



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

RECEIVED

JUN 10 2016

SURFACE WATER
QUALITY BUREAU

MAY 31 2016

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4353 9021)

Mr. Phil Howard
Chevron Mining, Inc. – Questa Mine
PO Box 469
Questa, NM 87556

Re: Chevron Mining, Inc. – Questa Mine
NPDES Permit No. NM0022306
Final Permit Decision

Dear Mr. Howard:

This package constitutes EPA's final permit decision on the permit modification for the above referenced facility. Enclosed are the responses to comments received during the public comment period and replacement pages for the modified permit. According to EPA regulations at 40 CFR124.19, within 30 days after a final permit decision has been issued, any person who filed comments on that draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision.

Should you have any questions regarding the final permit modification, please feel free to contact Isaac Chen of the NPDES Permits & TMDLs Branch at the above address or VOICE:214-665-7364, FAX:214-665-2191, or EMAIL:chen.isaac@epa.gov. Should you have any questions regarding compliance with the conditions of this permit, please contact the Water Enforcement Branch at the above address or VOICE: 214-665-6468.

Sincerely yours,

William K. Honker, P.E.
Director
Water Division

Enclosures

cc (w/enclosures): New Mexico Environment Department

**NPDES PERMIT NO. NM0022306
RESPONSE TO COMMENTS**

RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS LISTED AT 40CFR124.17

APPLICANT:

ISSUING OFFICE: U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY: Isaac Chen
Environmental Engineer
Permits & Technical Section (6WQ-PP)
NPDES Permits Branch
Water Quality Protection Division
VOICE: 214-665-7364
FAX: 214-665-2191
EMAIL: chen.isaac@epa.gov

PERMIT ACTION: Final permit decision and response to comments received on the draft NPDES permit modification publicly noticed on April 30, 2016.

DATE PREPARED: May 26, 2016

Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of May 6, 2016.

CHANGES FROM DRAFT PERMIT

There are changes from the draft permit modification publicly noticed on April 30, 2016. All changes and their rationale for changes can be found in the following response to comments. Changes are listed below:

1. Proposed change in the maximum daily limitation for total arsenic at Outfall 002 to 0.319 mg/l from the 0.665 mg/l in the final permit issued September 30, 2013, was not made.
2. Changed monitoring frequency for total aluminum and total cyanide at Outfall 101 from 1/month to 1/quarter.

Comments Received

New Mexico Department of Game and Fish (DGF) sent a comment email dated May 12, 2016.

Chevron Mining Inc. (CMI, the permittee) sent a comment letter via email dated May 20, 2016.

EPA's Response to Comments

Comment 1: DGF commented that the New Mexico Department of Game and Fish does not anticipate adverse effects to wildlife or habitats from implementation of the NPDES Permit for Questa Mine.

EPA's Response: Comment noted.

Comment 2: CMI commented that CMI supports the new virtual Outfall 101 combined load limits, and the proposed change is consistent with the New Mexico Environment Department's (NMED) revised 401 certification.

EPA's Response: Comment noted.

Comment 3: CMI commented that that the draft permit proposal to decrease the daily maximum total arsenic concentration limit for Outfall 002 from 0.665 mg/L to 0.310 mg/L is in error as it was not addressed in the NMED revised certification of the permit that was the basis for the modification and was not consistent with the Fact Sheet for the proposed modification.

EPA's Response: EPA concurs. The 0.665 mg/l limit in the 2013 final permit was based on acute aquatic life standard and should be retained in the permit modification without change. The error is corrected in the final permit.

Comment 4: CMI commented that the monitoring frequencies for total aluminum and total cyanide for load at the virtual Outfall 101 are not consistent with the monitoring frequencies for those parameters for Outfall 002. Monitoring for those parameters is not required for Outfall 001. Specifically, the draft permit requires that monitoring for total aluminum and total cyanide for the virtual Outfall 101 is once per month, while the monitoring for those parameters for Outfall 002 is once per quarter. The Fact Sheet does not identify a basis for the differences in monitoring frequencies. CMI requests the monitoring frequencies for total aluminum and total cyanide at Outfall 101 be changed to 1/quarter.

