have significant effect on people, the environment, business or community.
CHANGE MANAGEMENT SYSTEM	CHANGES in projects are inevitable during design construction and operation and must be managed to reduce negative impacts to quality and integrity of the TSF. The impact and consequences of CHANGES vary according to the type and nature of CHANGES, but most importantly according to how they are managed. Managing CHANGES effectively is crucial to the success of a project. A CHANGE MANAGEMENT SYSTEM has the objective of disciplining and coordinating the process, and should include an evaluation of the CHANGE, a review and formal approval of the CHANGE followed by detailed documentation including drawings and, where required, CHANGES to equipment, process, actions, flow, information, cost, schedule or personnel.
CONSEQUENCE CLASSIFICATION	Dam safety requirements typically classify structures based on evaluation of the potential downstream consequences of failure in terms of three categories, namely: loss of life; environment and cultural values; and infrastructure and economics. CONSEQUENCE CLASSIFICATION is not based on likelihood of failure, and includes five classifications (refer to **Annex 1**): Low, Significant, High, Very High and Extreme.
CONSTRUCTION RECORDS REPORT	Describes all aspects of the 'as-built' product, including all geometrical information, materials, laboratory and field test results, construction activities, schedule, equipment and procedures, Quality Control (QC) and Quality Assurance (QA) data, CDIV results, CHANGES to design or any aspect of construction, nonconformances and their resolution, construction photographs, construction shift reports, and any other relevant information. Instruments and their installation details, calibration records and readings must be included in the CONSTRUCTION RECORDS REPORT. Roles, responsibilities and personnel, including independent review should be documented. Detailed construction record drawings are fundamental.
CONSTRUCTION VERSUS DESIGN INTENT	Intended to ensure the design intent is implemented and still being met if the site conditions vary from the design assumptions. The CDIV identifies any discrepancies between the field conditions and the design

TERM	DEFINITION
VERIFICATION (CDIV)	assumptions, such that the design can be adjusted to account for the actual field conditions.
CORPORATE GOVERNANCE	Refers to the organizational structures and processes that a company puts in place to ensure effective management, oversight and accountability. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
CORPORATE SUBJECT MATTER EXPERT (SME)	The Competent Person(s) employed by Newmont to provide technical support and oversee governance with respect to TSF management across Newmont's global operations. The ACCOUNTABLE EXECUTIVE may delegate certain responsibilities to the CORPORATE SME. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
CREDIBLE FAILURE MODES / SCENARIOS	Refers to technically feasible failure mechanisms given the materials present in the structure and its foundation, the properties of these materials, the configuration of the structure, drainage conditions and surface water control at the facility, throughout its lifecycle. CREDIBLE FAILURE MODES can and do typically vary during the lifecycle of the facility as the conditions above vary. A facility that is appropriately designed and operated considers all of these CREDIBLE FAILURE MODES and includes sufficient resilience against each. The term 'CREDIBLE FAILURE MODE' is not associated with a probability of this event occurring and having CREDIBLE FAILURE MODES is not a reflection of facility safety. Different failure modes will result in different failure scenarios. Refer to Newmont's "*Tailings Storage Facility (TSF) Risk Assessment Guideline*" (NEM-TES-GDL-602).
CRITICAL CONTROL	A control that is critical to preventing a potential undesirable event or mitigating the consequences of such an event. The absence or failure of a CRITICAL CONTROL would disproportionately increase the risk despite the existence of other controls. Refer to Newmont's "*Tailings Storage Facility (TSF) Critical Control Report (CCR) Guideline*" (NEM-TES-GDL-603).
CROSS-FUNCTIONAL(LY)	A system or a practice whereby people from different areas of an organization share information and work together effectively as a team.
DAM SAFETY INSPECTION (DSI)	A comprehensive inspection of a dam (in this case a TSF) performed annually or otherwise scheduled (based on CONSEQUENCE

