

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2017-0011  
REQUIRING  
NEWMONT USA, LTD.  
NORTH STAR WATER TREATMENT FACILITY  
NEVADA COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2016-0076  
(NPDES PERMIT CAG995002)

The California Regional Water Quality Control Board, Central Valley Region, (hereinafter Central Valley Water Board) finds that:

1. On 23 February 2017, the Central Valley Water Board issued a Notice of Applicability (NOA) R5-2016-0076-001 under General Order No. R5-2016-0076 for Limited Threat Discharges to Surface Waters (Limited Threat General Order) for Newmont USA, Ltd.'s (Discharger) North Star Water Treatment Facility (Facility). Order R5-2016-0076 regulates the treated discharge from mine drainage from the Drew Tunnel, two North Star Mine features (adit and pipe culvert), and an adjacent spring to an unnamed tributary to Wolf Creek.
2. The Limited Threat General Order contains in part, Effluent Limitations and Discharge Specifications V.A.1 Table 4 as follows:

*1. Priority Pollutants and Constituents of Concern*

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Iron, Total Recoverable	µg/L	470	930
Manganese, Total Recoverable	µg/L	80	160

The final effluent limits for iron and manganese prescribed in General Order No. R5-2016-0076 are applicable modified effluent limits, for which the Discharger cannot consistently comply.

3. On 4 August 2014, the Central Valley Water Board issued NOA R5-2013-0073-037 under General Order No. R5-2013-0073 for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water which allows for the mine drainage from the Drew Tunnel to be treated via a green sand/multi-media water treatment system on the City of Grass Valley's Wastewater Treatment Plant property and discharged to Wolf Creek. NOA R5-2013-0073-037 contained the following effluent limitations for iron and manganese:

Parameter	Units	Effluent Limitations
		Annual Average
Iron, Total Recoverable	µg/L	300
Manganese, Total Recoverable	µg/L	50

4. The North Star pipe culvert and adit were historically directly discharging to Wolf Creek. On 15 August 2014, the Executive Office issued Cleanup and Abatement Order No. R5-2014-0706 requiring the Discharger to collect and convey the water from the North Star Mine drainage features to the Facility by 31 December 2015 and extended to 31 December 2016 due to factors out of the Discharger's control. The Discharger has requested additional time to complete the Facility due to weather and other factors out of their control that caused construction delays; the Facility is currently planned for completion on 1 March 2017. With the completion of the Facility, the adit, pipe culvert, and spring discharges will be collected using an extraction well within the North Star mine workings where it will be pumped to the Facility for treatment to prevent direct discharge to Wolf Creek. An additional pipeline connecting the Drew Tunnel to the North Star pipeline will be constructed to convey water to the Facility and the existing Drew Tunnel treatment system will be decommissioned.
5. The groundwater will begin treatment at the Facility through an aeration channel before entering a 368,000 cubic-foot HDPE-lined sedimentation pond which allows for iron, manganese, and other metal species to settle out. The water will then be conveyed by gravity through HDPE piping to a 2.5 acre HDPE-lined, constructed wetland which treats the water through oxidation, settlement, and filtration of precipitated solids by the wetland vegetation. From the wetland, the water flows to a lined limestone bed which will provide aeration and pH adjustment to facilitate the removal of residual manganese prior to discharge via an HDPE pipe to a tributary of Wolf Creek.

**Need for Time Schedule Order and Legal Basis**

6. The Discharger installed a new passive treatment system that will be operational by 1 March 2017. On 5 October 2016, the Discharger requested that it be allowed until 29 February 2020 to achieve compliance with the final effluent limitations for iron and manganese. The Discharger anticipates that approximately three years is necessary for the passive treatment system to reach its design capacity for the removal of iron and manganese. This consists for at least two growing seasons for wetland vegetation to grow and an additional year afterwards for the biogenic processes to mature.
7. Additionally, the Discharger indicated that it may also require time to obtain hydraulic containment of the unknown quantity of water within the North Star mine workings. In order to collect the mine drainage, the Discharger has installed an extraction well to convey the groundwater to the Facility. If the mine drainage is not effectively collected using the existing pump and well, additional time will be needed to re-drill the extraction well or drill additional wells and achieve hydraulic containment of the drainage.