EPA's Response: EPA agrees that the monitoring frequency for total aluminum and for total cyanide at the new virtual outfall 101 shall be consistent with the monitoring frequency established at Outfall 002. Final permit has the monitoring frequency of 1/quarter for aluminum and cyanide.



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No. **NM0022306**

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Chevron Mining Inc. – Questa Mine
P.O. Box 469
Questa, NM 87556

is authorized to discharge from a facility located near Questa in Taos County, to the receiving water named

Red River, Waterbody Segment Code No. 20.6.4.122 of the Rio Grande Basin

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof. [ONLY PART I OF THE PERMIT IS PROVIDED FOR REVIEW AND COMMENT.]


This permit modification supersedes and replaces Part I, Section A of the NPDES Permit No. NM0022306 issued on September 30, 2013.


This permit shall become effective on July 1, 2016

This permit and the authorization to discharge shall expire at midnight, October 31, 2018.

Issued on MAY 31 2016

Prepared by


William K. Honker, P.E.
Director
Water Division (6WQ)


Isaac Chen
Environmental Engineer
Permitting Section (6WQ-PP)

PART I
REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 002

During the period beginning the effective date and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 002 – collected seepage from tailings facility.

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|---------------|--------------------------|---------------|-------------------------|------------------|
| | CONCENTRATION | | LOADING | | FREQUENCY | SAMPLE TYPE |
| | (mg/L, unless stated) | | (Lbs/day, unless stated) | | | |
| | MONTHLY AVERAGE | DAILY MAXIMUM | MONTHLY AVERAGE | DAILY MAXIMUM | | |
| Flow (MGD) | *** | *** | Report | Report | Continuous | Record |
| Total Manganese | 1.0 | 1.5 | (**) | (**) | 1/month | 24-hr. composite |
| Fluoride | 3.0 | 3.0 | 16.1 | 16.1 | 1/month | 24-hr. composite |
| Total Suspended Solids | 20 | 30 | 107.6 | 161.4 | 1/month | 24-hr. composite |
| Total Arsenic | 0.207 | 0.665 | (**) | (**) | 1/month | 24-hr. composite |
| Total Cadmium | 1.19 µg/l | 1.79 µg/l | (**) | (**) | 1/month | 24-hr. composite |
| Total Copper | 0.029 | 0.044 | (**) | (**) | 1/month | 24-hr. composite |
| Total Lead | 0.057 | 0.086 | (**) | (**) | 1/month | 24-hr. composite |
| Total Mercury | 1 µg/l | 2 µg/l | (**) | (**) | 1/month | 24-hr. composite |
| Total Molybdenum | 3.30 | 5.03 | (**) | (**) | 1/month | 24-hr. composite |
| Total Zinc | 0.485 | 0.640 | (**) | (**) | 1/month | 24-hr. composite |
| Total Aluminum | Report | Report | (**) | (**) | 1/quarter | 24-hr. composite |
| Total Cyanide | Report | Report | (**) | (**) | 1/quarter | 24-hr. composite |
| Dissolved Uranium | Report | Report | Report | Report | 1/year | 24-hr. composite |

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|--|----------------------|---------------|-------------------------|-----------------|
| WHOLE EFFLUENT TOXICITY TESTING (7-day Static Renewal) | MONTHLY AVG MINIMUM | 7-DAY MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Ceriodaphnia dubia | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note:

(**) See combined loading limitations for OUTFALL 101 on page 7 of Part I, below.

(*1) The frequency for the first year (12 months) is 1/3 months. If all tests pass, the frequencies for year 2 to 5 are 1/6 months for *Ceriodaphnia dubia* and 1/year for *Pimephales promelas*. If fails any test, frequency returns to 1/3 months for remainder of the permit term.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the final Outfall 002. The quarterly WET testing sample must be collected during the milling operation period if milling operations take place in that quarter.

