



STATE MINING AND GEOLOGY BOARD

DEPARTMENT OF CONSERVATION

801 K Street • Suite 2015 • Sacramento, California 95814

SURFACE MINE INSPECTION GUIDELINE

This *Guideline* was developed by the State Mining and Geology Board (SMGB) with the cooperation of the Department of Conservation's Office of Mine Reclamation (OMR). This document recognizes that those who conduct surface mine field inspections will have specific professional expertise, but may not be fully knowledgeable in all facets of surface mine inspections, and the requirements of the Surface Mining and Reclamation Act of 1975 (SMARA). This *Guideline* is a suggested model for inspection preparation, performance, and documentation, for use by SMGB staff in carrying out their responsibilities under Public Resources Code (PRC) §2774(b) of the SMARA regarding the annual inspection of surface mines, and is meant to be used in conjunction with the Surface Mining Inspection Report form (MRRC-1) as adopted by the SMGB in July of 2013. The extent to which this *Guideline* is employed by anyone other than SMGB staff should be at the discretion of the individual inspector in addressing the circumstances particular to each mine site.

Inspection Date: _____ **CA Mine ID Number:** _____

Mine Name:
(as Shown on Approved Reclamation Plan) _____

Mine Contact Name: _____ **Mine Contact Phone No.:** _____

Mine Coordinates:
(at mine entrance) Latitude: _____ Longitude: _____

SMARA Lead Agency: _____

Inspector: _____ **Phone No.:** _____

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1.0 PRE-MINE INSPECTION -- Prior to the commencement of the physical inspection of the mine site, the Inspector should perform the following familiarization process.

- 1.01** The Mine Inspection is to be performed in conformance with PRC §2774(b) within six months of receipt by the Department of Conservation (DOC) of the Mining Operation Annual Report (MRRC-2). The Mining Operation Annual Report is filed pursuant to PRC §2207, and the Inspector should obtain and review a copy of this Report prior to conducting the inspection.
- 1.02** Prior to conducting the field inspection, the Inspector shall contact the mine operator's site contact person, or designated agent that is listed on the Mining Operation Annual Report and schedule a date and time for the inspection. It is important that a representative who is knowledgeable about the mine's operations be present during the inspection. In addition, a representative from the local lead agency should be invited to accompany the Inspector during the scheduled inspection. The inspection team should be limited to those individuals necessary to conduct the mine inspection.
- 1.03** Prior to conducting the field inspection, the inspector should review the approved reclamation plan and any amendments, as well as any other documents included by reference, including conditions of approval, other permit requirements and supplementary documents, such as environmental documents prepared for the project pursuant to Division 13 (commencing with Section 21000) that specifically relate to reclamation of the mine site. The most recently approved Financial Assurance Cost Estimate and any pending or ongoing enforcement actions should also be reviewed. Conditions of approval that relate to facility operations solely of local concern, such as hours of operation, noise, and dust control are not subject to the inspection.

Information gathered during review of these documents should be utilized by the Inspector to fill out Block I through Block VII, and the applicable portions of Column 2 in Block VIII, of the Surface Mining Inspection Report Form (MRRC-1).

- 1.04** Prior to conducting the field inspection, the Inspector should examine pertinent files and records to determine if the mine is current in its reporting activities. As noted above, the Inspector should obtain and review a copy of the most recent Mining Operation Annual Report prior to conducting the inspection. The year of the most recent filed Mining Operation Annual Report should be noted in Block V of the Surface Mining Inspection Report. If the Mining Operation Annual Report is missing or does not appear to be complete, the Inspector should contact OMR's Reporting and Compliance Unit in order to confirm the status of the operation with regards to its annual reporting requirements.

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- 1.05** The inspector should review the previous year's Surface Mining Inspection Report (MRRC-1), and any attached sheets/documents, in order to identify any noted violations, corrective measures and/or recommendations. The Inspector should determine if the information in the most recent Mining Operation Annual Report, as filed by the operator, conflicts with or contradicts information in the previous year's Surface Mining Inspection Report.
- 1.06** The Inspector should review the current Financial Assurance Mechanism(s) on file for the subject operation. The Inspector should verify the amount, the expiration date and date of SMARA Lead Agency approval of each Financial Assurance Mechanism. In addition, the Inspector should note whether a Financial Assurance Mechanism is pending review and approval by the Lead Agency.
- 1.07** The Inspector should indicate if there has been a change of operator of record since the last inspection and, if so, note the date the change occurred and whether the new operator has signed any document acknowledging reclamation responsibility under the approved reclamation plan, and if the new operator has posted a Financial Assurance Mechanism. If a replacement Financial Assurance Mechanism has not been posted, indicate the status of the new operator's replacement Financial Assurance Mechanism. Per PRC § 2773.1(c) and Guideline number 19 of the SMGB's Financial Assurance Guidelines, when operatorship is transferred, "the original financial assurance must remain in effect until the lead agency has approved, following department review, the replacement assurances provided by the successor operator."
- 1.08** Review the most recent Financial Assurance Cost Estimate (FACE) and note its date of preparation and date of approval by the Lead Agency. Determine if the current Financial Assurance Mechanism amount is in agreement with (i.e. equals or exceeds) the most recent FACE amount. Determine if a recently revised FACE is pending review by the Lead Agency, and note if rejection of a FACE amount has been appealed by the operator and the status of such appeal.
- If the FACE is not adequate (i.e. out of date or does not address all reclamation plan issues) and / or the Financial Assurance Mechanism is not adequate (i.e. has not been updated, is on incorrect forms, incorrectly completed, etc.), note the areas of inadequacy and include them as possible deficiencies or violations in the final inspection report.
- 1.09** Obtain a recent base map, aerial photograph, and/or topographic map of the mine site showing the site's facilities at an appropriate scale for ease in mapping the conditions observed during the physical inspection. If possible, it

