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JUL 12 2004
PHELPS DODGE TYRONE, INC
ENVIRONMENTAL SERVICES

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

20040712-103

July 2, 2004

Richard N. Mohr, Unit General Manager
New Mexico Operations
Phelps Dodge Tyrone, Inc
P.O. Drawer 571
Tyrone, New Mexico 88065

RE: Re-issue of the Supplemental Discharge Permit for Closure, Phelps Dodge Tyrone, Inc., DP-1341

Dear Mr. Mohr:

The New Mexico Environment Department (NMED) encloses the re-issued Supplemental Discharge Permit for Closure for the Tyrone Mine. The enclosed revised Discharge Permit contains the modification to Condition No. 22 as stated in the Partial Final Decision and Order dated June 10, 2004. The revised date of the permit is June 28, 2004, however the effective date remains April 8, 2003.

If you have any questions or comments, please contact me at 505-827-2919 or Mary Ann Menetrey at 505-827-2944.

Sincerely,

Mary C. Menetrey for:

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:mam/clm

Enclosures: Revised Supplemental Discharge Permit for Closure, DP-1341

Cc (with enclosures): Geraldine Madrid-Chavez, WQCC Administrator
Zach Shandler, Office of the Attorney General
Paul Saavedra, Office of the State Engineer
Mary Ann Menetrey, Program Manager, MECS
Charlie deSaillan, OGC

SUPPLEMENTAL DISCHARGE PERMIT FOR CLOSURE
DP-1341
Phelps Dodge Tyrone, Inc., Tyrone Mine Facility
April 8, 2003 (Effective Date)
(Revised June 28, 2004)

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Supplemental Discharge Permit for Closure, DP-1341, (Supplemental Discharge Permit) to Phelps Dodge Tyrone, Inc. (Tyrone) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§ 74-6-1 through 74-6-17 (1993), and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC. The permit contains the closure requirements addressing Tyrone's discharges of water contaminants that may move directly or indirectly into ground water from the various Open Pits, Tailing Impoundments, Leach Ore Stockpiles, Waste Rock Piles, and associated facilities at its copper mine and mill, in Grant County, New Mexico (the Tyrone Mine Facility). NMED has previously issued nine individual discharge permits to Tyrone under the WQA for discharges from the Tyrone Mine Facility, DP-27, DP-166, DP-286, DP-363, DP-383, DP-396, DP-435, DP-455, and DP-670 (the Tyrone Operational Discharge Permits). An additional operational discharge permit, DP-896, is pending. The Operational Discharge Permits contain conditions regulating discharges that may move directly or indirectly into ground water during the operation of the Tyrone Mine Facility. This Supplemental Discharge Permit, DP-1341, supplements each of the Operational Discharge Permits and contains conditions necessary to prevent the exceedance of standards of Section 20.6.2.3103 NMAC or the presence of a toxic pollutant in ground water after the Cessation of Operation and conditions necessary to ensure abatement of ground water contamination.

The purpose of this Supplemental Discharge Permit and the requirements and conditions specified herein is to establish a closure plan to address the discharge of water contaminants from the Tyrone Mine Facility into ground and surface water following cessation of operation, so as to protect ground and surface water for actual and potential future use as domestic and agricultural water supply and other uses, and to abate pollution of ground water at the Tyrone Mine Facility.

The Tyrone Mine Facility encompasses approximately 9,000 acres and is located just off State Highway 90, approximately 10 miles southwest of Silver City in Grant County, New Mexico.

The Tyrone Mine Facility includes the following areas:

> ***Mangas Valley Tailings Area*:** The Mangas Valley Tailings Area contains the currently inactive Number 1, 1A, 1X, 2, 3X, and 3 Tailing Impoundments and associated facilities. The Tailing Impoundments cover approximately 2,300 acres, and contain approximately 304 million tons of tailings. The associated facilities of the Mangas Valley Tailings Area consist of the No. 1X Seepage Interception System, the tailing decant return water ponds, the mine's domestic wastewater ponds, the tailing launder, approximately 72 stormwater impoundments, and the tailing repositories due

to a tailings break at the No. 3 Tailings Impoundment in 1980. The Mangas Valley Tailings Area is located northwest of the Mining Area in Sections 3, 4, 5, 8, 9, 10, 11 and 14 of T19S, R15W; and Sections 17, 18, 19, 20, 21, 28, 29, 30, 33, and 34 of T18S, R15W; Sections 1, 2, 11, 12, 13, and 24 of T18S, R16W; and Sections 34 and 35 of T17S, R16W, Grant County, New Mexico.

Mining Area: The Mining Area contains the primary mining operation at the Tyrone Mine Facility. The area encompasses several Open Pits, Leach Ore Stockpiles, Waste Rock Piles, a solution extraction/electrowinning (SX/EW) plant, pregnant leach solution (PLS) collection impoundments, seepage interception systems, stormwater detention impoundments, a maintenance and lubrication area, process solution pumping stations, mill and concentrator facilities, a former precipitation plant area and acid unloading facility, and the Burro Mountain Tailings Impoundment. The Mining Area is located in Sections 19, 20, 29, and 30 of T19S, R14W; and Sections 10, 11, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, and 28 of T19S, R15W, Grant County, New Mexico (Figure 1).

The Open Pits at the Tyrone Mine Facility encompass approximately 2,000 acres. The open pit areas are the Main, West Main, Valencia, Gettysburg, Copper Mountain, South Rim, Savanna and San Salvador Hill pits. The Main Pit is located near the center of the Mining Area, covers approximately 796 acres, and is 1,400 feet deep. Currently, the Main Pit is being dewatered, with water being pumped either to the No.1X Tailings Impoundment or used as process makeup water. Tyrone has backfilled portions of the Main Pit and the other Open Pits with waste rock and leach ore, except for the South Rim Pit. Open Pits adjacent to the Main Pit are the West Main and Valencia pits. The Gettysburg Pit is located southeast of the Main Pit, covers approximately 270 acres, and is 740 feet deep. Tyrone has backfilled the side of the pit with leach ore material. The Copper Mountain Pit is located southwest of the Main Pit, covers approximately 165 acres, and is 450 feet deep. The South Rim Pit is located south of the Main Pit, covers approximately 60 acres, and is 250 feet deep. The Savanna Pit is located between the Main Pit and Gettysburg Pit. The San Salvador Hill Pit is located south of the Main Pit and has been partially backfilled with waste rock. Previously mined and now partially or completely backfilled pits include the Virginia Racket, West Racket, East Main, Gettysburg Entry, BA-O, and Upper Main. At least some of the pits were backfilled with leach ore material and have been leached with raffinate.

The various Leach Ore Stockpiles and Waste Rock Piles at the Tyrone Mine Facility encompass approximately 2,800 acres and contain approximately 1.7 billion tons of rock deposited near and adjacent to the Open Pits. The Leach Ore Stockpiles are the No. 1, 1A, 1B, 2, 2A, 3A, East Main, Gettysburg Out Pit Stockpile and the Gettysburg In Pit Stockpile. The Waste Rock Piles include the No. 1C, 1D, 3B, a portion of the 2B, Savanna and the Upper Main. A former Leach Ore Stockpile leached by a previous operator, the Copper Mountain Stockpile, was removed from the Deadman Canyon area and placed on the No. 2A Leach Ore Stockpile in 2000. Additionally, Tyrone has proposed a new Waste Rock Pile, the 9A Stockpile, to be included in the operation permit DP-435. The proposed 9A Stockpile would contain waste rock from mining

operations at the Little Rock Mine located adjacent to the Tyrone Mine Facility. The inclusion of the 9A Stockpile in DP-435 is pending approval by NMED.

The SX/EW plant removes copper and acidifies water to produce raffinate for leaching. The SX/EW plant area encompasses approximately 51 acres and includes the following associated structures: the leach crew office; shop; electrical substation; warehouse; PLS feed pond; acid tanks; reagent and organic storage area; pacesetter filters; mixer/settler tanks; tank house; water tank; organic tanks; Jamison cells; the former raffinate pond; Gonzales cells; and the raffinate storage tanks.

The PLS collection impoundments consist of synthetically lined, clay lined, unlined impoundments and stainless steel tanks located primarily at the toes of the Leach Ore Stockpiles.

Seepage interception systems are located near the No. 3 Stockpile, along Deadman Canyon, in and along Oak Grove Creek, and in Brick Kiln Gulch. The function of these systems is to intercept, collect and pump ground water contaminated by the mining operation.

The stormwater retention ponds consist of lined and unlined impoundments of varying size to collect surface stormwater at the Tyrone Mine Facility due to precipitation events. Water collected in the ponds typically has a pH range of 4 to 4.5. The stormwater retention ponds are located throughout the Mining Area.

The Maintenance and Lubrication area encompasses approximately 66 acres and includes the following associated structures: General Offices; Ambulance Building; Guard House; Fire Truck Building; Safety Building; Training Building; Jerome Building; Mine Office; Warehouse; Electric Shop; Truck Shop; Pipe Shop; Carpenter Shop; Lumber Shop; Truck Wash Pad; Shovel Repair Building; Environmental Lab; an Electrical Power Substation; Diesel Storage Tanks; Electrical Building and Chlorine Shack; Diesel Tank Farm; Power House Building; Warehouse and Core Storage; Analytical Lab; Prill Tanks; Dispatch Building; Southwest Energy Building; Powder Magazines; and Lubrication Shop.

The Mining Area contains several pumping stations. The purposes of the pumping stations are to circulate PLS to the SX/EW plant and raffinate from the SX/EW plant to various Leach Ore Stockpiles. Examples of pumping stations include the 2A West Collection Area, Main Pit Pump Station, and the Pumping Station at the raffinate tanks located near the SX/EW plant.

The Mill and Concentrator Facilities are located north of the No. 1D Waste Rock Pile and east of the No. 3A Leach Ore Stockpile and consist of the following structures: Primary Crusher; Ore Storage Area; Secondary Crusher; Fuel Station; Tire Shop; additional Crushers; Flotation Units; Filter Plant; and Tailing Thickeners. The Mill and Concentrator facilities have been inactive since 1992 when milling and tailings

deposition was discontinued. Currently, two of the Tailing Thickener Units are being used as a landfarm area for remediation of soils contaminated with hydrocarbons.

The Acid Unloading Facility Area and Former Precipitation Plant are located northeast of the No. 1B Leach Ore Stockpile less than 0.5 mile from State Highway 90. In the past, the area was used to produce copper precipitate; presently the area is used to unload train cars of sulfuric acid used in the leaching process and collect stormwater runoff.

The Burro Mountain Tailing Impoundment covers approximately 45 acres and are located southeast of the No. 1 Leach Ore Stockpile. The Burro Mountain Tailing Impoundment was active from 1916 to 1921, creating the first Tailing Impoundment at the Tyrone Mine Facility.

Quantity, Quality and Flow Characteristics of the Discharge: Some of the leachate and stormwater runoff from the Mangas Valley Tailings Area and the Mining Area (principally from the Leach Ore Stockpiles, Waste Rock Piles, and Tailing Impoundments) is discharged so that it moves directly or indirectly into ground water. Some of the leachate and stormwater runoff from the Mangas Valley Tailings Area and the Mining Area is or may be discharged so that it moves directly or indirectly into ground water. Some of the leachate exceeds health-based numerical water quality standards under the WQCC Regulations at 20.6.2.3103.A. NMAC for the constituents cadmium, chromium, lead and fluoride; at least some of the leachate exceeds other domestic water supply standards under 20.6.2.3103.B. NMAC for the constituents copper, iron, manganese, sulfate, total dissolved solids and zinc, and is below the acceptable pH range between 6 and 9 standard units; and some of the leachate exceeds water standards for irrigation use under 20.6.2.3103.C. NMAC for the constituents aluminum, cobalt, and nickel. Additionally, at least some of the leachate exceeds the maximum contaminant level for beryllium, a primary drinking water standard set by the U.S. Environmental Protection Agency under the Federal Safe Drinking Water Act.