TERM	DEFINITION
	CLASSIFICATION or jurisdictional requirements), with elements such as those outlined by CDA (2013). DSIs are formal reviews of the condition of the TSF performed by the EOR with assistance from operations.
DAM SAFETY REVIEW (DSR)	A periodic and systematic process carried out by an independent qualified review engineer to assess and evaluate the safety of a dam or system of dams (or in this case a TSF) against failure modes, in order to make a statement on the safety of the dam. A safe TSF is one that performs its intended function under both normal and unusual conditions; does not impose an unacceptable risk to people, property or environment; and meets applicable safety criteria. The DSR covers technical, operational and governance aspects of the TSF.
DEPUTY EOR	An individual who is a member of the EOR Team and who provides back-up to the designated EOR. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600)
DESIGN BASIS REPORT (DBR)	Document that provides the basis for the design, operation, construction, monitoring and risk management of a TSF. The DBR details the design assumptions and criteria, including operational constraints, to provide a basis for all phases of the TSF LIFECYCLE.
DESIGN REPORT	Includes among other items: documentation of the relevant aspects of the KNOWLEDGE BASE, the CONSEQUENCE CLASSIFICATION, multi-criteria ALTERNATIVES ANALYSIS, water balance modeling, design analyses and evaluation of their results, design of all stages of the facility (including closure), monitoring requirements, construction requirements and specifications, operational constraints and construction drawings.
DEVIANCE ACCOUNTABILITY REPORT (DAR)	Provides an assessment of the cumulative impact of individual CHANGES to the TSF that are assessed, approved and documented (per the CHANGE MANAGEMENT SYSTEM) on the risk level of the achieved product and defines the potential requirements for managing the risk, if required, including updates to the design, DBR, OMS MANUAL or the monitoring program.
EMERGENCY RESPONSE PLAN (ERP)	A site-specific plan developed to identify hazards, assess capacity and prepare for an emergency based on TSF credible flow failure scenarios, and to respond if it occurs. This may be part of operation-wide

TERM	DEFINITION
	emergency response planning and includes the identification of response capacity and any necessary coordination with off-site emergency responders, local communities and public sector agencies. Refer to Newmont's "*Breach Analysis, Inundation Mapping and Emergency Response Plan Guidance*" (NEM-SER-GDL-013).
ENGINEER OF RECORD (EOR)	A professional engineer, duly licensed and registered in the jurisdiction in which the facility is located or registered by an appropriate international body where permitted by law, who provides technical expertise for the entire facility. The EOR advises whether or not the TSF (or components thereof) has been, or is being, designed in accordance with performance objectives and indicators; applicable guidelines, standards and regulatory requirements; and has been or is being constructed and operated, throughout the lifecycle, in accordance with the design intent, performance objectives and indicators, applicable guidelines, standards and regulatory requirements. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)	A methodological approach which draws on the elements of the established process of 'Plan, Do, Check, Act', and is a system and database which integrates procedures and processes for training personnel, monitoring, summarizing and reporting of specialized environmental performance information to internal and external stakeholders. Refer to Newmont's *"Tailings Storage Facility (TSF) and Heap Leach Facility (HLF) Environmental Management Standard*," (NEM-SER-STA-002).
INDEPENDENT TAILINGS REVIEW BOARD (ITRB)	A board that provides independent technical review of the design, construction, operation, closure and management of TSFs. The expertise of the ITRB members shall reflect the range of issues relevant to the facility and its context and the complexity of these issues. The ITRB provides long-term technical support and advice for a TSF operation, or may be a team of independent third-party reviewers providing project-specific review to support Newmont's stage-gate process. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
KNOWLEDGE BASE	The sum of knowledge required to support the safe management of a TSF throughout its lifecycle. The KNOWLEDGE BASE has an iterative