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is recommended that the approved reclamation plan maps be overlain on a base map to aid in inspection.

2.0 MINE INSPECTION -- During the conduct of the site inspection, it is recommended that the operator or the operator's representative that is familiar with the mine's characteristics and activities accompany the Inspector. As the inspection proceeds, the Inspector should ask the operator about any activities that the Inspector believes may not be in compliance with SMARA or the approved Reclamation Plan, or that appear to be new from the previous year's operations.

2.01 Once on site, and prior to commencing the mine inspection, the Inspector should perform the following activities:

- A.** Meet with the operator or the operator's representative at the site.
- B.** Introduce all members of the inspection party.
- C.** Explain the purpose and scope of the inspection.
- D.** Review the safety equipment requirements with the operator or the operator's safety officer for that mine.
- E.** Ask the operator for information on the mine's current activities (is the site operational, is material extraction occurring, is blasting to take place, are trucks operating, etc.). Ask about any safety concerns about which the inspectors need to be aware.

2.02 During the inspection, the Inspector should utilize the reclamation plan requirement information already filled out in Column 2 of Block VIII of the Surface Mining Inspection Report (MRRRC-1) form as a guide for efficient completion of the inspection. Existing conditions at the mine site should be observed and described as applicable in Column 3 of Block VIII of the Surface Mining Inspection Report form. Any inconsistencies and/or compliance issues with the requirements of the approved Reclamation Plan, as listed in Column 2, should be noted. Photographs and physical measurements of the site and its features should be obtained whenever possible to document findings and the condition and appearance of the mine site, especially any conditions that may preclude reclamation of the site in accordance with the approved Reclamation Plan requirements. Such conditions should be noted as a violation in Column 4 of Block VIII of the Surface Mining Inspection Report (MRRRC-1) form.

2.03 It is not expected that all reclamation plans will include each item in Block VIII of the Surface Mining Inspection Report (MRRRC-1), or be limited to the items listed. Items in Column 1 of Block VIII that are not operative requirements in the reclamation plan may not need to be addressed by the inspection. Operative reclamation plan requirements not listed in Items 1 through 12 may be listed in Item 13, under "Other Reclamation Plan Requirements." As

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applicable, the Inspector should address the following aspects of the surface mining operation during the physical site inspection:

- A.** Observe and describe the current mining operation and mineral product(s) being extracted. Identify any unique or relevant ore extraction characteristics not described in the Reclamation Plan that may impact the reclamation of the site. Note whether the approved end use of the site will be achievable based on current site conditions.

- B.** Sketch the mine's current development and conditions on a base map with annotations of findings. Note the proximity of surface mining operations to existing property boundaries, permit boundaries and approved Reclamation Plan boundaries. Also observe condition of required setback areas.

- C.** Observe and visually describe condition of existing mined slopes. Note the current slope configuration and conditions (e.g. are slopes clean or vegetated, do they have erosion rills or gullies, are slumps or slides apparent, etc.); do slopes meet angle and height requirements as prescribed in the Reclamation Plan or Conditions of Approval; if steeper than described can current slopes be reclaimed to the angles and heights prescribed in the Reclamation Plan or Conditions of Approval within property/reclamation plan boundaries; are the slopes supposed to be benched at specific intervals; what is the condition of the inter-bench slope stability. Note if any fill slopes are under construction or in their final configuration. Are fill slopes being compacted if required by the Reclamation Plan? Determine if any backfilling of an excavation has occurred. Determine if grading activities require engineered designs or specifications, or Permits as described in the approved Reclamation Plan. Based on the observed condition of the mine slopes, should a licensed geologist or engineer be consulted to assess the long term stability of the slopes; that is, might the present condition of the mine slopes indicate that their approved final design as called for in the reclamation plan may not be achievable?