The Leach Ore Stockpiles, Waste Rock Piles, and the Tailing Impoundments discharge leachate and stormwater in a quantity sufficient to cause ground water to exceed standards for the contaminants listed above. Seepage interception systems have been installed down gradient from some of the Leach Ore Stockpiles and Tailing Impoundments to collect leachate and impacted ground water. Then amount of leachate collected in seepage interception systems below the Leach Ore Stockpiles and the Tailing Impoundments is estimated based on current flow rates under active leaching conditions. A lined collection impoundment located in Deadman Canyon collects approximately 10 gallons per minute (gpm) of intermittent seeps and ground water from Seeps 2, 3, 4, 5, 5E, 6, 8 and 9 along the western (unleached) side of the of the No. 2A Leach Ore Stockpile, the No. 2 Leach Ore Stockpile, and the former Copper Mountain Stockpile. Approximately 3 gpm of leachate and ground water is pumped from the Oak Grove Perched Seepage Interception System east of the No. 1C Waste Rock Pile and 1A Leach Ore Stockpile; approximately 5 gpm of acidic leachate is pumped from a lined collection impoundment at the toe of the No. 1C Stockpile; approximately 120 to 200 gpm of leachate and ground water is pumped from the No. 3 Stockpile Seepage Interception System; and approximately 3 gpm of leachate and ground water is collected and pumped from the Brick Kiln

Perched Seepage Interception System east of the No. 1B Leach Ore Stockpile. The No. 1X Seepage Interception System, located down gradient of the No.1X Tailings Impoundment, was installed to collect seepage from the No. 1X Tailings Impoundment at a rate of approximately 200 gpm; however, it is typically not necessary to pump this system because ground water does not exceed standards. This system currently pumps at a rate of approximately 30 gpm. The Main Open Pit collects approximately 2,000 gpm of direct precipitation, leachate and ground water discharge from the adjacent Leach Ore Stockpiles and Waste Rock Piles. The amount of direct precipitation, leachate and ground water collected at the Gettysburg and Copper Mountain Open Pits is estimated at over 500 gpm.

Characteristics of Ground Water: In the Mangas Valley Tailings Area regional ground water occurs within the Tertiary Gila Conglomerate and along the major axis of the Mangas Valley in Quaternary alluvium. The depth to ground water ranges from approximately 40 feet to nearly 90 feet below ground surface.

In the Mining Area, the regional ground water occurs primarily within the igneous rocks (primarily the Tertiary quartz monzonite); however, at some locations regional ground water also occurs within the Gila Conglomerate. The depth to ground water ranges from approximately one foot to 600 feet below the natural pre-mining ground surface. The average depth to ground water at the Mining Area is approximately 300 feet below the natural pre-mining ground surface. At the Tyrone Mine Facility the ground water total dissolved solids (TDS) concentration in the regional aquifer ranges from approximately 210 to 1,500 milligrams per liter. Ground water background concentrations may exceed water quality standards under the WQCC Regulations for some constituents in some areas of the mine, although NMED has not yet made any background determinations.

Ground water also exists in shallow aquifers located at the base of the alluvium-filled channels that have been eroded into the Gila Conglomerate. These channels generally follow ephemeral stream drainages at the Tyrone Mine Facility. Depth to ground water in the shallow aquifer ranges from approximately 20 to 40 feet below ground surface. At the Tyrone Mine Facility, the TDS concentration in the shallow aquifer is approximately 500 to 600 milligrams per liter.

Existing Discharge Permits: NMED has approved nine Operational Discharge Permits covering discharges from Tyrone's current operations; a tenth is pending. Tyrone Operational Discharge Permits approved for the Tyrone Mine Facility include the Mangas Valley Tailings (DP-27); the No. 2 Leach System and SX/EW Plant (DP-166); the No. 3 Leach System (DP-286); the No. 1A Leach System (DP-363); the No. 1B Leach System (DP-383); the No. 1C Stockpile (DP-396); the No. 2A Leach System (DP-435); the Gettysburg Leach System (DP-455); and the East Main Leach System (DP-670). The pending Operational Discharge Permit, DP-896, for the East Mine Area will incorporate the acid unloading facility area, the No. 1 Leach Ore Stockpile, and the historic Burro Mountain Tailings Impoundment. These facilities contain other structures not specifically mentioned such as pipelines, water impoundments, and buildings and roads, which are covered by these discharge permits.

Facilities or portions of facilities, which are currently pending incorporation into the Tyrone Operational Discharge Permits DP-27 (the mill and concentrator facility) and DP-435 (the 9A

Waste Rock Pile) or proposed for inclusion in pending Operational Discharge Permit, DP-896, are incorporated into this Supplemental Discharge Permit. Other new facilities or portions of facilities which are not yet incorporated into Tyrone Operational Discharge Permits for operations may be incorporated into this Supplemental Discharge Permit in the form of amendments or modifications.

Activities that Produce the Discharge: Turquoise was mined near the old town of Tyrone prior to the arrival of the Spaniards. While it is likely that the site was mined by the Spaniards prior to 1870, it appears that significant mining in the area did not begin until the late 1870's when turquoise was rediscovered near Tyrone. Through the turn of the century, a number of companies mined turquoise, other copper minerals, and fluorspar in the Tyrone Mine Area. Prior to 1910, a number of extensive underground copper ore bodies were developed in the area such as, on the St. Louis, Burro Chief, Copper Mountain and Sampson claims to name a few. In 1909, Phelps Dodge obtained an interest in the Burro Mountain Copper Company, which owned the above claims, with an option to purchase all other claims. By 1916, Phelps Dodge owned virtually all the mines in the district. Upon consolidation of the claims, Phelps Dodge developed the mines for a large-scale underground operation. Mining was generally confined to areas of high-grade chalcocite mineralization, averaging 2 to 3 percent copper or better. The underground mines shut down in 1921, due partly to a drop in copper prices and a lack of high-grade ore. Operations occurred intermittently between 1921 and 1929 and between 1941 and 1950. Deposition of the Burro Mountain tailings began in the 1920's and continued through the 1950's. From 1950 to 1959, Phelps Dodge conducted an intensive drilling program to delineate the large low-grade orebody that is now the Tyrone Mine. In 1967, Phelps Dodge began waste stripping operations for the open pit areas and installed a concentrator and mine support facilities. The concentrator and associated tailings deposition operations began in 1969 and continued, except for occasional brief suspensions, until 1992. Tailings from the concentrator were deposited in unlined impoundments in Mangas Valley. Limited stockpile leaching operations began in 1971, coincident with the opening of the precipitation plant. In 1984, the SX/EW plant commenced operation and additional stockpile leaching operations were started. Currently all copper recovered at the Tyrone Mine Facility is by stockpile leaching and SX/EW processes.

The Tyrone Mine Facility's Leach Ore Stockpiles, Waste Rock Piles, Open Pits, and Tailing Impoundments all contain mineral sulfides which, when oxidized, generate acidic solutions. This acidic solution reacts with in situ minerals, leaching some of contained metals, which produces acid rock drainage and associated metals and sulfates contaminants. The Leach Ore Stockpiles also contain acidic solutions and residual acidity, including metals, from the leaching process that forms acidic leachate. This leachate from acid rock drainage and the leaching process may move directly or indirectly into surface and ground water.

As part of the current mining operation, rock in the Open Pits is fragmented using traditional drilling and blasting techniques, loaded in haul trucks and delivered to the following locations:

> Overburden and waste rock are placed in Waste Rock Piles in several locations around the Open Pits, including the No. 1C, 1D, 2B, 3B, Savanna, and the Main Pit.

Leach grade ore is stockpiled on the Leach Ore Stockpiles in several locations around the Open Pits, including the No. 1, 1A, 1B, 2, 2A, 3A, East Main, Gettysburg Out Pit Stockpile and the Gettysburg In Pit Stockpile.

Tyrone is permitted to discharge up to 98.3 million gallons per day (gpd) of acidic leach solution (raffinate) to the top and side slopes of the Leach Ore Stockpiles. The resultant leachate is collected as pregnant leach solution (PLS) at specific permitted lined and unlined collection points at the stockpile toes as well as other permitted locations in the Mine Area. Most portions of the Leach Ore Stockpiles are unlined and at least some of the leachate from the stockpiles and collection points reports directly or indirectly to ground water. The PLS is pumped to the SX/EW plant for copper removal. The SX/EW plant is permitted to discharge up to 43.2 million gpd of raffinate. Raffinate is stored in two above ground stainless steel tanks, with a capacity of 2.4 million gallons, where its pH may be adjusted with sulfuric acid before discharging to the Leach Ore Stockpiles. The entire volume of PLS contained within the Leach Ore Stockpiles, pipelines, and the collection system is estimated to be between one and two billion gallons. Along with the permitted discharge to the Leach Ore Stockpiles, Tyrone is also permitted to discharge 30,000 gpd of acid mine leachate water from the No. 1C Waste Rock Pile that is collected at the toe of this Waste Rock Pile.

Additionally, Tyrone is permitted to discharge up to 1.728 million gpd of excess mine water from the Main Pit and 28,800 gpd of acidic seepage from the Copper Leach Stockpile located at the Little Rock Mine to the No. 1X Tailings Impoundment. Tyrone is also permitted to discharge up to 8.64 million gpd of oxidation pond effluent to the No. 2 Tailings Impoundment and 100 cubic yards per month of sewage sludge from the town of Silver City to the No. 3 Tailings Impoundment. Tyrone formerly discharged up to 50,000 tons per day of copper flotation tailings; however, no tailings have been discharged to the Tailing Impoundments since 1992. The Tailing Impoundments are unlined and some water moves from the Tailing Impoundments directly or indirectly into ground water.

General: This Supplemental Discharge Permit incorporates a closure plan that includes specific requirements for the following closure activities: closure of all Tailing Impoundments; closure of all Open Pits; closure of all Leach Ore Stockpiles and Waste Rock Piles; closure of associated facilities such as pipelines and Surface Impoundments; post-closure monitoring and maintenance; test plots and other additional studies; a contingency plan; abatement of ground water and surface water contamination; and a financial assurance plan.

This Supplemental Discharge Permit incorporates the Tyrone Closure/Closeout Plan (Tyrone CCP), herein as enforceable under the terms of this Supplemental Discharge Permit. In the event that there is a conflict or difference between the Supplemental Discharge Permit and the Tyrone CCP, the terms and conditions of this Supplemental Discharge Permit shall control.

Approval of this Supplemental Discharge Permit does not relieve PDTI of its responsibility to comply with all conditions and requirements of the Tyrone Operational Discharge Permits, WQA, WQCC Regulations, and any other applicable federal, state and local laws and regulations. If any inconsistency exists between this Supplemental Discharge Permit and any of the Tyrone Operational Discharge Permits, this Supplemental Discharge Permit shall supersede.

II. DEFINITIONS

Whenever any terms defined in the WQA or the WQCC Regulations, 20.6.2 NMAC, are used in this Supplemental Discharge Permit, including any documents incorporated herein by reference, those definitions shall apply. In addition, whenever the terms listed below are used in this Supplemental Discharge Permit, including any documents incorporated herein by reference, the following definitions shall apply:

"Certification of Closure" means a written determination by NMED that all closure conditions in this Supplemental Discharge Permit, including all amendments and modifications, have been complied with for the portion of the Tyrone Mine Facility specified in the certification. This certification signifies the end of the closure period and the start of the post-closure period.

"Cessation of Operation" means any cessation of operation of the Tyrone Mine Facility that is not part of normal mining operations or is due to bankruptcy or abandonment and includes without limitation shut down of all facility operations. A Cessation of Operation may occur for a portion of the Tyrone Mine Facility when a major discrete portion of the operation is shut down when there is no intent to resume operation. Examples of shut down of major discrete portions of facility operations are: cessation of permitted discharges to an individual Tailing Impoundment when there is no intent to resume operation, cessation of mining in an individual Open Pit when there is no intent to resume mining in the future, cessation of waste rock deposition to an individual Waste Rock Pile when there is no intent to resume operation, cessation of leaching operations at an individual Leach Ore Stockpile when there is no intent to resume operation, cessation of ore processing at the mill and concentrator when there is no intent to resume operation, or cessation of copper extraction at the SX/EW when there is no intent to resume operation.

"Closed Area" means any individual portion of the Tyrone Mine Facility with an NMED approved Certification of Closure.

"Discharge" means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping into water or in a location and manner where there is a reasonable probability that the discharged substance will directly or indirectly reach surface or ground water.

"Effective Date" means the date a Final Order approving this Supplemental Discharge Permit is signed by the Secretary of the NMED or his designee and this Supplemental Discharge Permit is issued.

"Final Order" means the Final Order from the Secretary of NMED or his delegatee approving this discharge permit.

"Highway" means any public road operated and maintained by the city, county, state or federal government.

"Interbench Slope" means the angle of the sloped ground surface measured between terrace benches or between a terrace bench and any engineered conveyance system (i.e., to divert runoff) as illustrated in Figure 2.