TERM	DEFINITION
	nature and needs to be continuously updated as the need arises and the context CHANGES. Fundamental elements would include a detailed site characterization and baseline knowledge of the social and environmental context. As design, construction and performance monitoring proceeds additional data are collected and required and the KNOWLEDGE BASE evolves.
MATERIAL[1] (adj.)	Important enough to merit attention, or having an effective influence or bearing on the determination in question. For the Standard, the criteria for what is MATERIAL will be defined by Newmont, subject to the provisions of local regulations and evaluated as part of any audit or external independent assessment that may be conducted on implementation.
OBSERVATIONAL METHOD	A continuous, managed, integrated, process of design, construction control, monitoring and review that enables previously defined modifications to be incorporated during or after construction, as appropriate. All of these aspects must be demonstrably robust. The key element of the OBSERVATIONAL METHOD is the proactive assessment at the design stage of every possible unfavorable situation that might be disclosed by the monitoring program, and the development of an action plan or mitigative measure to reduce risk in case the unfavorable situation is observed. This element forms the basis of a performance-based risk management approach. The objective is to achieve greater overall safety. See Peck, R.B. (1969) "Advantages and Limitations of the OBSERVATIONAL METHOD in Applied Soil Mechanics" Geotechnique 19, No2., pp.171-187.
OPERATIONS, MAINTENANCE & SURVEILLANCE (OMS) MANUAL	The OMS MANUAL defines and describes roles, responsibilities and levels of authority of personnel who perform activities related to TAILINGS management; the components of the facility covered in the manual; and plans, procedures and processes for the operation, maintenance and surveillance of the TSF to ensure that it functions in accordance with the design, meets performance objectives and regulatory or corporate requirements, supports risk management, links to the emergency preparedness system, and supports CHANGE management. The OMS MANUAL also describes the procedures for collecting, analyzing and reporting surveillance results in a manner

[1] For instance, a "MATERIAL" CHANGE.

TERM	DEFINITION
	consistent with the risk controls, CRITICAL CONTROLS and TRIGGER ACTION RESPONSE PLANS (TARPs). and that supports effective, timely decision-making. The link between OMS activities and CRITICAL CONTROLS management underscores the fact that it is essential that the OMS MANUAL be developed to reflect site-specific conditions and circumstances.
POPULATION AT RISK (PAR)	All those persons who would be directly exposed to floodwaters and/or tailings within the dam-break affected zone if they took no action to evacuate.
POTENTIAL LOSS OF LIFE (PLL)	The POTENTIAL LOSS OF LIFE is an estimated life loss calculated by multiplying the POPULATION AT RISK (PAR=number of people exposed/impacted to/by a risk event) in an area with the risk they are exposed, considering such factors as flow depth, velocity, and notification processes.
PRELIMINARY DESIGN	For the purpose of this Standard, PRELIMINARY DESIGN is a design performed to a level of detail sufficient to determine the differences between viable designs that adopt different external loading design criteria in terms of required footprints, volumes and drainage requirements.
REASONABLE STEPS	Steps taken to achieve a specific objective such that any negative impact on people, social systems, environment, local economy or costs is not out of balance with the intended benefits.
RECLAMATION	The process of restoring the mine site to a natural or economically useable state as provided in a RECLAMATION plan. RECLAMATION results in productive and sustainable landscapes to meet a range of conditions that might allow for biodiversity conservation, recreational or agriculture uses, or various forms of economic development.
RESPONSIBLE TAILINGS FACILITY ENGINEER (RTFE) / RESPONSIBLE TAILINGS FACILITY PERSON (RTFP)	An engineer or scientist responsible for the TSF. The RTFE/RTFP must be available at all times during construction, operations and closure. The RTFE/RTFP has clearly defined, delegated responsibility for management of the TSF and has appropriate qualifications and experience compatible with the level of complexity of the TSF. The RTFE/RTFP is responsible for the scope of work and budget requirements for the TSF, including risk management. The RTFE/RTFP