Monitoring reduction associated with Compliance Schedule specified in Part I.B. of this permit: All monitoring requirements at Outfall 002 could be reduced to 1/6 months and WET tests could be reduced to 1/year after CMI demonstrates that: 1) CMI ceases conveying all waste streams to tailings facility; 2) discharges at Outfall 002 after cessation of water conveyance to the tailings facility are in compliance with effluent limitations and pass WET tests; and 3) the maximum discharge flow at Outfall 002 is below and not expected to exceed 0.645 MGD for the rest of the permit term.

OUTFALLS 004 and 005

During the period beginning the effective date and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfalls 004 and 005 – storm water.

Such discharges shall be limited and monitored by the permittee as specified below:

| <u>EFFLUENT CHARACTERISTIC REQUIREMENTS</u> | <u>DISCHARGE LIMITATIONS</u> | | | | <u>MONITORING</u> | |
|---|--|------------------|-------------------------------------|------------------|-------------------|-----------------|
| | CONCENTRATION (mg/L, unless stated) | | LOADING (Lbs/day, unless stated) | | FREQUENCY | SAMPLE TYPE |
| | MONTHLY AVERAGE | DAILY MAXIMUM | MONTHLY AVERAGE | DAILY MAXIMUM | | |
| Flow (MGD) | *** | *** | Report | Report | 1/day | Measure by Weir |
| Chemical Oxygen Demand | 125 | 125 | --- | --- | 1/day | Grab |
| Total Suspended Solids | 20 | 30 | --- | --- | 1/day | Grab |
| Total Zinc | 0.2 | 0.2 | --- | --- | 1/day | Grab |
| Total Arsenic | 0.665 | 0.665 | --- | --- | 1/day | Grab |
| Total Cadmium | 1.78 µg/l | 1.78 µg/l | --- | --- | 1/day | Grab |
| Total Copper | 0.044 | 0.044 | --- | --- | 1/day | Grab |
| Total Lead | 0.403 | 0.403 | --- | --- | 1/day | Grab |
| Total Mercury | 1.4 µg/l | 1.4 µg/l | --- | --- | 1/day | Grab |
| Total Aluminum | 3.87 | 3.87 | --- | --- | 1/day | Grab |
| Total Silver | 0.012 | 0.012 | --- | --- | 1/day | Grab |
| Total Chlordane | 2.4 µg/l | 2.4 µg/l | --- | --- | 1/day | Grab |
| Total Residual Chlorine | 0.019 | 0.019 | --- | --- | 1/day | Grab |

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|---|------------------------|------------------|--------------------------|-----------------|
| WHOLE EFFLUENT TOXICITY TESTING (48 Hr. Static Renewal) | MONTHLY AVG MINIMUM | 48-Hr MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Daphnia pulex | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note: (*1) When discharging. See Part II.G.

All samples shall be collected at the outfall where overflows leave the catch basin whenever a discharge occurs.

NEW OUTFALL 001

During the period beginning the start-up of Outfall 001 (no later than October 1, 2016) and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 – treated mills wastewater, mine drainage, storm water, captured groundwater and other sources of wastewaters.

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|-----------|-------------------------|---------|-------------------------|------------------|
| | CONCENTRATION | | LOADING | | FREQUENCY | SAMPLE TYPE |
| | (mg/l, unless stated) | | (lb/day, unless stated) | | | |
| | MONTHLY | DAILY | MONTHLY | DAILY | | |
| | AVERAGE | MAXIMUM | AVERAGE | MAXIMUM | | |
| Flow (MGD) | --- | --- | Report | Report | Continuous | Record |
| Total Suspended Solids | 20 | 30 | 769 | 1153 | 1/month | 24-hr. composite |
| Total Arsenic | 0.101 | 0.362 | (**) | (**) | 1/ month | 24-hr. composite |
| Total Cadmium | 0.6 µg/l | 0.9 µg/l | (**) | (**) | 1/ month | 24-hr. composite |
| Total Copper | 0.029 | 0.044 | (**) | (**) | 1/ month | 24-hr. composite |
| Total Lead | 0.016 | 0.024 | (**) | (**) | 1/ month | 24-hr. composite |
| Total Mercury | 0.84 µg/l | 1.26 µg/l | (**) | (**) | 1/ month | 24-hr. composite |
| Total Zinc | 0.484 | 0.640 | (**) | (**) | 1/ month | 24-hr. composite |
| Total Molybdenum | 1.238 | 1.857 | (**) | (**) | 1/ month | 24-hr. composite |

Note:

(**) See combined loading limitations for OUTFALL 101 on page 7 of Part I, below.