"Leach Ore Stockpile" means the No. 1, 1A, 1B, 2, 2A, 3A, East Main, Gettysburg Out-Pit and the Gettysburg In-Pit Stockpiles at the Tyrone Mine Facility and any other rock piles associated with mining disturbances that have been leached, are currently being leached or have been placed in a pile for the purpose of being leached.

"Mangas Valley Tailings Area" means the tailing repository areas from the 1980 Tailings Spill, the currently inactive No. 1, 1A, 1X, 2, 3X, and 3 Tailing Impoundments and associated facilities which are owned and operated by Tyrone located near the town of Silver City in Grant County, New Mexico.

"Mining Area" means all of the Tyrone Mine Facility southeast of the Mangas Valley Tailings Area which includes but is not limited to, the Open Pits; the Leach Ore Stockpiles; the Waste Rock Piles; the Burro Mountain Tailings Impoundment and associated structures owned and operated by Tyrone located near the town of Silver City in Grant County, New Mexico which are part of the Tyrone Mine Facility.

"MMD" means the Mining and Minerals Division of the New Mexico Energy, Minerals & Natural Resources Department.

"NMMA" means the New Mexico Mining Act, NMSA 1978, 69-36-1 *et seq* (1993, as amended through 1999).

"Open Pits" means the areas from which ore bearing and waste rocks were exposed and removed by surface mining methods. Open pit areas include the Main, West Main, Valencia, Gettysburg, Copper Mountain, South Rim, and Savanna. Previously mined and now partially or completely backfilled pits including the San Salvador Hill, Virginia Racket, West Racket, East Main, Gettysburg Entry, BA-O, and Upper Main. All pits except the South Rim pit have been backfilled to some extent.

"Slope angle" means the horizontal run divided by the vertical rise, measured along the steepest gradient of the interbench slope's physical surface (i.e., a 3:1 slope refers to 3 horizontal units to 1 vertical unit).

"Supplemental Discharge Permit" means this Supplemental Discharge Permit for Closure, DP-1341, for the Tyrone Mine Facility.

"Surface Impoundment " means any man-made synthetically-lined, clay-lined or unlined open surface structure designed to contain PLS, raffinate, leachate, seepage water, stormwater or any other mining process fluid or waste water.

"Surface Water(s) of the State" shall have the meaning given in 20.6.4 NMAC.

"Tailing Impoundments" means the tailing impoundments owned or operated by Tyrone located near the town of Silver City in Grant County, New Mexico that are part of the Tyrone Mine Facility. Tailing Impoundments include the No. 1, 1A, 1X, 2, 3X, 3 and Burro Mountain Tailing Impoundments.

"Tyrone" means Phelps Dodge Tyrone, Inc. a corporation organized under the laws of the State of New York and doing business in New Mexico.

"Tyrone CCP" means the Tyrone Closure/Closeout Plan submitted to NMED March 2001, revised in May 2001 and revised again in July 2001.

"Tyrone Operational Discharge Permits" means the discharge permits (DP-27, DP-166, DP-286, DP-363, DP-383, DP-396, DP-435, DP-455, and DP-670, and DP-896 upon issuance) issued by NMED under the WQA and in effect for the Tyrone Mine Facility.

"Tyrone Mine Facility" means the Mangas Valley Tailings Area and Mining Area which are owned and operated by Phelps Dodge Tyrone, Inc. located near the town of Silver City in Grant County, New Mexico and all surrounding property over which Tyrone has an ownership interest or a leasehold interest.

"Tyrone Tailing Facility" means all facilities associated with transport and management of mill tailings from the Tyrone Mine Facility, including the tailing pipelines and associated sumps, and Tailing Impoundments.

"Waste Rock Pile" means all non-leach or non-economic material from open pit mining, exclusive of material sent to the mill. The Waste Rock Piles include the No. 1C, 1D, 3B, Savanna, the Upper Main, a portion of the 2B, and the proposed 9A.

"Water Storage and Release Cover" means a topdressing that has sufficient water holding capacity to optimize storage of precipitation and evapotranspiration of moisture back to the atmosphere.

"WQA" means the New Mexico Water Quality Act, NMSA 1978, §§ 74-6-1 through 74-6-17, and any amendments thereto.

"WQCC" means the New Mexico Water Quality Control Commission.

"WQCC Regulations" means Title 20, Chapter 6, Parts 1 and 2, NMAC and any amendments thereto.

III. CONDITIONS

Tyrone shall comply with Conditions 1 through 117 of this Supplemental Discharge Permit in order to comply with the WQA and the WQCC Regulations. The terms and conditions of this Supplemental Discharge Permit are enforceable by NMED. Based on results of the additional

studies, or other information, NMED may require, or Tyrone may propose, additional or modified closure measures.

Updated Closure Plan

1. At least 180 days prior to the expiration date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval an updated closure plan including an implementation schedule that is based on available information including additional information available from any of the studies described in Conditions 75 through 89. If additional information gathered pursuant to any of the studies required by Conditions 75 though 89 indicates that a modification or amendment to this Supplemental Discharge Permit is necessary, then the updated closure plan shall include a request for modification or amendment. The procedures of Sections 20.6.2.3000 through 3114 NMAC shall apply to such request. This condition does not supersede Section 20.6.2.3109 NMAC.

Closure Plan Term

2. The closure plan for the Tyrone Mine Facility shall remain in effect under this Supplemental Discharge Permit and approved renewals until closure and post-closure is complete and the Secretary of the NMED has released Tyrone from further closure obligations. The closure plan shall incorporate any approved updates as amendments or modifications to this Supplemental Discharge Permit. Tyrone shall begin implementation of all or the pertinent part of the closure plan upon Cessation of Operation and as described in Conditions 64 through 66. The components of the closure plan are described below.

Surface Regrading and Stormwater Management

Leach Ore Stockpiles and Waste Rock Piles

3. Tyrone shall close the Waste Rock Piles and Leach Ore Stockpiles in a manner that results in positive drainage and eliminates, to the maximum extent practicable, ponding on the final cover top surfaces of Waste Rock Piles and Leach Ore Stockpiles. The top surfaces shall be constructed to a final grade of 0.5% to 5% to direct stormwater to slope drainage channels. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

4. Tyrone shall regrade all Waste Rock Pile and Leach Ore Stockpile slopes to interbench slopes of no steeper than 3:1 (horizontal: vertical). In the event that such regrading of an individual slope would result in the intersection of a designated Surface Water of the State or a Highway, Tyrone may regrade such slope steeper than 3:1, as necessary to avoid the intersection, but in no event steeper than 2.5:1 Slopes of Waste Rock Piles and Leach Ore Stockpiles, that are located within the pit wall boundary of the Main Pit and Gettysburg Pit are not required to be regraded pending the completion of additional studies described in Conditions 78 through 83 and Condition 89. Regrading and any

relocation shall include run-on control and positive drainage of all Waste Rock Piles and Leach Ore Stockpiles..

5. For the No. 1C Waste Rock Pile, Tyrone shall remove, to an NMED approved location, the waste rock material from Oak Grove Draw and meet slope requirements described in Conditions 3 and 4. Tyrone may propose alternative options for eliminating contact between surface water flows in the Oak Grove Draw and the waste rock material in accordance with Operational Discharge Permit DP-396.

6. Terrace benching on the Leach Ore Stockpile and Waste Rock Pile slopes shall be constructed at slope lengths of no greater than 300 feet. Terrace benches shall be a maximum of 50 feet wide, inclined 1% to 5% towards the slope face and have a longitudinal slope of no greater than 5%. Terrace benches shall include slope channels at the intersection of benches and slope faces to convey stormwater collected on the Leach Ore Stockpile and Waste Rock Pile slopes to detention ponds or outlet channels located at the slope toes or beyond. Surface water diversion ditches shall be constructed between terrace benches to convey stormwater off the slope surfaces to the slope channels. The maximum continuous slope length of covered slopes between benching, slope crest, slope toe, surface water diversion ditches, divots, or any other slope break feature shall not exceed 200 feet. All surface water diversion ditches and slope channels shall be lined with riprap or other suitable construction materials approved by NMED. Alternate regrading and stormwater management provisions may be approved by NMED upon demonstration by Tyrone that the proposed alternative is designed to prevent an erosion rate of greater than 4 tons/acre/year based on generally accepted erosion modeling and the results of the test plot study described in Condition 76. At least 180 days before implementation of construction activities, Tyrone shall submit to NMED for approval a best management practices (BMP) plan. The BMP plan shall detail the best management practices that will be employed to address erosion, slope length and water management. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

7. At least 180 days prior to placement of a final cover on regraded slopes and surfaces of each Leach Ore Stockpile and Waste Rock Pile, Tyrone shall submit to NMED for approval engineering design drawings, a pre-covering survey report and topographic maps of uncovered Leach Ore Stockpiles and Waste Rock Piles. The contour intervals of the topographic maps shall be no greater than two feet for the top surfaces and shall document positive drainage on the Leach Ore Stockpile and Waste Rock Pile surfaces. The contour intervals of the topographic maps shall be no greater than ten feet for the slopes.

8. At least 180 days prior to construction, Tyrone shall submit to NMED for approval detailed engineering designs for stormwater management structures and associated conveyance systems. Design specifications for stormwater management structures shall be included with the Construction Design and Quality Assurance (CDQA) plan required by Condition 18. As-built drawings for stormwater management structures shall be

included with the Construction Quality Assurance (CQA) report required by Condition 18.

Tailing Impoundments

9. Tyrone shall close the Tailing Impoundments in a manner that results in positive drainage and eliminates ponding on the Tailing Impoundment surfaces and the final cover surfaces, and ensures that the requirements of the WQA and the WQCC Regulations are met. The top surfaces shall be constructed to a final grade of 0.5% to 5% to provide positive drainage and direct water to the designated spillways and drainage channels as proposed in the Tyrone CCP. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

10. Tyrone shall, prior to installing a cover, ensure that all Tailing Impoundment slopes have interbench slopes of no steeper than 3:1 unless otherwise approved by NMED. Tyrone shall construct vee ditches with riprap and down pipes to divert water off the slopes every 300 to 600 horizontal feet. All surface water diversion ditches and slope channels shall be lined with riprap or other suitable construction materials approved by NMED. Alternate grading and stormwater management provisions may be approved by NMED upon demonstration by Tyrone that the proposed alternative is designed to prevent an erosion rate of greater than 4 tons/acre/year based on generally accepted erosion modeling.

11. Tyrone shall construct stilling basins at the toes of the Tailing Impoundments to dissipate the energy of water from the spillway drop and connecting channels that deliver the vee ditch waters. At least 180 days before implementation of construction activities, Tyrone shall submit to NMED for approval a best management practices (BMP) plan. The BMP plan shall detail the best management practices that will be employed to address erosion, slope length and water management. As-built drawings for stormwater management shall be included with the CQA report required by Condition 18. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

12. At least 180 days prior to the placement of a final cover on any Tailing Impoundment, Tyrone shall submit to NMED for approval design specifications; cover material specifications; a pre-covering survey report; and final topographic maps of the uncovered surfaces with the CDQA plan required by Condition 18 and an evaluation of the Tailing Impoundment settling. The contour intervals of the topographic maps shall be no greater than two feet for the top surfaces and shall document positive drainage on the tailing surfaces. The contour intervals of the topographic maps shall be no greater than ten feet for the slopes. The tailing settling evaluation shall describe settling characteristics of the tailing and monitoring methods utilized.

13. At least 180 days prior to construction, Tyrone shall submit to NMED for approval detailed engineering designs for stormwater management structures for the Tailing Impoundments as part of the CDQA plan required by Condition 18. The stormwater management plan shall be as outlined by Tyrone in the Tailing Pond Erosion Drainage

Control section of the proposed Tyrone CCP unless amended by Tyrone and approved by NMED, and include discharge of surface runoff to conveyance systems on the Tailing Impoundment surfaces. All stormwater management structures shall be designed and constructed to remove incident precipitation without causing damage to or failure of the cover. Damage to or failure of the cover shall be determined according to the criteria in the contingency plan prepared under Condition 70.

General

14. Tyrone shall manage stormwater runoff in a manner that prevents, to the maximum extent practicable, runoff from areas outside the Open Pits from entering the Open Pits remaining at closure. Within 180 days before implementation of construction activities at any portion of the Tyrone Mine Facility, Tyrone shall submit to NMED for approval a Stormwater Management Plan for closure of the Mine Area. The Stormwater Management Plan shall be submitted as part of the BMP plan required by Conditions 6 and 11. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

15. Tyrone shall manage storm generated runoff, intercepted ground water and diversion ditch water from the Leach Ore Stockpiles, Waste Rock Piles and Tailing Impoundments through the approved water treatment system unless the water meets all applicable surface water and ground water standards in accordance with Section 20.6.2 NMAC.