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	may delegate specific tasks and responsibilities for aspects of TAILINGS management to qualified personnel, but not accountability. Refer to Newmont's "*Tailings Management Governance Framework Guideline*" (NEM-TES-GDL-600).
RISK ASSESSMENT	The process of making a decision recommendation on whether existing RISKS are tolerable and present risk control measures are adequate, and if not, whether alternative risk control measures are justified or will be implemented. RISK ASSESSMENT incorporates the risk analysis and risk evaluation phases.
ROBUST DESIGN	The robustness of a TSF design depends on each particular situation and it may be associated with various aspects including, for example, the factor of safety against each of the potential failure modes, the presence or absence of materials with brittle behavior, the degree of brittleness of these materials, the degree of variability of the materials, the potential for thresholds of deformation that significantly affect the facility performance. The degree of robustness is related to the facility maintaining its overall integrity despite less than ideal performance of one or more of its components.
SAFE CLOSURE	A closed TSF that does not pose ongoing MATERIAL risks to people or the environment which has been confirmed by an ITRB or SENIOR INDEPENDENT TECHNICAL REVIEWER and signed off by the ACCOUNTABLE EXECUTIVE.
SENIOR INDEPENDENT TECHNICAL REVIEWER	An independent professional with in-depth knowledge and at least 15 years' experience in the specific area of the review requirements, e.g. TAILINGS design, operations and closure, environmental and social aspects or any other specific topic of concern. The independent reviewer is a third-party who is not, and has not been directly involved with the design or operation of the particular TSF.
TAILINGS	A by-product of mining, consisting of the processed rock or soil left over from the separation of the commodities of value from the rock or soil within which they occur.
TAILINGS MANAGEMENT	A framework that focuses on the key elements of management and governance necessary to maintain the integrity of TSFs and minimize the risk of CATASTROPHIC FAILUREs. The six key elements of the

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GOVERNANCE FRAMEWORK	governance framework are: (i) accountability, responsibility and competency; (ii) planning and resourcing; (iii) risk management; (iv) change management; (v) emergency preparedness and response; and (vi) review and assurance.
TAILINGS STORAGE FACILITY (TSF)	A facility that is designed and managed to contain the TAILINGS produced by the mine. Although TAILINGS can be placed in mined-out underground mines, for the purposes of the Standard, TSFs refer to facilities that contain TAILINGS in open pit mines or on the surface ('external TSFs'). For the purposes of the Standard, TSFs are higher than 2.5 m measured from the elevation of the crest to the elevation of the toe of the structure, or have a combined water and solids volume more than 30,000 m^3, unless the CONSEQUENCE CLASSIFICATION is 'High', 'Very High' or 'Extreme', in which case the structure is considered a TSF regardless of its size. For the purposes of this Standard, existing TSFs are facilities that are accepting new mine TAILINGS on the date that the Standard takes effect or not currently accepting new mine TAILINGS, but are still being managed by an Operator. All other facilities will be treated as New for the purposes of this Standard.
TAILINGS MANAGEMENT SYSTEM (TMS)	The site-specific TAILINGS MANAGEMENT SYSTEM (TMS) comprises the key components for management and design of the TSF and is often referred to as the 'framework' that manages these components. The TMS sits at the core of the Standard and is focused on the safe operation and management of the TSF throughout its lifecycle. The TMS follows the well-established "Plan-Do-Check-Act" cycle. A TMS includes elements such as: establishing policies, planning, designing and establishing performance objectives, managing CHANGE, identifying and securing adequate resources (experienced and/or qualified personnel, equipment, scheduling, data, documentation and financial resources), conducting performance evaluations and RISK ASSESSMENTS, establishing and implementing controls for risk management, auditing and reviewing for continual improvement, implementing a management system with clear accountabilities and