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|--|----------------------|---------------|-------------------------|-----------------|
| | MONTHLY AVG MINIMUM | 7-DAY MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| WHOLE EFFLUENT TOXICITY TESTING (7-day Static Renewal) | | | | |
| Ceriodaphnia dubia | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note: (*1) The frequency for the first year (12 months) is 1/3 months. If all tests pass, the frequency for year 2 to 5 reduces to 1/6 months for Ceriodaphnia dubia and 1/year for Pimephales promelas. If fails any test, frequency returns to 1/3 months for remainder of the permit term. Also see Part II.F.

Sampling Location

Samples shall be taken at Outfall 001, a point after the last Equalizer Tank but before reach the Red River.

OUTFALL 101

During the period beginning the start-up of Outfall 001 (no later than October 1, 2016) and lasting through the expiration date of the permit, the permittee is authorized to discharge from New Outfall 001 and Outfall 002, as described above.

Such discharges shall be limited and monitored by the permittee with the combined loading limits as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|------------------|-------------------------|------------------|-------------------------|---------------------|
| | CONCENTRATION | | LOADING | | FREQUENCY (**) | SAMPLE TYPE (**) |
| | (mg/l, unless stated) | | (lb/day, unless stated) | | | |
| | MONTHLY AVERAGE | DAILY MAXIMUM | MONTHLY AVERAGE | DAILY MAXIMUM | | |
| Total Manganese | --- | --- | 8.97 | 13.45 | 1/ month | 24-hr. composite |
| Total Arsenic | --- | --- | 1.66 | 6.27 | 1/ month | 24-hr. composite |
| Total Cadmium | --- | --- | 0.0162 | 0.0298 | 1/ month | 24-hr. composite |
| Total Copper | --- | --- | 0.673 | 1.009 | 1/ month | 24-hr. composite |
| Total Lead | --- | --- | 0.609 | 0.914 | 1/ month | 24-hr. composite |
| Total Mercury | --- | --- | 0.00649 | 0.0119 | 1/ month | 24-hr. |
| | | | | composite | | |
| Total Molybdenum | --- | --- | 39.28 | 59.42 | 1/ month | 24-hr. composite |
| Total Zinc | --- | --- | 8.604 | 10.532 | 1/ month | 24-hr. composite |
| Total Aluminum | --- | --- | 1.28 | 5.80 | 1/ quarter | 24-hr. composite |
| Total Cyanide | --- | --- | 0.0429 | 0.0640 | 1/ quarter | 24-hr. composite |

Note: (**) Report combined results from samples collected at Outfall 002 and at New Outfall 001.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

SEP 30 2013

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7012 3050 0001 6504 5472)

Mr. Phil Howard
Chevron Mining, Inc. – Questa Mine
PO Box 469
Questa, NM 87556

Re: Chevron Mining, Inc. – Questa Mine
NPDES Permit No. NM0022306
Final Permit Decision

Dear Mr. Howard:

This package constitutes EPA's final permit decision for the above referenced facility. Enclosed are the responses to comments received during the public comment period and the final permit. According to EPA regulations at 40 CFR124.19, within 30 days after a final permit decision has been issued, any person who filed comments on that draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision.

Should you have any questions regarding the final permit, please feel free to contact Isaac Chen of the NPDES Permits Branch at the above address or VOICE:214-665-7364, FAX:214-665-2191, or EMAIL:chen.isaac@epa.gov. Should you have any questions regarding compliance with the conditions of this permit, please contact the Water Enforcement Branch at the above address or VOICE:214-665-6468.

Sincerely yours,

A handwritten signature in black ink, appearing to read "WK Honker".