Cover Placement Plan

16. Tyrone shall cover the top surfaces and slopes of all Leach Ore Stockpiles and Waste Rock Piles as described in Condition 4, Tailing Impoundments and any other areas where cover is required for final closure. The covers shall consist of non-acid generating materials capable of supporting plant growth. The covers shall be designed as water store and release covers as outlined in Condition 17 in order to minimize infiltration of precipitation into underlying stockpile, waste rock and tailing materials and subsequent discharge of leachate into ground water and surface water. The covers shall be designed to achieve physical stabilization and revegetation of Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments and any other area including Surface Impoundments where cover is required for final closure. Amendments such as pH neutralizing agents shall be applied, as necessary, in consultation with MMD, to the Tailing Impoundments, Leach Ore Stockpiles and Waste Rock Piles and/or cover materials to mitigate upward migration of contaminants into the cover and otherwise promote plant growth. Final cover placement shall begin as soon as practicable after surface shaping activities are complete for each of the Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments and any other area including Surface Impoundments where cover is required for final closure regardless of the operational status of any other portion of the Tyrone Mine Facility. Final cover placement shall be completed as soon as practicable but no later than one year after completion of surface shaping activities at any Leach Ore Stockpile, Waste Rock Pile, Tailing Impoundment or any other area including Surface Impoundments where cover is required for final closure. The one-year deadline for cover

placement may be extended by NMED for good cause shown. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

17. Tyrone shall cover all Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments and any other area including Surface Impoundments where cover is required for final closure, with a water store and release cover system approved by NMED, consistent with the CDQA plan required by Condition 18. The cover shall consist of a minimum of 36 inches of alluvium, such as the Gila Conglomerate formation, or other non-acid generating material approved by NMED. If further studies and test plots demonstrate that an alternative cover system will achieve a level of ground water protection equivalent to or better than that required by this Supplemental Discharge Permit, Tyrone may propose for NMED approval an alternative cover system. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

18. At least 180 days prior to placement of any final cover material over each of the Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments or any other area including Surface Impoundments where cover is required for final closure, Tyrone shall submit a Construction Design Quality Assurance (CDQA) plan to NMED for approval. The CDQA plan shall include at a minimum, construction design drawings, construction and quality assurance methods, amendment rates, borrow material withdrawal areas, and a schedule for the completion of activities. Within 180 days after the project completion, Tyrone shall submit to NMED a final Construction Quality Assurance (CQA) report. The final CQA report shall include, at a minimum, as-built drawings, a final topographic map with no greater than two-foot contour intervals for the top surfaces and no greater than ten-foot contour intervals for the slopes, a summary of work conducted, soil testing results, laboratory analytical reports, identification of the location and extent of borrow areas, and construction photographs.

Revegetation Plan

19. Tyrone shall revegetate the Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments, Surface Impoundments and other areas where cover placement is required as part of site closure to: 1) optimize the ability of the cover to reduce infiltration into underlying materials, 2) promote evapotranspiration from the cover system, and 3) provide cover stability and protection from wind and water erosion. Revegetation activities shall use methods approved by MMD to meet New Mexico Mining Act (NMMA) requirements, and shall be consistent with the findings of studies conducted pursuant to Conditions 76 and 77. Tyrone shall submit to NMED any work plans, reports, or other documents required by MMD associated with site revegetation. Revegetation activities shall be completed as soon as practicable following the final cover placement at each of the Leach Ore Stockpiles, Waste Rock Piles, Tailing Impoundments and Surface Impoundments, but in conjunction with the growing season to provide the best opportunity for successful revegetation.

20. Tyrone shall fence covered areas to exclude, to the maximum extent practicable,

livestock and unauthorized human activity if necessary to ensure that revegetation requirements are met as described in Condition 19.

Closure of Open Pits and Surface Impoundments

21. Tyrone shall close the Open Pits in accordance with the results in the study described in Condition 89.

22. Tyrone shall eliminate all surface water, to the maximum extent practicable, from all Open Pits that are not backfilled above the ground water table. At least 180 days prior to the initiation of pumping and water treatment, Tyrone shall provide to NMED for approval a standard operating plan for the open pit pumping and water treatment system, including a contingency plan for dealing with unplanned system outages. In the event of a disruption of open pit pumping and water treatment not described in the standard operating plan, Tyrone shall notify NMED within 24 hours. Tyrone shall ensure that water remaining in any Open Pit, that is not part of an active waste collection and treatment system, meets applicable surface water quality standards pursuant to the State of New Mexico Standards for Interstate and Intrastate Streams (20.6.4 NMAC). The amount of water remaining in any open pit shall be consistent with the approved standard operating plan and shall be no larger than the minimum amount of water necessary to pump the water to the approved water treatment plant.

23. Tyrone shall close all Surface Impoundments identified in the study described in Condition 87. All Surface Impoundments shall be closed in a manner that ensures that the requirements of the WQA and WQCC Regulations and that the conditions of this Supplemental Discharge Permit are met. Closure activities shall include draining the Surface Impoundments, characterization and abatement of sediments that may impact ground water quality and characterization of ground water to determine if abatement is necessary. Unless needed for water management during closure and post closure, or unless otherwise approved by NMED, Surface Impoundments shall be closed in a manner that creates positive drainage away from the impoundments, which may include backfilling or regrading. Where the characterization results show materials remaining within or beneath any Surface Impoundment to be a source or potential source of ground water contamination, the Surface Impoundment shall be covered and revegetated as specified in Conditions 16 through 20. Final cover placement shall be completed as soon as practicable but no later than one year after completion of construction activities necessary to create positive drainage. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

24. Following Cessation of Operations, Tyrone shall install fencing or other measures to restrict, to the maximum extent practicable, entry by wildlife, livestock and unauthorized humans to the Open Pits and Surface Impoundments that contain waters that may be harmful or toxic. Access restriction measures contained in this condition may be modified during final engineering design with NMED approval.

Closure of Buildings and Cleanup Plan

25. Any structure necessary for post-closure treatment and disposal of ground water and/or surface water shall remain in place and be maintained until NMED concurs that use of the structure is no longer required. Tyrone shall abate contaminated soils that are potential source areas for ground water and surface water contamination in accordance with Sections 20.6.2.1203, 20.6.2.3109.E.1 and 20.6.2.4103 NMAC, as approved by NMED, in and around all of the buildings and facilities that will remain in place.

26. Following Cessation of Operations, Tyrone shall abate contaminated soils that are potential source areas for ground water and surface water contamination in accordance with Sections 20.6.2.1203, 20.6.2.3109.E.1 and 20.6.2.4103NMAC, as approved by NMED, in and around all structures and facilities approved by MMD to be left for an industrial post mining land use.

27. At least 60 days prior to any structure removal or demolition, Tyrone shall submit to NMED for approval a structure removal plan. The structure removal plan shall address any potential discharges of leachate that could cause an exceedance of ground water standards, including soils that are potential source areas for ground water contamination. The structure removal plan shall include a soil sampling plan, a sampling plan for the structures, and a contingency plan to address potentially contaminated soils, debris and other materials beneath and surrounding the structures. Structure demolition shall be performed as approved by MMD to meet NMMA requirements.

28. Following Cessation of Operations, Tyrone shall dispose, remove, sell, or use, and otherwise manage all reagents, explosives and other hazardous chemicals according to applicable state and federal laws.

29. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval a schedule to identify all existing mining shafts and adits within the Tyrone Mine Facility. Within 180 days of Cessation of Operation of the Tyrone Mine Facility, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for closure of any identified shafts and adits that may provide a conduit for wastes or contaminated water to reach ground water. Such shafts and adits shall be adequately sealed. Tyrone may implement an alternative method for closure of the shafts and adits with NMED approval.

Closure of Pipelines and Tailings Launders

30. Tyrone shall remove and properly dispose of the process water, tailings, PLS and raffinate pipelines that are located on the surface of the ground and close the associated sumps as soon as they are no longer needed for site operations, water treatment, or other post-closure water management, unless Tyrone demonstrates that leaving pipelines in place will not result in exceedances of the standards of Section 20.6.1 NMAC and Section 20.6.2.3103 NMAC. Any residual sediments or contaminated water shall be removed from the above referenced pipelines prior to closure. At least 180 days prior to

scheduled pipeline removal activities, Tyrone shall submit a pipeline closure plan to NMED for approval outlining specific closure procedures for pipelines, and any other structures designed to contain process water, PLS, and raffinate. Prior to pipeline removal or capping, Tyrone shall rinse all pipelines to ensure removal of all potential contaminants contained in the pipelines. During pipeline removal, Tyrone shall inspect the entire pipeline area for any evidence of past spills and characterize the impacts and potential impacts of any such spills. Tyrone shall document all areas where there is evidence of spills and propose to NMED appropriate corrective actions pursuant to provisions of Section 20.6.2.1203 NMAC. Corrective actions shall include an evaluation of cleanup alternatives. Following pipeline removal, Tyrone shall remove all soil and tailing material associated with the pipeline bedding that was constructed of acid producing material unless Tyrone makes the demonstration that all applicable surface water and ground water standards will be met pursuant to Sections 20.6.1 and 20.6.2 NMAC. Alternative closure measures for buried pipelines may be proposed for NMED approval.

31. Within 180 days prior to closure activities at any Tailing Impoundment, Tyrone shall submit to NMED for approval a plan, including an implementation schedule, outlining specific closure procedures for associated launders, sumps, and any other structures designed to contain tailings at such impoundment. The plan shall be consistent with the proposed Tyrone CCP. Prior to launder decommissioning, Tyrone shall inspect the launder to ensure that all potential contaminants contained in the launder are removed and placed on an existing Leach Ore Stockpile or Tailings Impoundment. At the time of launder reclamation activities, Tyrone shall inspect the entire tailing launder area for any evidence of past spills and characterize the impacts and potential impacts of any such spills. Tyrone shall document all areas where there is evidence of spills and propose to NMED appropriate corrective actions pursuant to the provisions of Section 20.6.2.1203 NMAC. Corrective actions shall include an evaluation of cleanup alternatives.

Abatement of Water Contamination

32. Tyrone shall continue to operate existing, or approved replacement, ground water contamination interceptor and abatement systems in accordance with this Supplemental Discharge Permit after Cessation of Operation as needed to protect ground water and surface water quality. These systems must be operated until monitoring indicates that applicable ground water standards have been achieved and maintained for two consecutive years or in accordance with the terms of an approved abatement plan. Any changes to these systems must be proposed to and approved by NMED prior to the change being implemented. All abatement plan submittals shall be submitted pursuant to the appropriate Operational Discharge Permit(s) or to this Supplemental Discharge Permit, as approved by NMED. NMED may require these systems to be expanded based on the results of ongoing ground water sampling or future investigations as necessary to ensure that the requirements of the WQA and the WQCC Regulations are met.

33. Tyrone shall collect, treat and properly manage all Leach Ore Stockpile, Waste Rock Pile and Tailing Impoundment leachate, contaminated ground water, Open Pit water from

dewatering activities, and collected stormwater from the Tyrone Mine Facility, if such leachate or water exceeds the standards set forth in Sections 20.6.2.3103 or 20.6.2.4103 NMAC or contains a toxic pollutant as defined in Section 20.6.2.1101 NMAC. The leachate and water shall be collected in synthetically lined impoundments that are approved by NMED. Tyrone may seek NMED approval for the use of an alternative system that does not use a synthetic liner by demonstrating that the proposed alternative system adequately protects ground water in accordance with the requirements of the WQCC Regulations.

34. Within 90 days after the Effective Date of this permit, Tyrone shall submit to NMED for approval a proposed abatement plan or plans, including a schedule to investigate all known areas of ground water and surface water contamination and potential sources of ground water and surface water contamination at the Tyrone Mine Facility, and define the extent and magnitude of ground water contamination in accordance with Sections 20.6.2.3109.E.1 or 20.6.2.4000 NMAC through 4115 NMAC. Each abatement plan shall be incorporated into the appropriate Operational Discharge Permit. NMED may require an analysis of abatement alternatives pursuant to Sections 20.6.2.4106.E.2 NMAC.