- D.** Observe and describe any erosion features and erosion control structures at the surface mining operation. Note whether there is an existing Storm Water Pollution Prevention Plan applicable to the site, and whether requirements of such plan are being followed. Note the existence and condition of any best management practices (BMPs), surface grading or vegetation meant to control erosion. Determine whether such measures are in compliance with the approved Reclamation Plan.

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- E.** Note the condition and purpose of all ponds and water retention structures on the site. Are existing ponds properly designed for their intended function? Are pond capacities adequate and are such features being properly maintained?
- F.** Observe and describe the location and condition of surface waters on site or in the immediate vicinity of the surface mining operation. Note any water or sediment releases into the State's Waters. Describe the condition of any buffer zones, berms or BMPs at the site meant to protect surface waters. Note the presence and condition of graded surfaces, catchment basins, site drainage features or other erosion control features on site meant to protect streams and/or wetlands. Describe any stream diversions or channel flow impediments and note whether they are in compliance with the approved Reclamation Plan.
- G.** Observe and describe the occurrence and condition of any sensitive wildlife or plants identified in the approved Reclamation Plan or related documents. Note whether listed species are being protected as required.
- H.** Observe and describe the condition, configuration, and characteristics of any topsoil, overburden, mine waste and/or tailings piles. Observe and describe the activities for soil salvaging and stockpiling for future reclamation operations. Check if signs are present indicating that the soil stockpile is for reclamation use only. Note the location and stability of existing topsoil stockpiles, and whether such stockpiles are in conformance with the approved Reclamation Plan. If topsoil is being utilized at the surface mining operation for reclamation activities, is it being applied in accordance with the approved Reclamation Plan? Note whether mine waste and/or overburden piles are in approved locations and being properly managed. Describe any suspected contamination concerns.
- I.** Observe and describe any active revegetation activities. Note the status and condition of revegetation test plot programs. Note if the revegetation programs are in accordance with the requirements of the approved Reclamation Plan, and if monitoring is occurring. Request copies of any monitoring data. Observe and describe any naturally occurring revegetation. Observe the presence of any invasive species that are inconsistent with the approved Reclamation Plan. Based on observations, determine if a qualified Botanist should be consulted.
- J.** Note the disposition of existing structures at the surface mining operation. Are existing structures in use for mining related processes? Do any

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existing structures preclude completion of reclamation activities at the site as required by the approved Reclamation Plan or Permit(s)?

- K.** Observe and describe permanent and mobile mining equipment in use or stored at the site. Will any equipment remain on site at the completion of surface mining operations? Are anticipated costs of removal of existing equipment considered within the most recent Financial Assurance Cost Estimate?
- L.** Are there any openings to underground workings such as portals or adits, or any abandoned wells associated with the facility? Do any of these features present an imminent risk to public health and safety? Are observed features included in the approved Reclamation Plan for the site?
- M.** Observe and describe the status of any other reclamation plan requirements that are not included in Column 1 of Block VIII of the Surface Mining Inspection Report (MRRC-1) form. Such requirements may include specific Permit conditions and/or mitigation measures within environmental documents that affect reclamation of the surface mining operation.

2.04 In addition to the above items, during conduct of the physical site inspection the Inspector should make note of current weather conditions, should record the start time and end time of the inspection, and should record the names and affiliations of all inspection attendees. This information should be entered into Block IX of the Surface Mining Inspection Report (MRRC-1) form.

2.05 Prior to completion of the physical site inspection, the Inspector should determine if there are any observed and documented conditions that are related to another regulatory agency, such as some form of contamination or pollution. State law requires the Inspector to report within 48 hours possible violations of the law when observed.

2.06 Prior to completion of the physical site inspection, the Inspector should make a preliminary determination of whether the observed operation and the physical condition of the mine site allow for reclamation in accordance with the requirements contained in the approved reclamation plan. If there are obvious new deficiencies or violations observed, these should be documented and called to the attention of the operator during the inspection. The Inspector should attempt to determine if previously cited deficiencies or violations have been corrected, partially corrected, or not addressed by the operator. It is recommended that the operator be informed of the Inspector's preliminary determination regarding the status of previously cited deficiencies or violations during the inspection

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2.07 Following the completion of the inspection tour, the Inspector should review the preliminary results and findings of the inspection with the operator or the operator's representative, and any lead agency personnel in attendance. Additionally, the Inspector should provide a tentative time frame to the operator or the operator's representative for when a completed SMARA Mine Inspection Report will be provided.

3.0 POST MINE INSPECTION -- This section specifies the steps necessary to secure the information gathered during the physical site inspection, and prepare an inspection report for distribution.