### **Mandatory Minimum Penalties**

8. California Water Code sections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. California Water Code section 13385(j)(3) exempts the discharge from mandatory minimum penalties *“where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300 or 13308, if all the [specified] requirements are met...for the purposes of this subdivision, the time schedule may not exceed five years in length...”*.
9. Per the requirements of California Water Code section 13385(j)(3), the Central Valley Water Board finds that:
  - a. This Order specifies the actions that the Discharger is required to take in order to correct the violations that would otherwise be subject to California Water Code sections 13385(h) and (i).
  - b. The Discharger is not able to consistently comply with the Limited Threat General Order’s effluent limitations for iron and manganese, which are modified regulatory requirements that have become applicable to the waste discharge. The Discharger’s passive treatment system is a new or modified control measure necessary to comply with the effluent limitations and cannot be designed, installed, and put into operation within 30 calendar days, as reflected in the compliance schedule in this Order.
  - c. This Order establishes a time schedule to bring the waste discharge into compliance with the effluent limitations that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitations.
10. Compliance with this Order exempts the Discharger from MMPs for violations of effluent limitations for iron and manganese found in the Limited Threat General Order as follows:
  - a. This Order provides protection from MMPs for iron and manganese at Discharge Point No. 001 until 29 February 2020.
11. In accordance with Water Code section 13385(j)(3)(C)(i), this time schedule order for iron and manganese does not exceed five years from the date the effluent limitations became applicable to the waste discharge.
12. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for iron and manganese at Discharge Point No. 001 contained in the Limited Threat General Order. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.
13. This Order includes performance-based interim limitations for iron and manganese at Discharge Point No. 001. The interim effluent limitations for iron and manganese are based on the current treatment plant performance
14. Data from March 2009 through March 2012 was used to calculate the interim effluent limitations in the table below. The following table summarizes the calculations of the daily maximum and average monthly interim effluent limitation for these constituents:

Parameter	Units	Mean	Standard Deviation	Interim Effluent Limitation Maximum Daily <sup>1</sup>	Interim Effluent Limitation Average Monthly <sup>2</sup>
Iron, Total Recoverable	µg/L	3100	750	9000	4500
Manganese, Total Recoverable	µg/L	1700	110	4000	2000

<sup>1</sup> Determined using MDEL/AMEL Multiplier from the Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) for a coefficient of variation of 0.6.

<sup>2</sup> Mean+3.3Standard Deviations of the mean.

15. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim effluent limitation included in this Order. Interim effluent limitations are established when compliance with the final effluent limitations cannot be achieved by the existing Facility. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim effluent limitation, however, establishes an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.
16. If an interim effluent limitation contained in this Order is exceeded, then the Discharger is subject to MMPs for that particular exceedance as it will no longer meet the exemption in Water Code 13385(j)(3). It is the intent of the Central Valley Water Board that a violation of an interim monthly average effluent limitation subjects the Discharger to only one MMP for that averaging period. In addition, a violation of an interim daily maximum effluent limit subjects the Discharger to one MMP for the day in which the sample was collected.

### Other Regulatory Requirements

17. California Water Code section 13300 states: *“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”*
18. Water Code section 13267 states in part: *In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*
19. The Discharger owns and operates the wastewater treatment facility which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine

compliance with the requirements specified in Order R5-2016-0076-001, the Limited Threat General Order, and with this Order.

20. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) (“CEQA”) pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass’n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).

**IT IS HEREBY ORDERED THAT:**

1. Pursuant to California Water Code Sections 13300 and 13267, the Discharger shall comply with the following time schedule to submit reports and ensure completion of the compliance project described in Findings 6 and 7, above. All reports shall be signed and stamped by a registered professional, as described in ordered item 4 below.

<b>Task</b>	<b>Compliance Date</b>
Submit a new or updated Pollution Prevention Plan for iron and manganese that meets the requirements specified in California Water Code Section 13263.	1 September 2017
Submit Progress Reports <sup>1</sup>	30 June, annually
Achieve complete hydraulic containment of the North Star mine drainage features.	1 March 2020
Comply with final effluent limitations for iron and manganese.	1 March 2020

<sup>1</sup> The progress reports shall detail the steps taken to comply with this Order, including documentation showing completion of tasks, construction progress, evaluation of the effectiveness of the implemented measures, and assessment of whether additional measures are necessary to meet the compliance dates.

2. The following interim receiving water limitation shall be effective upon adoption of this Order, and shall apply in lieu of the corresponding final effluent limitations in the Limited Threat General Order. The Discharger shall comply with the following interim effluent limitations until 29 February 2020, or when the Discharger is able to come into compliance, whichever is sooner:

<b>Parameter</b>	<b>Units</b>	<b>Interim Effluent Limitation Maximum Daily</b>	<b>Interim Effluent Limitation Average Monthly</b>
Iron, Total Recoverable	µg/L	9000	4500
Manganese, Total Recoverable	µg/L	4000	2000

3. Any person signing a document submitted under this Order shall make the following certification:

*“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”*

4. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of

registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 24 February 2017.

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PAMELA C. CREEDON, Executive Officer