35. In the event of Cessation of Operation at the Tyrone Mine Facility prior to orderly drain down of process solutions (e.g., PLS, raffinate, make-up water) in the Leach Ore Stockpiles, pipelines and Surface Impoundments, Tyrone shall continue to operate and maintain pumps, containment structures and collection systems in accordance with Conditions 32, 33, and 86 for water treatment and sludge disposal, or Tyrone shall propose an alternative for NMED approval to ensure compliance with Sections 20.6.2.3000 through 3114 and 4000 through 4115 NMAC.

Water Treatment and Sludge Disposal

36. Following Cessation of Operations of the copper leaching system, Tyrone shall implement water treatment utilizing water treatment facilities designed to achieve applicable water quality standards. Tyrone shall construct, operate and maintain a water treatment system to treat through a combination of engineered membrane filtration, chemical lime precipitation and polishing treatment as necessary, all contaminated water, if such water exceeds the water quality standards in Section 20.6.2.3103 NMAC. The water treatment plant shall be designed with a useful operating life of a minimum of 100 years and an initial normal operating capacity of 2,560 gpm and a maximum capacity of 3,150 gpm. The operating life shall consider replacement costs for the components of the water treatment system. The water treatment system shall be designed to ensure compliance with Section 20.6.2.3103 NMAC. Operation of the water treatment plant at the Tyrone Mine Facility shall commence within one year of Cessation of Operation of the SX-EW Plant. Tyrone may request NMED approval of an extension of the schedule for the implementation of the water treatment plant. The request shall include justification for the period of extension and shall ensure that the requirements of the WQA and the WQCC Regulations are met. Treated water shall be discharged in accordance with all applicable federal, state, and local laws, regulations, and permits. Tyrone may propose alternative water treatment systems for NMED approval. Within

180 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval a revised cost estimate for the treatment system for purposes of financial assurance. Such cost estimate shall include, at a minimum, costs for a NPDES permit for discharge of treated effluent; costs for operation and maintenance of the system for at least 100 years; and replacement costs.

37. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a report on management of the pit interceptor well water. The report shall include an identification of the location and extraction rate of pit interceptor wells to be used after Cessation of Operations, and a description, including locations, of the proposed discharge of the pit interceptor well water. The report shall include an evaluation of the potential need for treatment of pit interceptor well water before discharge of the extracted water. The report shall also include an estimate of the costs of treating, if necessary, and discharging the pit interceptor well water for purposes of financial assurance.

38. Sludge produced from the water treatment plant operation and maintenance shall be managed and disposed of in accordance with the plan described in Condition 86.

Closure and Post-Closure Monitoring, Reporting, Inspections, and Other Requirements

39. Tyrone shall perform closure monitoring for each portion of the Tyrone Mine Facility during the closure period (i.e., from the date of Cessation of Operation until the date of Certification of Closure for that portion of the Tyrone Mine Facility under Condition 66). Tyrone shall submit all closure monitoring results under the appropriate approved Tyrone Operational Discharge Permits as outlined in Conditions 58 and 59.

40. Tyrone shall begin post-closure monitoring upon Certification of Closure for any closed area, and shall perform such monitoring for a minimum of 100 years following Certification of Closure.

41. Upon notification from NMED that the operation of a contamination interceptor or abatement system may cease in accordance with Condition 32, Tyrone shall continue the approved monitoring program for a minimum of 30 years or for the remainder of the 100-year post-closure monitoring period, whichever is longer, to ensure that there is no rebound in contaminant concentrations. If monitoring indicates that any ground water standard is exceeded after shut down of the contamination interceptor or abatement system, system operation shall resume in accordance with Condition 32 and monitoring shall continue in accordance with Conditions 39 and 40.

42. Upon NMED approval that post-closure monitoring is complete, Tyrone shall submit a schedule for abandonment of all appropriate monitoring wells. All monitoring wells shall be abandoned pursuant to *NMED Monitoring Well Construction and Abandonment Guidelines* and according to regulations issued by the Office of the State Engineer in 19.27.7 NMAC, unless an alternative completion is approved by NMED.

43. Tyrone shall conduct water quality monitoring, analysis and other monitoring and provide periodic reports as required by Conditions 44 through 60. Tyrone may request a modification to the frequency of sampling and reporting requirements of Conditions 44 through 60 consistent with the provisions of Section 20.6.2.3109.C NMAC. After two years of post-closure monitoring at any given closed area, NMED may approve elimination of or an amendment to the monitoring frequency, locations and analytical parameters or other measurements set forth in specific post-closure monitoring Conditions 40 through 60 for good cause shown in a written request from Tyrone. Any request from Tyrone for monitoring and reporting reductions shall include a justification for the monitoring reduction and a map showing selected well locations. Following any change in the monitoring requirements, Tyrone may propose to revise the closure cost estimate as required by Condition 97.

Sampling, Field Measurements and Periodic Inspections

44. Ground Water Monitoring Wells. Tyrone shall conduct closure and post-closure monitoring, at the frequency stated in the Operational Discharge Permits, of all monitoring wells that were subject to monitoring under the Operational Discharge Permits at the time of closure. Tyrone shall conduct quarterly closure and post-closure monitoring of all new monitoring wells installed after closure. Tyrone shall record the depth to water to the nearest hundredth of a foot (0.01 ft) in all on-site monitoring wells. Samples shall be analyzed for the water parameters listed in Condition 56. Monitoring well data shall be reported as required in Condition 58.

45. Ground Water Supply Wells. Tyrone shall sample and analyze ground water quality in any private supply well within a reasonable proximity to the Tyrone Mine Facility when the well owner or NMED requests an analysis and there is a reasonable basis to believe that the supply well may have been contaminated by a discharge from the Tyrone Mine Facility. Tyrone shall make a good faith effort to obtain access to private wells for which NMED requests analysis. Samples shall be collected and analyzed for the water parameters listed in Condition 56. Analytical results shall be reported as required in Condition 58.

46. Seeps and Springs. Tyrone shall conduct closure and post-closure monitoring, at the frequency stated in the Operational Discharge Permits, of all existing seeps and springs within a reasonable proximity to the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles on the Tyrone Mine Facility. Samples shall be collected from each seep and spring once per quarter and shall be analyzed for the water parameters listed in Condition 56. Active seep and spring locations shall be recorded on a map and seep flow rates shall be measured, to the extent practicable, in gallons per minute (gpm) from each flowing seep and spring once per month. Seep and spring locations, analytical results, and seep flow rates shall be reported as required in Condition 58.

47. Seepage Interception Systems. Tyrone shall conduct quarterly closure and post-closure monitoring of the No. 3 Stockpile, Oak Grove, Brick Kiln Gulch, Deadman Canyon, and the No. 1X Seepage Interception System and any other seepage interception or

remediation system components. Locations to be monitored include extraction wells and any new collection points added to the seepage interception systems installed after issuance of this Supplemental Discharge Permit. Tyrone shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) in all extraction wells on a quarterly basis. The total volume of intercepted and extracted seepage water shall also be monitored and recorded. Samples shall be analyzed for the parameters listed in Condition 56. Analytical results, water level measurements and flow rates shall be reported as required below in Condition 58.

48. Surface Water. Tyrone shall conduct quarterly closure and post-closure monitoring of surface water quality at Mangas Creek, Wind Canyon tributary, Red Rock Canyon tributary, Whitewater Canyon tributary, Deadman Canyon tributary, Brick Kiln Gulch, and Oak Grove Creek. Within 150 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval, a closure and post-closure surface water sampling plan. The plan, at a minimum, must include sampling locations and sampling frequency. Additionally, all surface impoundments used for storm water control for the Leach Ore Stockpiles, Waste Stockpiles, and Tailing Impoundments shall be sampled semiannually if water is present at the time of sampling. All surface water samples shall be analyzed for the parameters listed in Condition 56. Surface water sampling results shall be reported as required in Condition 58.

49. Tailing Impoundment Draindown. Within one year after the Effective Date of this Supplemental Discharge Permit, Tyrone shall prepare a potentiometric map depicting the elevation of the upper surface of the saturated zone for the No. 1, 1A, 1X, 2, 3X, and Burro Mountain Tailing Impoundments. Within 90 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall prepare a potentiometric map depicting the elevation of the upper surface of the saturated zone for the Number 3 Tailing Impoundment. Water level measurements may be supplemented with data from other moisture monitoring equipment or other methods approved by NMED. The potentiometric map shall be revised annually and submitted as required in Condition 58 due on or before January 15 of each year. For good cause shown, Tyrone may propose to NMED for approval a reduction the frequency of potentiometric map submittals.

50. Temperature, Oxidation-Reduction Potential (Redox) and/or Oxygen Monitoring. Following Cessation of Operation, Tyrone shall monitor temperature, redox and/or oxygen profiles within the all Leach Ore Stockpiles and Waste Rock Piles. The locations, frequencies and parameters for the monitoring shall be based on the study described in Condition 80. Results shall be reported as required below in Condition 58.

51. Entry. Tyrone shall inspect and maintain the fencing or other management systems to prevent access of wildlife, livestock or unauthorized humans to the Open Pits, Surface Impoundments or any sump that contains waters that may be harmful or toxic.

52. Piezometers. Following Cessation of Operation, Tyrone shall record the depth to water to the nearest hundredth of a foot (0.01 ft) in all on-site piezometers. Monitoring shall be conducted semiannually and reported pursuant to Condition 58. Any changes to the

piezometer network shall be reported to NMED. Tyrone shall install additional piezometers or other water level and moisture monitoring devices to monitor draindown conditions in the Tailing Impoundments as necessary to assess long term trends and to provide in situ estimates for use in flux calculations.

53. Revegetation. To ensure that revegetation is protective of water quality, Tyrone shall, at a minimum, perform closure and post-closure monitoring of revegetation pursuant to schedules and monitoring requirements approved by MMD. Any proposed changes to the closure or post-closure revegetation monitoring plan to meet the New Mexico Mining Act (NMMA) requirements shall be submitted to NMED to ensure monitoring is protective of water quality. Tyrone shall provide a summary of revegetation monitoring results, including photographic documentation, in annual reports to NMED. At such time as MMD's revegetation monitoring requirements under the NMMA have been met, revegetation monitoring shall continue under the authority of NMED pursuant to this Supplemental Discharge Permit and the NMED/MMD Joint Powers Agreement dated January 24, 2001.

54. Erosion. Tyrone shall visually inspect closed lands for signs of excessive erosion and shall mitigate significant erosion features to prevent further degradation of the site. Drainage channels, diversion structures, retention ponds, and auxiliary erosion control features shall be inspected in accordance with professionally recognized standards (e.g., Natural Resource Conservation Service standards). The inspections shall be conducted monthly for the first year following completion of closure construction activities, and quarterly thereafter until the end of post-closure monitoring. Closed areas shall additionally be inspected for evidence of erosion after storm events of one inch or greater in any 24-hour period measured at the nearest rain gauge. Tyrone shall verbally report evidence of major rill, gully, or sheet erosion on any closed area to NMED within 24 hours of discovery. Tyrone shall provide a written report within 30 days of the discovery describing the nature and extent of erosion and steps taken to repair the erosion. NMED may require Tyrone to take additional actions to repair or otherwise mitigate the erosion.

55. Meteorological Data. Tyrone shall conduct closure and post-closure monitoring of site-specific meteorological conditions at both the Mangas Valley Tailings Area and the Mining Area. Meteorological conditions that shall be recorded include air temperature, relative humidity, wind speed, wind direction, precipitation, net solar radiation and evaporation. A summary of daily meteorological data shall be reported annually for evaluation of cover performance under this Supplemental Discharge Permit.

Analysis

56. All surface water samples obtained pursuant to the closure and post-closure monitoring requirements of this Supplemental Discharge Permit shall be analyzed for both total and dissolved concentrations of the analytes listed below. Samples collected from ground water monitoring wells, the ground water remediation and seepage interceptor systems, seeps, and springs shall be analyzed for dissolved concentrations of the analytes listed below.

a. Field parameters (analysis to be performed in the field): temperature, pH, Eh, and electrical conductivity.

b. General chemistry parameters: calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, nitrate, fluoride, and total dissolved solids.

c. Metals parameters: aluminum, arsenic, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, silver, vanadium, and zinc.

d. Additional parameters as NMED requires on case by case basis: barium, boron, uranium, gross alpha, cyanide, mercury (total concentration only), total polynuclear aromatic hydrocarbons (PAHs), benzene, ethyl benzene, toluene and xylene (BTEX), ammonia, and Total Kjeldahl Nitrogen (TKN).