TERM	DEFINITION
	responsibilities, preparing and implementing the OMS and ERP. The TMS, and its various elements, must interact with other systems, such as the ENVIRONMENTAL MANAGEMENT SYSTEM (EMS), the operation-wide management system, and the regulatory system. This system interaction is fundamental to the effective implementation of the Standard.
TERMS OF REFERENCE (TOR)	A document that sets out the terms for roles and responsibilities, membership, timeframe for commencement, scope, reporting obligations, and transparency and accountability. TERMS OF REFERENCE may also be referred to as a Charter.
TRIGGER ACTION RESPONSE PLAN (TARP)	A TARP is a tool to manage risk controls, including CRITICAL CONTROLS. TARPs provide pre-defined trigger levels for performance criteria that are based on the risk controls and CRITICAL CONTROLS of the TSF. The trigger levels are developed based on the performance objectives and risk management plan for the TSF. TARPs describe actions to be taken if trigger levels are exceeded (performance is outside the normal range), to prevent a loss of control. A range of actions is pre-defined, based on the magnitude of the exceedance of the trigger level. Refer to Newmont's "*Tailings Storage Facility (TSF) Critical Control Report (CCR) Guideline*" (NEM-TES-GDL-603).
TSF LIFECYCLE	The phases in the life of a facility, which may occur in linear or cyclical succession, consisting of: (i) project conception, planning and design; (ii) initial construction; (iii) operation and ongoing construction (may include progressive RECLAMATION); (iv) interim closure (including care and maintenance); (v) closure (regrading, demolition and RECLAMATION); and (vi) post-closure (including relinquishment, reprocessing, relocation, removal).

5 REFERENCES

- Newmont Standard. "Tailings Storage Facility (TSF) & Heap Leach Facility (HLF) Environmental Management Standard." (NEM-SER-STA-002)
- Newmont Policy. "Operations and Resource Development Policy." (NEM-TES-POL-001)
- Newmont Policy. "Sustainability and Stakeholder Engagement Policy." (NEM-SER-POL-001)

- Newmont Guidance. "Tailings Storage Facility (TSF) Technical & Operations Guideline." (NEM-TES-GDL-601)
- Newmont Guidance. "Tailings Facility Geotechnical Guideline." (NEM-MIN-GDL-362)
- Newmont Guidance. "Tailings Management Governance Framework Guideline." (NEM-TES-GDL-600)
- Newmont Guidance. "Tailings Storage Facility (TSF) Risk Assessment Guideline." (NEM-TES-GDL-602)
- Newmont Guidance. "Tailings Storage Facility (TSF) Critical Control Report Guideline." (NEM-TES-GDL-603)
- Newmont Guidance. "Breach Analysis, Inundation Mapping and Emergency Response Plan Guidance." (NEM-SER-GDL-013)
- Newmont Guidance. "Tailings Storage Facility (TSF) & Heap Leach Facility (HLF) Environmental Management Guideline." (NEM-SER-GDL-002)
- Newmont Guidance. "Seismic Criteria Guideline." (NEM-MIN-GDL-363)
- Newmont Standard. "Human Rights Standard." (NEM-SER-STA-022)
- Newmont Guidance. "Human Rights Guideline." (NEM-SER-GDL-003)
- Newmont Standard. "Stakeholder Relationship Management Standard." (NEM-SER-STA-016)
- Newmont Guidance. "Stakeholder Relationship Management Guideline." (NEM-SER-GLD-011)
- Newmont Standard. "Water Management Standard." (NEM-SER-STA-001)
- Newmont Standard. "Investment Standard." (NEM-INV-STA-001)
- Newmont Standard. "Closure and Reclamation Standard." (NEM-SER-STA-002)
- Newmont Standard. "Management of Change Standard." (NEM-IMS-STA-013)
- Newmont Guidance. "Management of Change Guideline." (NEM-IMS-GDL-013)
- Newmont Standard. "Investment Standard." (NEM-INV-STA-001)
- Newmont. "Study/Project Requirements by Stage."
- Enablon or Cintellate Tool (Risk, Event, Action, Inspection modules)
- Global Tailings Review (GTR, 2020) – "Global Industry Standard on Tailings Management." Final Draft. 5 August 2020.
- International Council on Mining & Metals (ICMM, 2016) – "Position statement on preventing catastrophic failure of tailings storage facilities," December 2016.

