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## Central Valley Regional Water Quality Control Board

23 February 2017

William S. Lyle  
Vice President  
Newmont USA, Ltd.  
PO Box 250  
Ford, WA 99013

CERTIFIED MAIL  
7012 2210 0002 1420 2194

### **NOTICE OF APPLICABILITY (NOA); LIMITED THREAT GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076; NORTH STAR WATER TREATMENT FACILITY, NEVADA COUNTY**

Our office received a Report of Waste Discharge application on 16 September 2016 from Newmont USA, Ltd. (hereinafter Discharger), for discharge of treated mine drainage to surface water. Based on the application packet and subsequent information submitted by the Discharger, staff has determined that the project meets the required conditions for approval under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order), Tier 2. This project is hereby assigned Limited Threat General Order R5-2016-0076-001 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2016-0076-001**, in your correspondence and submitted documents.

The enclosed Limited Threat General Order may also be viewed at the following web address: [http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/general\\_orders/r5-2016-0076\\_mod.pdf](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076_mod.pdf). You are urged to familiarize yourself with the contents of the entire document. The Limited Threat General Order prescribes mandatory discharge monitoring and reporting requirements. The project activities shall be operated in accordance with the requirements contained in this NOA and the Limited Threat General Order.

### **CALIFORNIA TOXICS RULE / STATE IMPLEMENTATION POLICY MONITORING**

The Limited Threat General Order incorporates the requirements of the California Toxics Rule (CTR) and the State Water Resources Control Board's (State Water Board), *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, 2005, also known as the State Implementation Policy (SIP). Screening levels for CTR constituents are found in Attachment I of the Limited Threat General Order. Review of your influent water quality data in comparison to the screening values, showed reasonable potential for the discharge to cause or contribute to an exceedance of iron and manganese water quality objectives in the tributary to Wolf Creek. However, the proposed treatment system addresses the water quality concern by reducing iron and manganese concentrations below water quality objectives; therefore, the Project qualifies for the Limited Threat General Order.

## PROJECT DESCRIPTION

The Discharger has constructed the North Star Water Treatment Facility (Facility) located at 12509 Allison Ranch Road, Grass Valley, California in order to treat groundwater discharged from the Drew Tunnel drainage, two North Star mine drainage features, and an adjacent spring which flows from abandoned underground mine workings with a total approximate flow of 1.04 MGD. The Facility is scheduled to be operational by 1 March 2017 and is expected to operate in perpetuity.

Extraction wells will collect the water from within the mine workings, preventing direct discharge to Wolf Creek, and pump it to the Facility through HDPE piping. Once the water reaches the Facility, it will enter a 368,000 cubic-foot HDPE-lined sedimentation pond from an aeration channel to allow iron, manganese, and other metal species to settle out. Then the water will be conveyed by gravity through HDPE piping to a 2.5 acre HDPE-lined, constructed wetland to continue to treat the water through oxidation, settlement, and filtration of precipitated solids by the wetland vegetation. From the wetland, the water will flow to a lined limestone bed which will provide aeration and pH adjustment to facilitate the removal of residual manganese prior to discharge. The treated water will then be discharged through an HDPE pipe to an unnamed tributary to Wolf Creek.

## EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the Limited Threat General Order. The following effluent limitations are applicable to this discharge and are contained in Section V. A and B of the Limited Threat General Order:

### A. Effluent Limitations – Applicable to All Limited Threat Discharges

#### 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

**2. Acute Whole Effluent Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all limited threat discharges shall be no less than:

- a. 70%, minimum for any one bioassay; and
- b. 90%, median for any three consecutive bioassays.

### B. Effluent Limitations – Limited Threat Discharge to Specific Waterbodies

4. The pH of all limited threat discharges within the Sacramento and San Joaquin River Basins (except Goose Creek) shall at all times be within the range of 6.5 and 8.5.

Wolf Creek is listed for fecal coliform on the Clean Water Act 303(d) List of impaired water bodies. A Total Maximum Daily Load (TMDL) has not yet been established for Wolf Creek and mine related discharges are not listed as a source of fecal coliform. Therefore, no additional

303(d) based effluent limitations or monitoring requirements are included in this NOA (R5-2016-0076-001).

**MONITORING AND REPORTING**

Monitoring and reporting requirements are contained in Attachment C of the Limited Threat General Order. The Discharger is required to comply with the following specific monitoring and reporting requirements for the effluent and receiving water in accordance with Attachment C of the Limited Threat General Order.

**Monitoring Locations** – The Discharger shall monitor the effluent and receiving water at the specified location as follows:

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to a tributary to Wolf Creek (39° 11' 38" N, 121° 3' 56" W).
--	RSW-001	Tributary to Wolf Creek, approximately 50 feet upstream from the point of discharge.
--	RSW-002	Tributary to Wolf Creek, approximately 50 feet downstream from the point of discharge.