Methodology

57. Unless otherwise approved in writing by NMED, Tyrone shall conduct sampling and analysis in accordance with the most recent edition of the following documents:

a. American Public Health Association, *Standard Methods for the Examination of Water and Wastewater.*

b. U.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Waste.*

c. U.S. Geological Survey, *Techniques for Water Resource Investigations of the U.S. Geological Survey.*

d. American Society for Testing and Materials, *Annual Book of ASTM Standards,* Part 31, Water.

e. U.S. Geological Survey, et al., *National Handbook of Recommended Methods for Water Data Acquisition.*

f. Surface water monitoring must also be conducted according to test procedures approved under Title 40 of Federal Regulations Part 136.

Reporting

58. All closure and post-closure ground water, surface water, seep, spring, interceptor system, tailing draindown, piezometer, temperature, redox and/or oxygen profile monitoring data shall be reported quarterly under the applicable Tyrone Operational Discharge Permits. Following closure of any portion of the Tyrone Mine Facility,

Tyrone shall apply for amendment of the Tyrone Operational Discharge Permits that remain in effect for the closed portion so that the frequency of monitoring, the parameters monitored and the results of all monitoring tasks are consistent with those required in this Supplemental Discharge Permit. Tyrone may request to combine discharge permits for purposes of closure or post-closure monitoring and reporting, or may request to terminate discharge permits and incorporate remaining closure and post-closure activities under this Supplemental Discharge Permit. In addition to the requirements listed above, all monitoring data shall be provided to NMED in an electronic format mutually agreed upon by NMED and Tyrone at the time of monitoring data submittal.

59. After the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED quarterly reports under this Supplemental Discharge Permit on or before January 15, April 15, July 15 and October 15 of each year. The reports shall contain a description of any work completed during the preceding quarter towards final closure of the Tyrone Mine Facility. This requirement includes, but is not limited to: 1) status of closure activities and related studies for the Open Pits; each Tailing Impoundment, Waste Rock Pile, Leach Ore Stockpile, and Surface Impoundment; mine infrastructure and any other areas covered under this Supplemental Discharge Permit; 2) any maintenance and repair work conducted for any closure component; and 3) closure and post-closure monitoring results for revegetation, erosion and preventative measures to restrict access.

60. Tyrone shall prepare four potentiometric maps annually that include data from monitoring wells, extraction wells, piezometers, seeps and springs. The potentiometric maps shall depict the potentiometric surfaces of the shallow and regional aquifer system beneath the Mangas Valley Tailings Area and the Mining Area. The Mangas Valley Tailings Area potentiometric map shall be bounded by Highway 180 to the north, Mangas Valley to the west and east and the No.3 Stockpile to the South). The Mining Area potentiometric map shall be bounded by the No.3 Stockpile to the North, Deadman Canyon to the west, Little Burro Mountains to the east and Oak Grove Creek to the South. The potentiometric maps shall be submitted to NMED with the first quarterly report described in Condition 59 on or before January 15 of each year. Additionally, Tyrone shall submit an aerial image map or other approved imagery of the entire Tyrone Mine Facility every five years.

Closure and Post-Closure Maintenance

61. Tyrone shall perform quarterly inspections and annual evaluations of all ground water abatement systems, including the seepage interceptor systems, and perform maintenance as necessary to ensure that all water contaminants are managed in a manner that is protective of ground water quality. Maintenance may include but is not limited to the following: 1) purging of extraction wells; 2) upgrading or replacement of seepage barriers; and 3) servicing or replacement of components of the seepage interception and ground water extraction and remediation systems. The inspection results and any maintenance performed by Tyrone on the abatement system components shall be reported annually as part of the appropriate Tyrone Operational Discharge Permits.

62. Tyrone shall perform maintenance on all closed areas, including final covers, revegetation and any associated drainage and diversion structures, as necessary to preserve the integrity of the final cover and to ensure that the requirements of the WQA and WQCC Regulations are met. Based on monitoring of revegetation and erosion required by Conditions 53 and 54, Tyrone shall provide recommendations for maintenance work in quarterly monitoring reports, including a schedule for completion of the work.

63. Tyrone shall routinely inspect and maintain all structures, facilities, supplies and equipment whose failure may impact ground water or surface water. Inspections and maintenance shall include but are not limited to: 1) stormwater and process water retention impoundments; 2) the water treatment plant; 3) pumps and pipelines to deliver water to the water treatment plant; and 4) seepage collection impoundments. Ground and surface water that exceeds the applicable quality standards shall be handled and stored in a manner that is consistent with applicable regulatory requirements.

Implementation of Closure Plan

64. Tyrone shall provide written notice informing NMED of Cessation of Operation within 15 days of the Cessation of Operation. Unless NMED has granted an extension as described below, Tyrone shall implement the closure plan for any portion of the Tyrone Mine Facility within 180 days of Cessation of Operation of that portion of the facility, unless operations resume within 180 days of the Cessation of Operation. Tyrone may request NMED approval of an extension of the schedule for the implementation of all or portions of the closure plan. The request may be in the form of a copy of an application for a Standby Permit under the New Mexico Mining Act and shall include an adequate operational and interim closure plan for the period of extension to ensure that the requirements of the WQA and the WQCC Regulations are met. The extension shall not be longer than the remaining term of the existing discharge permit. Upon initiation of the discharge permit renewal process, stand-by requirements and proposed schedules for implementation of the closure plan shall be re-evaluated by NMED.

65. Within 150 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval a comprehensive schedule for implementation and completion of surface shaping, final cover placement, drainage, revegetation and other closure activities, following Cessation of Operation, as appropriate for all Tailing Impoundments, Leach Ore Stockpiles, Waste Rock Piles, Surface Impoundments, and any other areas requiring closure under this Supplemental Discharge Permit. The schedule shall detail the step-by-step progression of surface shaping, final cover placement, drainage, revegetation and other closure activities including the proposed duration for each step.

66. Within 90 days after the completion of closure activities for all or a portion of the Tyrone Mine Facility, including submittal of any CDQA, or within such other time as NMED approves, Tyrone shall submit to NMED a written request for Certification of Closure. The request shall be signed by a responsible company official, certifying that closure has

been completed in accordance with the conditions of this Supplemental Discharge Permit. If NMED approves the request, it will issue a written Certification of Closure for that portion of the Tyrone Mine Facility covered by the request. If NMED does not approve the request, it will notify Tyrone in writing of the activities that Tyrone must undertake to complete closure.

Contingency Plan

67. In accordance with Section 20.6.2.1203 NMAC, Tyrone shall report and remedy any discharge not approved in this Supplemental Discharge Permit or an Operational Discharge Permit. This requirement includes, but is not limited to, corrective action to contain and remove or mitigate the condition, oral notification of NMED within 24 hours after discovery of the condition, written notification of NMED within one week after discovery of the condition, submittal of a corrective action report within fifteen (15) days after discovery of the condition, and submittal of an abatement plan in accordance with Section 20.6.2.1203.A.9 NMAC or, if required by NMED, in accordance with Conditions 32 through 35 of this Supplemental Discharge Permit.

68. For areas where the closure activities described in this Supplemental Discharge Permit will require relocation of permitted monitoring wells, toe control systems and seepage interception systems, Tyrone shall submit a plan to NMED for approval at least 60 days prior to initiation of closure activities. The plan shall include a schedule for abandonment and/or replacement of all affected monitoring wells, toe control systems and seepage interception systems. The plan shall outline specific wells or systems to be replaced and shall address closure and post-closure monitoring requirements consistent with this Supplemental Discharge Permit. All new monitoring wells shall be constructed and abandonment pursuant to *NMED Monitoring Well Construction and Abandonment Guidelines* and according to regulations issued by the Office of the State Engineer in 19.27.7 NMAC, unless an alternative completion is approved.

69. If Tyrone discovers a significant increase in the extent or magnitude of ground or surface water contamination, during closure or post-closure monitoring, or a significant increase in discharge volume from any seep or existing discharge point, Tyrone shall notify NMED within 5 days of discovery of the increase pursuant to the applicable Tyrone Operational Discharge Permit. If NMED discovers such an increase, it will notify Tyrone. Within 60 days of discovery or receipt of notification, whichever is earlier, Tyrone shall submit to NMED for approval an abatement plan including an implementation schedule to address source control and abatement of the contamination in accordance with Section 20.6.2.3109.A.1 NMAC. Upon NMED approval, Tyrone shall implement the abatement plan in accordance with the implementation schedule. The approved abatement plan and schedule shall be submitted to NMED pursuant to the appropriate Operational Discharge Permit(s) or this Supplemental Discharge Permit.

70. Within 240 days of the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval a contingency plan to address the reasonably foreseeable failure of any component of the closure plan, including but not limited to

failure of collection, containment or treatment systems, failure of covers or revegetation, failure of surface run-on and run-off controls, or failures in slope stability, that may result in an exceedance of water quality standards or otherwise threaten public health or the environment. The contingency plan shall provide criteria for determination of closure component failures, including cover erosion criteria. Tyrone shall submit to NMED annual updates of the contingency plan to incorporate relevant details as the closure plan is implemented.

71. If NMED determines that the cover is not protective of ground water quality after closure of the Tailing Impoundments, Waste Rock Piles or Leach Ore Stockpiles, NMED shall notify Tyrone, in writing, of its determination and may request Tyrone to submit a modification of its discharge plan in accordance with 20.6.2.3109.E NMAC.Unless Tyrone contests the determination, Tyrone shall submit to NMED for approval a proposed work plan including a schedule to remedy such failure, which may include redesign of the final covers. Upon NMED approval, Tyrone shall implement the work plan according to the approved schedule.

72. If NMED or Tyrone identifies any other reasonably foreseeable failure of this Supplemental Discharge Permit or system not specifically addressed above, NMED may require Tyrone to develop and submit to NMED for approval contingency plans and schedules to address such a failure.

73. Within 240 days after the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval an Emergency Response Plan that identifies operational parameters and provides contingencies for operational failures associated with water management at the Open Pits, the Leach Ore Stockpiles and Waste Rock Piles, process water, collection impoundments, sumps or any other type of impoundment that contains water that may be harmful or toxic. The plan shall include normal operational water levels for all impoundments and contingencies to be implemented if specified water levels are exceeded. Tyrone shall submit to NMED annual updates of the Emergency Response Plan to incorporate relevant details as the closure plan is implemented.

Additional Studies

74. Within 45 days after the Effective Date of this permit, Tyrone shall submit to NMED for approval a proposed schedule for submission of work plans, implementation, and completion of studies described in the following conditions. NMED will review the schedule and will approve it if it adequately addresses the timely completion of the work needed to complete the feasibility study specified in Condition 89. In the event that an approvable schedule has not been submitted within 90 days after the Effective Date of this Supplemental Discharge Permit, NMED may impose a schedule with specific deadlines. The approved schedule for the implementation and completion of any studies described in this Supplemental Discharge Permit may be adjusted by NMED upon request by Tyrone to coordinate with the requirements for the same or similar studies to be performed under the mining permit revision issued by MMD approving Tyrone's

Closeout Plan under the NMMA. Tyrone may propose, subject to NMED approval, to use data obtained from studies conducted at the Phelps Dodge Chino Mine pursuant to DP-1340 for the studies required in Conditions 75 to 89. Tyrone must specify the data it proposes to use, and provide the scientific basis for such use, in the appropriate work plan.

75. Tyrone shall perform a comprehensive cover performance evaluation. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule, for a comprehensive cover performance evaluation. The purpose of the comprehensive cover performance evaluation is to evaluate the type and thickness of the proposed cover materials and to further characterize the physical and hydraulic properties of the proposed cover materials for the Leach Ore Stockpiles and Waste Rock Piles. The study shall be designed to determine whether the cover described in this Supplemental Discharge Permit and/or alternative cover systems will ensure that the requirements of the WQA and WQCC Regulations are met. The study shall include an evaluation of the feasibility of limiting infiltration through the required covers or alternative covers to 1% or less of mean annual precipitation in conjunction with the study required in Condition 89. The evaluation shall include, at a minimum, a prediction of post-closure impacts of Leach Ore Stockpile and Waste Rock Pile seepage to ground water quality based on a calibrated soil atmosphere model, calibrated ground water flow model(s), and geochemical modeling. Within three years of NMED approval of the work plan, Tyrone shall submit to NMED a report presenting the results of the comprehensive cover performance evaluation. The comprehensive cover evaluation report shall be updated with data from the cover, erosion and revegetation test plot study described in Condition 76 and any other applicable studies, when available. Based on the results of the comprehensive cover performance evaluation, NMED shall reevaluate the cover design required in Condition 17 and amend the cover design as necessary.