- Peck, R.B. (1969) – "Advantages and Limitations of the Observational Method in Applied Soil Mechanics," *Geotechnique* 19:2, 171-187.

6 DOCUMENT CONTROL

VERSION	OWNER	AUTHOR	APPROVER	APPROVAL DATE
1.0	Dean Gehring (TS)	Kim Morrison (TS)	Global Governance Committee	October 15, 2020

ANNEX 1: CONSEQUENCE CLASSIFICATION MATRIX & MINIMUM DESIGN CRITERIA

The intention of this Annex is to provide a consistent manner to establish minimum external loading design criteria for the safe design of TSFs. Alternative guidance exists, for example, by reputable national dam associations, which, in turn, form the basis of jurisdictional regulatory requirements. However, for the purposes of this Newmont Standard, the CONSEQUENCE CLASSIFICATION system and corresponding design criteria should be considered minimum requirements for management and design of TSFs within Newmont.

Table 1. CONSEQUENCE CLASSIFICATION Matrix (GTR, 2020).

CONSEQUENCE CLASSIFICATION	Incremental Losses				
	POPULATION AT RISK (PAR)	**POTENTIAL LOSS OF LIFE (PLL)**	**Environment**	**Health, Social & Cultural**	**Infrastructure & Economics**
Low	None	None expected	Minimal short-term loss or deterioration of habitat or rare and endangered species.	Minimal effects and disruption of business and livelihoods. No measurable effect on human health. No disruption of heritage, recreation, community or cultural assets.	Low economic losses: area contains limited infrastructure or services. <US$1M
Significant	1-10	Unspecified	No significant loss or deterioration of habitat. Potential contamination of livestock/ fauna water supply with no health effects. Process water low potential toxicity. Tailings not potentially acid generating and have low	Significant disruption of business, service or social dislocation. Low likelihood of loss of regional heritage, recreation, community, or cultural assets. Low likelihood of health effects.	Losses to recreational facilities, seasonal workplaces, and infrequently used transportation routes. <US$10M

CONSEQUENCE CLASSIFICATION	Incremental Losses				
	POPULATION AT RISK (PAR)	POTENTIAL LOSS OF LIFE (PLL)	Environment	Health, Social & Cultural	Infrastructure & Economics
			neutral leaching potential. Restoration possible within 1 to 5 years.		
High	10-100	Possible (1-10)	Significant loss or deterioration of critical habitat or rare and endangered species. Potential contamination of livestock/ fauna water supply with no health effects. Process water moderately toxic. Low potential for acid rock drainage or metal leaching effects of released tailings. Potential area of impact 10 km^2– 20 km^2. Restoration possible but difficult and could take >5 years.	500-1,000 people affected by disruption of business, services or social dislocation. Disruption of regional heritage, recreation, community or cultural assets. Potential for short term human health effects.	High economic losses affecting infrastructure, public transportation, and commercial facilities, or employment. Moderate relocation/compensation to communities. <US$100M
Very High	100-1000	Likely (10-100)	Major loss or deterioration of critical habitat or rare and endangered species. Process	>1,000 people affected by disruption of business, services or social dislocation for	Very high economic losses affecting important infrastructure or services (e.g., highway, industrial facility, storage facilities,