**Effluent Monitoring** – When discharging to the tributary to Wolf Creek, the Discharger shall monitor the effluent at EFF-001 as follows:

**Table E-2. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Flow	MGD	Estimate	1/Day	2
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1/Month	2,3
pH	standard units	Grab	1/Month	2,3,4
Turbidity	NTU	Grab	1/Month	2,3
Temperature	°F	Grab	1/Month	2,3
Dissolved Oxygen	mg/L	Grab	1/Month	2,3
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Quarter	2,3,4
Arsenic, Total Recoverable	µg/L	Grab	1/Quarter	3
Iron, Total Recoverable	µg/L	Grab	1/Month	3
Manganese, Total Recoverable	µg/L	Grab	1/Month	3
Acute Toxicity	% survival	Grab	1/Year	9
Chronic Toxicity	--	Grab	1/Year	9

- <sup>2</sup> A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility
- <sup>3</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- <sup>4</sup> Monitoring for hardness shall be performed concurrently with effluent sampling for cadmium, chromium (III), copper, lead, nickel, silver, and/or zinc if effluent sampling for any of these pollutants is required.
- <sup>9</sup> See the MRP (Attachment C, section V) for toxicity monitoring requirements.

**Receiving Water Monitoring** - When discharging to surface water, the Discharger shall monitor, or provide monitoring data, for the receiving water at RSW-001 and RSW-002 as follows:

**Table E-3. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Monitoring Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/Month	<sup>2,3</sup>
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1/Month	<sup>2,3</sup>
Hardness	mg/L	Grab	1/Month	<sup>2,3</sup>
pH	standard units	Grab	1/Month	<sup>2,3</sup>
Temperature	°F	Grab	1/Month	<sup>2,3</sup>
Turbidity	NTU	Grab	1/Month	<sup>2,3</sup>

- <sup>2</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- <sup>3</sup> A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained by the Discharger.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

**Monitoring Report Submittals** - Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Monitoring reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the First Quarter 2017. This report shall be submitted on 1 May 2017. If monitoring samples were not obtained within 24 hours of initiation of the discharge, the Discharger must document the reasons in the corresponding monitoring report. If the discharge has not begun there is no need to monitor. However, a monitoring report must be submitted stating that there has been no discharge. Table E-4, below, summarizes the monitoring report due dates required under the Limited

Threat General Order. Quarterly monitoring reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge during the reporting quarter.

**Table E-4. Monitoring Periods and Reporting Schedule**

<b>Sampling Frequency</b>	<b>Monitoring Period Begins On...</b>	<b>Quarterly Report Due Date</b>
1/Day, 1/Week, 1/Month, 1/Quarter	First Day of Discharge	1 May (1 Jan – 31 Mar) 1 Aug (1 Apr – 30 Jun) 1 Nov (1 Jul – 30 Sep) 1 Feb, of following year (1 Oct – 31 Dec)

### **GENERAL INFORMATION AND REQUIREMENTS**

The Discharger must notify Central Valley Water Board staff within 24 hours of having knowledge of 1) the start of each new discharge, 2) noncompliance, and 3) when the discharge ceases. The Central Valley Water Board shall be notified immediately if any effluent limit violation is observed during implementation of the project.

Discharge of material other than what is described in the application is prohibited. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially terminated. You must notify this office in writing when the discharge regulated by the Limited Threat General Order is no longer necessary. If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Resources Control Board.

### **ENFORCEMENT**

Failure to comply with the Limited Threat General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. When discharges do not occur during a quarterly report monitoring period, the Discharger must still submit a quarterly monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

### **COMMUNICATION**

All monitoring report submittals, notification of the beginning and end of discharge, and questions regarding compliance and enforcement shall be directed to Genevieve Sparks of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Ms. Sparks can be reached at (916) 464-4821 or [Genevieve.Sparks@waterboards.ca.gov](mailto:Genevieve.Sparks@waterboards.ca.gov).

All documents, including monitoring reports, response to inspections, written notifications, and documents submitted to comply with this NOA and the Limited Threat General Order, should be submitted to the NPDES Compliance unit. We are transitioning to a paperless office, therefore, please convert all documents to a searchable Portable Document Format (pdf) and email them to [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov). Please also include the Discharger name, facility name, county, and CIWQS Place ID# 764526 in the body of the email. Documents that are 50 megabytes or larger should be transferred to a DVD, or flash drive and mailed to our

William S. Lyle  
Vice President  
North Star Water Treatment Facility

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office, attention "ECM Mailroom-NPDES". Please include the attached Monitoring Report Transmittal Form as the first page of each monitoring report.

Questions regarding the permitting aspects of this Limited Threat General Order, and written notification for termination of coverage under the Limited Threat General Order, shall be directed to Josh Palmer of the Central Valley Water Board's NPDES Permitting Unit. Mr. Palmer can be reached at (916) 464-4674 or [Joshua.Palmer@waterboards.ca.gov](mailto:Joshua.Palmer@waterboards.ca.gov).

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 California 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 pm, 30 days after the date of this NOA, 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 pm. 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.

***Original Signed By Adam Laputz for***

Pamela C. Creedon  
Executive Officer

Enclosures: General Order R5-2016-0076 (Discharger only)  
Monitoring Report Transmittal Form (Discharger only)

cc: David Smith, U.S. EPA, Region IX, San Francisco (email only)  
Phil Isorena, Division of Water Quality, State Water Board, Sacramento (email only)