76. Tyrone shall perform a cover, erosion and revegetation test plot study for the Leach Ore Stockpiles and Waste Rock Piles. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for a cover, erosion, and revegetation test plot study. The purpose of the study is to evaluate, at a minimum: net infiltration through the store and release cover with differing cover thicknesses; feasibility of construction and construction techniques required during cover placement; erosion rates; vegetation success; and the potential upward migration of acidic solutions from the Waste Rock Piles and Leach Ore Stockpiles. In addition, the study shall be designed to evaluate how site revegetation will assist in facilitating the performance of covers and protecting ground water quality. The study shall incorporate measurement of revegetation parameters as required by MMD. At a minimum, the study shall incorporate the following: 1) measurement of chemical parameters including pH, electrical conductivity, and selected metals from water samples; 2) collection of daily site-specific meteorological data; 3) instrumentation to measure in situ soil moisture content and to measure infiltration through the covers and to calibrate numerical modeling; 4) measurements of vegetation success and erosion on varying slope angles and aspects; and 5) temperature measurements within the test plots. The cover,

erosion and revegetation test plot study shall be coordinated with the comprehensive cover performance evaluation study required by Condition 75. Tyrone shall submit to NMED annual reports summarizing the results of the study, including recommendations for improvement. Within 180 days prior to renewal of this Supplemental Discharge Permit, Tyrone shall submit a report that evaluates the test plot results as they relate to the requirements of the WQA and WQCC Regulations and the conditions of this Supplemental Discharge Permit. The study shall propose additional test plots, if necessary. The cover and revegetation test plot study shall be conducted until NMED makes a determination, in consultation with MMD, that the study may be discontinued. For any given test plot, the cover thickness, seed mixture, and fertilizer application rate shall not be modified during the evaluation period without written approval from NMED. Tyrone shall construct cover test plots using equipment and material that are proposed to construct final full-scale covers. Test plots shall be of a large enough scale to approximate actual reclamation practices to be performed at the site.

77. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for determining the effectiveness of the cover system for the Tailing Impoundments following cover placement. This work may be performed on a representative Tailing Impoundment. The work plan, at a minimum, shall address revegetation success, erosion, potential upward migration of contaminants into the cover and infiltration.

78. Tyrone shall perform a supplemental stability study on the Waste Rock Piles and Leach Ore Stockpiles at the Tyrone Mine Facility. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for a supplemental stability study to evaluate the long-term physical stability of Waste Rock Piles and Leach Ore Stockpiles after closure. The study shall evaluate and quantify changes in the engineering parameters resulting from the natural weathering process of the Waste Rock Pile and Leach Ore Stockpile materials that may ultimately affect long-term stability. At a minimum, the work plan shall propose methods and analysis to account for changes in chemical and physical properties of the stockpile materials from the time of deposition to present day and to a specified time during post-closure. The study shall include an evaluation of the recently reported data for materials interior to the stockpiles and whether additional data collection is warranted to evaluate long-term stability.

79. Tyrone shall revise the borrow source materials investigation for the Leach Ore Stockpiles and the Waste Rock Piles. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule, for a revised borrow source materials investigation. The investigation shall be designed to consider the data needs for the cover performance evaluation described in Condition 75. The investigation shall, at a minimum, identify all borrow source locations and the collection of an adequate number of samples to establish the relevant physical and chemical characteristics of the borrow material proposed to be used for cover.

80. Tyrone shall perform a supplemental materials characterization study of the Leach Ore Stockpiles and Waste Rock Piles located at the Tyrone Mine Facility. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule for the supplemental materials characterization study of the Leach Ore Stockpiles and Waste Rock Piles located at the Tyrone Mine Facility. The study shall include instrumentation of the Leach Ore Stockpiles and Waste Rock Piles, which may be accomplished by using representative stockpiles, and shall be designed to consider the data needs for the studies described in Conditions 50, 78, 81, 82, and 83. The evaluation shall include, but not be limited to, the collection of an adequate number of samples to establish the geotechnical and geochemical characteristics of each individual Leach Ore Stockpile or Waste Rock Pile as necessary to refine closure designs.

81. Tyrone shall submit a revised seepage investigation report for the Leach Ore Stockpiles and Waste Rock Piles under closure conditions. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule, for a revised seepage investigation for the Leach Ore Stockpiles and Waste Rock Piles. The study shall be designed to consider the data needs for Conditions 82, 83 and 89, and the results of the materials characterization study described in Conditions 80. The purpose of this investigation is to predict, at a minimum, the quantity and quality of seepage from individual Leach Ore Stockpiles and Waste Rock Piles and potential associated impacts to ground water and surface water following Cessation of Operation.

82. Tyrone shall perform a study to supplement existing ground water studies and evaluate the hydrologic conditions beneath the Tyrone Mine Facility. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule, for a study to evaluate the hydrologic conditions beneath the Tyrone Mine Facility. The study shall consider the data needs for the Pit Lake Formation study described in Condition 83. The study shall be designed to determine whether the proposed closure alternatives will achieve the requirements of the WQA and the WQCC regulations. As part of the study Tyrone may be required to install additional monitoring wells for the collection of temperature, flow direction, water quality and water level data beneath the Leach Ore Stockpiles and Waste Rock Piles.

83. Tyrone shall perform a study to supplement the existing Pit Lake Formation Model submitted January 22, 1999. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule, for a study to supplement the existing Pit Lake Formation Model submitted January 22, 1999. The study shall address the comment letter from NMED regarding the Tyrone Mine Pit Lake Formation Study and Pit Lake Water Quality Modeling dated January 30, 2001.

84. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval an evaluation of the reclamation activities conducted after the October 14, 1980 Tailings Spill at the No.3 Tailings Impoundment. The study shall be

submitted as an update to the Assessment of No.3 Tailing Pond Reclaim Area submitted on June 28, 2001. The evaluation shall include: location of the spill area and repositories; evaluation of the success of the past reclamation; photographs of reclamation areas; past monitoring activities at the affected area and recommendations and schedules for future work if necessary. The evaluation shall be designed to determine whether the reclamation previously performed achieves the requirements of the WQA and the WQCC regulations.

85. Tyrone shall perform a study to investigate the extent of deposition of tailings transported by wind or water off the Tailing Impoundments. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan, including an implementation schedule for a study to investigate the extent of deposition of tailings transported by wind or water off the Tailing Impoundments. The investigation shall address potential impacts to surface water, ground water and abatement and closure of areas containing the tailings.

86. Tyrone shall develop a preliminary sludge handling plan and cost estimate. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a report containing a preliminary sludge handling plan and cost estimate for the management of by-product sludge from the water treatment system. At a minimum, the plan shall address the locations and design of sludge management areas, volumes and tonnages of sludge, an operational plan, compliance with applicable waste management regulations (including chemical characterization of the sludge), and long-term sludge stabilization. Based on the results of this report, NMED may require Tyrone to amend or modify this Supplemental Discharge Permit to ensure protection of ground water and surface water.

87. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval, a work plan and implementation schedule for a Surface Impoundment study. The study shall be designed to determine which of the existing Surface Impoundments will be needed during closure and post-closure for stormwater retention or seepage interception and an implementation schedule for completion of reclamation.

88. Tyrone shall perform a process solution elimination study. In accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for a process solution elimination study. The purpose of the study is to evaluate alternatives and identify environmentally sound and cost effective methods to treat or eliminate the process solutions following Cessation of Operation or closure at the Tyrone Mines Facility. The study shall evaluate factors including but not limited to treatment plant size, pump size(s), number of pumps, pump rating, type of emitters, acreage and number of leach piles in the evaporation circuit, evaporation rates, and the use of evaporation ponds. Based upon the study results, Tyrone shall submit to NMED for approval a method for process water elimination.

89. Tyrone shall perform a feasibility study for closure of the Tyrone Mine Facility. In

accordance with the schedule approved under Condition 74, Tyrone shall submit to NMED for approval a work plan including an implementation schedule for a feasibility study designed to evaluate closure alternatives for each facility to be closed. The evaluation shall include a range of options for each alternative: for example, partial to full regrading of the Waste Rock Piles and Leach Ore Stockpiles. At a minimum, alternatives to be evaluated shall include: a) a no action scenario; b) relocation, regrading, cover placement, and revegetation; c) stormwater collection; d) leachate collection; e) contaminated ground water collection and remediation; f) reclamation of the Open Pits, including complete and partial backfill and reclaiming the area backfilled within the pits; g) water treatment; and h) appropriate combinations of the foregoing. Results of the analysis of alternatives shall be described in detail and summarized. The study shall be designed to determine whether the closure alternatives evaluated will ensure that the requirements of the WQA and the WQCC Regulations are met. At a minimum, alternatives shall be evaluated based on the following criteria: a) percentage reduction in infiltration, concentration, volume, and mobility of water contaminants; b) effectiveness in attaining ground water and surface water quality standards; c) technical feasibility; d) stability and durability; and e) cost, including capital costs, operating costs, and other appropriate costs and the impact of additional costs on mine reserves and operating life. The costs evaluated shall be given the least weight of all the factors evaluated. The feasibility study shall include a cost estimate with supporting data for each alternative evaluated including implementation, long-term maintenance and long-term financial assurance requirements. This feasibility study shall incorporate data and other information derived from the other additional studies required in this Supplemental Discharge Permit. The study shall be completed within four years after the Effective Date of this Supplemental Discharge Permit. Upon completion, Tyrone shall submit to NMED for approval a feasibility study report detailing the options evaluated and a proposed closure alternative for each facility.

90. If the results of the studies described above in Conditions 75 through 89, other studies performed under this Supplemental Discharge Permit, studies performed under the Tyrone Operational Discharge Permits, or studies performed under the NMMA indicate that additional or alternative closure actions are necessary to comply with the requirements of the WQA and the WQCC Regulations, Tyrone shall propose or NMED may require an amendment or modification of this Supplemental Discharge Permit to ensure protection of ground water and surface water. Any amendment or modification proposed by NMED shall be in accordance with 20.6.2.3109 NMAC.

Financial Assurance

91. Tyrone shall maintain financial assurance in an amount sufficient to cover the cost of a third party to implement the closure plan described in Conditions 1 through 90 of this Supplemental Discharge Permit. The financial assurance shall ensure that funds will be available to implement the closure plan if at any time after Cessation of Operation at the Tyrone Mine Facility, or any portion thereof, Tyrone is unable, unwilling, or otherwise fails to implement closure of the facility or portion thereof.

92. Within 30 days of the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval revisions to the closure cost estimate prepared by Tyrone, which is part of the DP-1341 Hearing Record. The cost estimate shall include revisions to reflect the costs of earthwork, revegetation, and water treatment required in this Supplemental Discharge Permit. Tyrone shall utilize existing cost estimates prepared by NMED for the additional earthwork costs, which are part of the DP-1341 Hearing Record. The water treatment cost estimate shall address water flow rates described in this Supplemental Discharge Permit, backup generation, and PLS elimination. The cost estimate shall also include a line item cost for each additional study provided for in Conditions 75 through 89. The cost estimate shall include supporting documentation justifying the cost basis for each study, and shall take into consideration the costs for work plan preparation, field work, sampling, field instrumentation, consultant fees, laboratory analyses, data evaluation, computer simulation, indirect costs, progress reports, responses to NMED comments, and final reports. The cost estimate, as it may be revised from time to time, shall be attached hereto as Attachment A.

93. Within 60 days after the date of the Effective Date of this Supplemental Discharge Permit, Tyrone shall submit to NMED for approval a draft of its proposed financial assurance instruments that meet the requirements of Conditions 91 through 97. Such instruments shall include: 1) a surety bond or other financial assurance instrument or instruments comprising a "financial assurance package," and 2) a trust agreement or similar document.

94. Within 30 days after NMED approval of the draft financial assurance instrument package, Tyrone shall execute each financial assurance instrument which, in combination, shall be sufficient to ensure the payment of the estimated costs of implementing the closure plan as determined under Condition 92. The financial assurance package shall be structured to provide for payment of the estimated costs of implementing the closure plan over the life of this closure plan, as shown in the Attachment A estimated annual cash flows, subject to an annual escalation rate of 3.17 percent for water treatment costs and 3.64 percent for other costs. Alternatively, the financial assurance package shall be sufficient to ensure up-front payment of the net present value of the estimated costs of implementing the closure plan based upon an annual escalation rate of 3.17 percent for water treatment costs and 3.64 percent for other costs and a discount rate of 5.00 percent for the first 12 years with an 8.00 percent discount rate for years 13 through 100. Each financial assurance instrument shall name NMED (or NMED and the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) for joint financial assurance) as the beneficiary. Each financial assurance instrument shall be in a form approved by NMED. Financial assurance in a form approved by NMED shall be maintained until the financial assurance is released.