3.01 The Inspector should prepare a draft copy of the Surface Mining Inspection Report (form MRRC-1), and submit the form to an appropriate in-house reviewer for comments. In completing the MRRC-1, the Inspector should address the following items:

- A.** Enter the Status of Mine Code in Block IX. Status of Mine Code is determined based on the Operator's submitted Mining Operation Annual Report and reported production under CCR § 3695.
- B.** Enter the Status of Reclamation Code in Block IX. Status of Reclamation Code is determined by the Inspector based on observations made during the physical site inspection and review of the approved Reclamation Plan. If reclamation activities have commenced, the Inspector should determine an approximate acreage under reclamation and enter that number in Block IX. Similarly, the Inspector should enter the acreage determined by the SMARA Lead Agency to be reclaimed in accordance with the approved Reclamation Plan in Block IX.
- C.** Enter the specific latitude and longitude of the mine entrance in Block VI of the MRRC-1.
- D.** Based on observations made during the physical site inspection, the Inspector should determine the approximate total disturbed acreage of the surface mining operation. In addition, the Inspector should determine the approximate pre-SMARA acreage, if any, associated with this surface mining operation. Such information should be included in Block IX of the MRRC-1.
- E.** The Inspector should enter the amount of disturbed acreage identified in the most recent Financial Assurance Cost Estimate for the site in Block IX of the MRRC-1.

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F. Also in Block IX, the Inspector should enter the date of the previous annual inspection and number of violations noted at that time. The Inspector should determine if the previous violations, if any, have been corrected and enter such information on the MRRC-1.

3.02 The Inspector should prepare a draft SMARA Mine Inspection Report containing a detailed description of the conditions of the mine, photographs, surveys and measurements, conclusions regarding the mine's condition and compliance with SMARA, and a list of violations, preventative measures and recommendations to correct deficiencies. The SMARA Mine Inspection Report should also address the adequacy of the current Financial Assurance Mechanism and most recent Financial Assurance Cost Estimate, and include any recommendations for revising the Financial Assurance. The draft SMARA Mine Inspection Report should be submitted to an appropriate in-house reviewer for comments. In completing the draft SMARA Mine Inspection Report, the Inspector should include the following items:

- A.** Describe mine inspection activity; who was present, areas observed and why, and any areas that were not allowed to be observed, if applicable.
- B.** Describe restrictions to public access to the site (e.g. gates, fences, warning signs).
- C.** Determine if the existing FACE equates to the actual physical site conditions. Consider if the current Financial Assurance Mechanism is adequate to complete reclamation of the entire site if mining activities ceased at any time within the coming year. Determine if the Financial Assurance Mechanism would adequately cover the remediation of any deficiencies or violations noted during the current inspection.
- D.** Recommendations for proposed actions to correct observed violations should be provided. The recommendations may relate to proposed actions to be taken by the operator, or to further inspection activities by specialists. The recommendations may include the use of California licensed geologists or engineers to more thoroughly evaluate suspected problems dealing with slope stability issues or other geological or engineering issues; the use of botanists to investigate revegetation issues; and the use of any other specialists where the scope of concern may be outside the Inspector's particular expertise.

3.03 Prepare and sign the Surface Mining Inspection Report (MRRC-1) form incorporating any reviewer comments for changes. Prepare and sign the SMARA Mine Inspection Report, incorporating any reviewer comments for changes.

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- 3.04** The completed Inspection Report and an Inspection Notice must be submitted to the Office of Mine Reclamation within 30 days of the completion of the inspection. The completion of the inspection is the date that the analysis of the inspection data has been finalized and incorporated into the final SMARA Mine Inspection Report and MRRC-1. For surface mining operations under the jurisdiction of the SMGB as the SMARA Lead Agency, the inspection is considered complete on the date that the SMGB accepts the SMARA Mine Inspection Report as complete at a public hearing.

4.0 INSPECTION REPORT DISTRIBUTION -- The final Surface Mining Inspection Report (MRRC-1) form, and the final SMARA Mine Inspection Report that includes photographs, cross-sections, maps and diagrams, survey measurements, reports by specialists (geologists, engineers, botanists, etc.), are to be distributed as follows:

- One copy of the inspection notice, the final Surface Mining Inspection Report (MRRC-1) and the final SMARA Mine Inspection Report (all pages and attachments) shall be provided to the Mine Operator and the operator's designated agent by the lead agency.
- The Lead Agency must retain the original copy of the final Surface Mining Inspection Report (MRRC-1) and submit one copy of the final Surface Mining Inspection Report (MRRC-1), along with an original Inspection Notice (PRC Subsection 2774(b)), within 30-days of the completion of the inspection, to:

Department of Conservation
Office of Mine Reclamation
801 K St MS 09-06 Sacramento, CA 95814-3529

- If any part of the operation inspected is on BLM or USFS land, one copy of final Surface Mining Inspection Report (MRRC-1) should be forwarded to the appropriate BLM or USFS office.