CONSEQUENCE CLASSIFICATION	Incremental Losses				
	POPULATION AT RISK (PAR)	POTENTIAL LOSS OF LIFE (PLL)	Environment	Health, Social & Cultural	Infrastructure & Economics
			water highly toxic. High potential for acid rock drainage or metal leaching effects from released tailings. Potential area of impact >20 km2. Restoration or compensation possible but very difficult and requires a long time (5 years to 20 years).	more than one year. Significant loss of national heritage, community or cultural assets. Potential for significant long-term human health effects.	for dangerous substances), or employment. High relocation/compensation to communities. <US$1B
Extreme	>1000	Many (>100)	Catastrophic loss of critical habitat or rare and endangered species. Process water highly toxic. Very high potential for acid rock drainage or metal leaching effects from released tailings. Potential area of impact >20 km^2. Restoration or compensation in kind impossible or requires a very long time (>20 years).	>5,000 people affected by disruption of business, services or social dislocation for years. Significant National heritage or community facilities or cultural asset destroyed. Potential for severe and/or long- term human health effects.	Extreme economic losses affecting critical infrastructure or services, (e.g., hospital, major industrial complex, major storage facilities for dangerous substances) or employment. Very high relocation/compensation to communities and very high social readjustment costs. >US$1B

There is a distinction between Operations and Post-Closure (also referred to as Passive Care Closure) where Operations involves all phases of construction and operation, periods of temporary cessation of operations, and the Closure phase (transition phase into post-closure also referred to as active care closure). Post-Closure refers to permanently closed facilities that have been configured for their perpetual form/state and thereby will be subjected to the maximum time of exposure irrespective of the CONSEQUENCE CLASSIFICATION for the facility.

The term "Probable Maximum Precipitation" (PMP) or "Probable Maximum Flood" (PMF) are terms sometimes used to denote extreme hydrological events. The concepts of PMP and PMF are acceptable for assigning flood loading if they meet, or exceed, the requirements below for Extreme or Very High CONSEQUENCE CLASSIFICATION facilities and/or facilities at the Post-Closure (or Passive Care Closure) phase.

Table 2. Flood Design Criteria (modified after GTR, 2020).

CONSEQUENCE CLASSIFICATION	Flood Criteria[1] – Annual Exceedance Probability	
	Operations and Closure (Active Care)	Post-Closure (Passive Care)
Low	1/1,000	1/10,000
Significant	1/2,475	1/10,000
High	1/5,000	1/10,000
Very High	1/10,000	1/10,000
Extreme	1/10,000	1/10,000

[1]For existing TSFs, the EOR, with review by the ITRB or a SENIOR INDEPENDENT TECHNICAL REVIEWER, may determine that the upgrade to this design criteria is not feasible or cannot be retroactively applied. In this case, the ACCOUNTABLE EXECUTIVE shall approve and document the implementation of measures to reduce both the probability and the consequences of a TSF failure in order to reduce the risk to a level AS LOW AS REASONABLY PRACTICABLE (ALARP). The basis and timing for addressing the upgrade of existing TSFs shall be risk-informed and carried out as soon as reasonably practicable.

The selection of the design ground motion should consider the seismic setting and the reliability and applicability of the probabilistic and deterministic methods for seismic hazard assessment. The Maximum Credible Earthquake (MCE) is part of a deterministic approach that can govern in some areas. The method that produces the most appropriate ground motion for the facility safety should be used for the design.

Table 3. Seismic Design Criteria (modified after GTR, 2020).

CONSEQUENCE CLASSIFICATION	Seismic Criteria[1] – Annual Exceedance Probability	
	Operations and Closure (Active Care)	Post-Closure (Passive Care)
Low	1/1,000	1/10,000
Significant	1/2,475	1/10,000
High	1/5,000	1/10,000
Very High	1/10,000	1/10,000
Extreme	1/10,000	1/10,000

[1]For existing TSFs, the EOR, with review by the ITRB or a SENIOR INDEPENDENT TECHNICAL REVIEWER, may determine that the upgrade to this design criteria is not feasible or cannot be retroactively applied. In this case, the ACCOUNTABLE EXECUTIVE shall approve and document the implementation of measures to reduce both the probability and the consequences of a TSF failure in order to reduce the risk to a level AS LOW AS REASONABLY PRACTICABLE (ALARP). The basis and timing for addressing the upgrade of existing TSFs shall be risk-informed and carried out as soon as reasonably practicable.