95. Within 30 days after NMED approval of the draft trust agreement, Tyrone shall establish a trust to receive funds deposited for closure activities as provided for in Condition 91, and shall execute a trust agreement. The trust agreement shall name NMED (or NMED and EMNRD for joint financial assurance) as the beneficiary. The trust agreement shall be in a form approved by NMED. It shall incorporate the provisions of Condition 97.

The trust shall be maintained until the financial assurance is released. If specifically approved by NMED, Tyrone may provide alternate financial assurance instruments, in lieu of a trust agreement, that assure payment of the required amount.

a. Upon execution of the trust agreement, an emergency fund in the amount of $1,586,575 shall be deposited in the trust fund to cover immediate water management costs (e.g., pumps, personnel, electricity) should NMED need to proceed with forfeiture of the financial assurance prior to completion of mine closure.

b. Upon forfeiture of the financial assurance, the forfeited amounts shall be deposited directly into the trust to fund closure activities.

c. A separate long-term water treatment account shall be maintained as part of the Trust fund to cover the costs of operation (including the addition of chemicals), maintenance, and monitoring of the water treatment and seepage interceptor system, as enumerated in Attachment A.

d. The emergency fund, the long-term water treatment fund, and any other amounts deposited in the trust fund shall be maintained in separate accounts.

96. Within 35 days after NMED approval of the draft financial assurance instruments, Tyrone shall provide NMED with an original signed and notarized copy of each of the financial assurance instruments.

97. The financial assurance or financial assurance package, including any revised financial assurance, shall meet the following standard requirements:

a. The financial assurance or financial assurance package shall be in an amount sufficient to comply with Condition 91 based upon the NMED approved closure cost estimate, including escalation and discounting as provided in Condition 94. The closure cost estimate shall include direct costs associated with third party implementation of the closure plan, contingency costs and NMED oversight and administration costs, including indirect costs.

b. Except as provided herein, NMED shall be named as the sole beneficiary in each financial assurance instrument. Tyrone may select a joint financial assurance instrument to meet the requirements of NMED and the EMNRD. If a joint instrument is selected, both NMED and EMNRD shall be named as joint beneficiaries and the joint instrument shall meet the requirements of both agencies.

c. The financial assurance shall remain in effect throughout the term of this Supplemental Discharge Permit, including the post-closure period, and until replaced or released by NMED. The financial assurance shall remain in place at all times, including lapses in discharge permit coverage, late discharge permit renewal or temporary shutdown of facilities covered under this Supplemental Discharge Permit.

d. The financial assurance shall include a method for adjustments due to inflation, new technologies, and NMED approved revisions to the closure plan based on continued investigations or other information.

e. No more than once every 12 months, Tyrone may request that NMED review remaining closure measures, including alternate closure measures that NMED has approved. The request for closure review shall describe the closure work completed and shall contain an updated cost estimate for remaining closure measures. If NMED finds that the completed closure work has reduced the cost of completing the remaining closure measures, NMED will adjust the total amount of required financial assurance to reflect the revised cost estimate.

f. The financial assurance package shall be evaluated, and if necessary, revised to comply with WQCC financial assurance regulations, if and when such regulations are promulgated and become effective.

g. Each financial assurance instrument shall include a provision, which requires the financial assurance provider to provide at least 120 days written notice to NMED and Tyrone prior to cancellation or non-renewal of the financial assurance instrument. Tyrone shall obtain an NMED-approved alternate financial assurance mechanism within 60 days of such notice. If Tyrone fails to obtain alternate financial assurance within 60 days, the current financial assurance shall become immediately payable to the trust fund.

h. If NMED determines that implementation of the closure plan is required and that Tyrone is unable or unwilling or will otherwise fail to conduct or complete the closure requirements of this Supplemental Discharge Permit, then NMED may proceed with forfeiture of all or part of the financial assurance. Prior to beginning a forfeiture proceeding, NMED will provide written notice, by certified mail return receipt requested, to Tyrone and to all financial assurance providers, if applicable, informing them of the determination to forfeit all or a portion of the financial assurance. The written notice will state the reasons for the forfeiture and the amount to be forfeited. The amount shall be based on the total remaining cost of performing closure, including post-closure monitoring and maintenance, in accordance with this Supplemental Discharge Permit and all applicable laws and regulations. NMED will also advise Tyrone and all financial assurance providers, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by Tyrone, by a financial assurance providers, or by an NMED approved third party, to perform closure, including post-closure monitoring and maintenance, in accordance with this Supplemental Discharge Permit and all applicable laws and regulations, and a demonstration that such person has the financial ability and technical qualifications to do so. Financial assurance forfeited shall become immediately payable to the trust fund or as otherwise provided in the approved instrument. Forfeited funds shall be used to complete performance of the closure plan. If the forfeited amount is insufficient, Tyrone shall be liable for the remaining costs. If the amount forfeited is more than necessary, the excess amount shall be refunded to

the person from whom it was collected.

i. All or part of the financial assurance shall be released or modified when NMED determines that closure and post-closure measures covered by the financial assurance have been completed according to the closure plan requirements of this Supplemental Discharge Permit.

98. Within 60 days of NMED approval of a revised closure plan, or upon a determination that the existing financial assurance is inadequate, Tyrone shall submit to NMED for approval a revised closure cost estimate and financial assurance instruments which incorporate the provisions of Condition 97 above. Within 45 days of NMED approval of the revised financial assurance instrument, Tyrone shall execute the revised financial assurance instruments and submit signed, notarized copies to NMED.

IV. STANDARD PERMIT REQUIREMENTS

Record Keeping

99. Tyrone shall maintain at its facility a written record of all data and information on monitoring of groundwater, surface water, leachate, wastewater, and meteorological conditions conducted pursuant to this Supplemental Discharge Permit, including the following:

    a. The date, exact time, and exact location of each sample collection or field measurement;

    b. The name and job title of the person who performed each sample collection or field measurement;

    c. The date of the analysis of each sample;

    d. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;

    e. The analytical technique or method used to analyze each sample or take each field measurement;

    f. The results of each analysis or field measurement, including the raw data; and

    g. A description of the quality assurance and quality control procedures used.

100. Such data and information shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples.

101. Tyrone shall maintain a written record of any spills, seeps, or leaks of leachate, effluent, or process fluids not authorized by this Supplemental Discharge Permit or an Operational Discharge Permit.

102. Tyrone shall maintain a written record of the operation, maintenance, and repair of all facilities and equipment used to treat, store, or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Supplemental Discharge Permit. This record shall include repair, replacement, or calibration of any monitoring equipment and repair or replacement of equipment used in Tyrone's waste or wastewater treatment and disposal system.

103. Notwithstanding any company record retention policy to the contrary, until such time as NMED determines that all closure measures have been completed in accordance with the requirements of this Supplemental Discharge Permit, Tyrone shall retain copies of all data, records, reports, and other documents generated pursuant to this Supplemental Discharge Permit, including those listed in Conditions 39 through 60 above. Such record retention period may be increased by NMED at any time upon written notice to Tyrone.

104. All such data, records, reports, and other documents, including those listed in Conditions 39 through 60 above, shall be provided to NMED upon request.

Submittals

105. Tyrone shall submit three hard copies and one electronic copy of all required studies, work plans and technical reports to NMED. All other submittals and correspondence from Tyrone to NMED shall be submitted as one hard copy and one electronic copy. Electronic copies shall be in a format mutually agreed upon by NMED and Tyrone. All studies, work plans and technical reports shall contain, if applicable, the signature and stamp of the certified and registered Professional Engineer overseeing the submittal preparation. Upon submission, NMED will evaluate all studies, work plans and technical reports for technical completeness and adequacy. If NMED disapproves the proposed work plan or technical reports, NMED will provide a written notice of deficiency. Tyrone shall have 90 days from receipt of the written notice of deficiency to resolve deficiencies and obtain NMED approval. If NMED and Tyrone are unable to reach agreement within 90 days, Tyrone shall be in violation of this Supplemental Discharge Permit. All work plans and associated schedules submitted under this Supplemental Discharge Permit, once approved by NMED, shall be incorporated herein as an enforceable part of this Supplemental Discharge Permit.

Inspection and Entry

106. In accordance with the WQA, NMSA 1978, § 74-6-9.B and E, and the WQCC Regulations Section 20.6.2.3107.D NMAC, Tyrone shall allow any authorized representative of NMED, upon the presentation of credentials, to enter any property or premises owned or controlled by Tyrone during regular business hours or at other reasonable times for the following purposes:

a. To inspect and copy any data, records, reports, or other documents generated pursuant to this Supplemental Discharge Permit or Operational Discharge Permits, or pursuant to State or federal water quality regulations, including those listed in Conditions 99 through 105 above.

b. To inspect any equipment, device, monitoring system, well, collection system, pipeline or other conveyance system, treatment works, or other system or facility required by this Supplemental Discharge Permit or Operational Discharge Permits, or by State or federal water quality regulations.

c. To sample or monitor any leachate, water contaminant, effluent, or receiving groundwater or surface water at any location before, after, or during discharge.

d. To sample or monitor any well or other collection system.

107. Nothing in this Supplemental Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation.

Duty to Provide Information

108. In accordance with the WQA, NMSA 1978, §§ 74-6-5.I(4) and 74-6-9.B and the WQCC Regulations Section 20.6.2.3107.D NMAC, within a reasonable time after a request from NMED, which time may be specified by NMED, Tyrone shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Supplemental Discharge Permit, or to determine whether Tyrone is in compliance with this Supplemental Discharge Permit.

109. Nothing in this Supplemental Discharge Permit shall be construed as limiting in any way the information gathering authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation.

Modifications/Amendments

110. Pursuant to Section 20.6.2.3107.C NMAC, Tyrone shall notify NMED of any changes to its wastewater collection or disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to its mining operations or processes that would result in any significant change in the discharge of water contaminants. Tyrone shall obtain NMED approval, as a modification to this Supplemental Discharge Permit pursuant to Sections 20.6.2.3109.E, F, or G NMAC, prior to any increase in the quantity of leachate discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Supplemental Discharge Permit.

Transfer

111. Pursuant to Section 20.6.2.3111 NMAC, prior to the transfer of any ownership, control, or possession of the Tyrone Mine Facility or any portion thereof, Tyrone shall notify the proposed transferee in writing of the existence of this Supplemental Discharge Permit and include a copy of this Permit with the notice. Tyrone shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee.

Enforcement

112. Any violation of the requirements and conditions of this Supplemental Discharge Permit, including any failure or refusal to allow NMED to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject Tyrone to an enforcement action. Pursuant to the WQA, NMSA 1978, § 74-6-10.A and B, such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, suspending or terminating the Supplemental Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the WQA, NMSA 1978, §§ 74-6-10.C and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA, NMSA 1978, § 74-6-5, the WQCC regulations, or this Supplemental Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. For certain violations specified in the WQA, NMSA 1978, § 74-6-10.2, criminal penalties may also apply.

113. In any action to enforce this Supplemental Discharge Permit, Tyrone waives any objection to the admissibility as evidence of any data generated pursuant to this Supplemental Discharge Permit. Tyrone does not waive any objection relating to the truth or accuracy of the data.

Modification

114. Unless otherwise specified in this Supplemental Discharge Permit, all conditions of this permit may be removed or terminated through modification of the Supplemental Discharge Permit pursuant to WQCC Regulations and the WQA.

Compliance with other Laws

115. Nothing in this Supplemental Discharge Permit shall be construed in any way as relieving Tyrone of its obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders.

Right to Appeal

116. Pursuant to the WQA, NMSA 1978, § 74-6-5.N, Tyrone may file a petition for a hearing before the WQCC on this Supplemental Discharge Permit. Such petition must be made in writing to the WQCC within 30 days after Tyrone receives notice of the Supplemental Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final.

Term

117. Pursuant to the WQA, NMSA 1978, § 74-6-5.H, and Section 20.6.2.3109.H NMAC, this Supplemental Discharge Permit expires five years from issued date. To renew the Supplemental Discharge Permit, Tyrone must submit an application for renewal at least 180 days before the expiration date.

Re-issued this 28th day of June, 2004

Jerry Schoeppner, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Santa Fe, New Mexico