William K. Honker, P.E.
Director
Water Quality Protection Division

Enclosures

cc (w/enclosures):

New Mexico Environment Department

NPDES PERMIT NO. NM0022306
RESPONSE TO COMMENTS

RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS LISTED AT 40CFR124.17

APPLICANT:

ISSUING OFFICE: U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY: Isaac Chen
Environmental Engineer
Permits & Technical Section (6WQ-PP)
NPDES Permits Branch
Water Quality Protection Division
VOICE: 214-665-7364
FAX: 214-665-2191
EMAIL: chen.isaac@epa.gov

PERMIT ACTION: Final permit decision and response to comments received on the draft
reissued NPDES permit publicly noticed on June 29, 2013.

DATE PREPARED: September 30, 2013

Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of
Federal Regulations, revised as of July 1, 2013.

CHANGES FROM DRAFT PERMIT

There are changes from the draft reissued permit publicly noticed on June 29, 2013. All changes and their rationale for changes can be found in the following response to conditions of certification and response to comments. Some significant changes are listed below:

1. Incorporate effluent loading limits of aluminum, copper, cyanide, mercury, molybdenum, and zinc from the 2006 expired permit into Outfall 002 in the final permit pursuant to State Certification;
2. Delete the less stringent mercury concentration limits from Outfall 002;
3. Add monitoring requirement for dissolved uranium at Outfall 002 pursuant to State Certification;
4. Add "effluent characteristic analysis" requirements for Outfalls 004 and 005 pursuant to State Certification;
5. Add monitoring for dissolved antimony to "effluent characteristic analysis" for Outfalls 001, 004 and 005;
6. Add the Whole Effluent Toxicity (WET) testing requirements for Outfalls 004 and 005 pursuant to State Certification;
7. Add the Red River visual inspection and Tailings Spill Monitoring requirements from the 2006 expired permit to the final permit pursuant to State Certification;
8. Replace proposed effluent concentration limitations for molybdenum with the Best Professional Judgment (BPJ)-based limits from the 2006 expired permit for Outfall 002;
9. Change the daily maximum concentration limit for total arsenic to 0.665 mg/l for Outfall 002 based on the applicable acute aquatic life standard;
10. Change the critical dilution for new Outfall 001 from 70% to 54%, and for Outfall 002 from 15% to 13%; and
11. Recalculate water quality-based effluent limitations for new Outfall 001 based on new projected flow and add limits for molybdenum. The new limits are shown below:

| Parameter | Daily Max / Monthly Avg (mg/l) | Daily Max / Monthly Avg (pounds per day) |
|------------|--------------------------------|--|
| Arsenic | 0.362 / 0.101 | 6.81 / 1.90 |
| Cadmium | 0.00090 / 0.00060 | 0.017 / 0.011 |
| Copper | 0.044 / 0.029 | 0.829 / 0.553 |
| Lead | 0.024 / 0.016 | 0.451 / 0.301 |
| Mercury | 0.00126 / 0.00084 | 0.024 / 0.016 |
| Zinc | 0.640 / 0.484 | 12.036 / 8.024 |
| Molybdenum | 1.857 / 1.238 | 34.92 / 23.28 |

State Certification

State certification letter from Mr. James Hogan (NMED) to Mr. William Honker (EPA), dated September 12, 2013, conditionally certifies that the discharge will comply with the applicable provisions of the Clean Water Act and with appropriate requirements of State law. NMED also includes comments in the certification letter.

Note: Inclusion of permit requirements to comply with conditions of certification are required by 40 CFR § 124.55(a)(2). Challenges to conditions of certification must be made through NMED. If

conditions of certification would result in less stringent permit conditions, EPA treated those conditions as a statement of the extent to which the permit could be made less stringent (see 40 CFR §124.53(e)(3) and §124.55(c)).

Conditions of State Certification

Condition #1 (Outfall 002, Collected Seepage from Tailings Facility, No Increase in Loading): NMED stated that "Effluent limitations for Outfall 002 in the existing permit effective October 1, 2006 (2006 Permit) depended upon commencement of discharges from "old" Outfall 001. Since discharges from the "old" Outfall 001 are not authorized under this permit action, it is NMED's understanding that the final loading limitations on Pages 5 and 6 of Part I of the 2006 Permit for aluminum, arsenic, cadmium, copper, cyanide, fluoride, lead, manganese, mercury, molybdenum and zinc are in effect (see Footnote #2 on Page 8 of Part I of the 2006 Permit).... Monthly average and daily maximum loading quantities in effect for Outfall 002 in Part I.A of the 2006 Permit for aluminum, arsenic, cadmium, copper, cyanide, fluoride, lead, manganese, mercury, molybdenum, and zinc must not increase in the Final Permit per State WQS 20.6.4.8.A(1) and (2) NMAC (Antidegradation Policy).... In addition, in order to meet this condition of certification, USEPA Region 6 must verify that the correct cyanide loading limitations from the 2006 Permit is not increased in the Final Permit."

Response: In accordance with conditions of State certification, monthly average and daily maximum loading quantities in effect for Outfall 002 in Part I.A of the 2006 Permit for aluminum, copper, mercury, molybdenum, and zinc are incorporated into the final permit, because those loading limits are more stringent than the proposed permit. Loading limits for cyanide from the 2006 permit are also added to the final permit. Effluent concentration limits and/or report requirements remain based on EPA proposed values because they were developed based on the most recently EPA approved NM WQS and they were not addressed in the conditions of certification.

Condition #2 (Outfall 002, Correct Mercury Monitoring/Limitations): NMED stated that "For Segment 20.6.4.122 NMAC, the applicable most limiting numeric criteria in State WQS 20.6.4.900 NMAC are as follows:

Total Mercury Wildlife Habitat 0.77 µg/L

Dissolved Mercury Chronic Aquatic Life Criteria 0.77 µg/L

Two sets of mercury effluent limitation requirements were incorrectly identified in the Draft Permit. Only one set of effluent limitations to protect the most stringent applicable State WQS needs to be in the Final Permit. USEPA will need to verify that a correct set of limitation requirements for Outfall 002 are in the Final Permit based on equations for calculating effluent limits for discharges to perennial streams consistent with the NMIP."

Response: Two sets of mercury limitations were shown in the proposed permit-one was technology-based limits and the other water quality-based. EPA has determined that the technology-based limits are more stringent than the water quality-based limits, so the monthly average of 1 µg/l and daily maximum of 2 µg/l apply. Loading limits will be based on the 2006 permit as stated in Condition #1.

Condition #3 (Outfall 002 Uranium): NMED cited CERCLA's Record of Decision (ROD), Page 2-138 "...after concerns were expressed by the community and the Village of Questa, EPA and NMED agreed to include analysis for uranium in water samples collected from residential taps, private wells, monitoring wells, and the NPDES-permitted Outfall 002 at the tailing facility." NMED further stated

that "Dissolved uranium numeric criteria of 30 micrograms per Liter ($\mu\text{g/L}$) in State WQS 20.6.4.900 NMAC is applicable to Domestic Water Supply (DWS). DWS is not a designated use in the Red River receiving water (State WQS Segment 20.6.4.122 NMAC). Human Health Standards for groundwater of 10,000 mg/l TDS concentration or less in 20.6.2.3103 NMAC does include uranium....NMED believes that ... to monitor uranium at Outfall 002 must be included in Part I.A of the Final Permit. USEPA may include a monitoring frequency in the Final Permit consistent with NPDES regulations and the NMIP. NPDES regulations in 40 CFR §122.44(i)(2) states "*...requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.*" NMED requests that any case by case reasons for reducing the frequency in NMIP Table 10 be documented in the Response to Comments for the Final Permit."

Response: It is not clear whether this condition of certification meets the requirements of 40 CFR 124.53(e)(2). EPA notes that this condition of certification recognizes that the Public Water Supply (PWS) uranium surface water quality standard does not apply to the Red River and did not include a requirement to add an effluent limitation at this time. Since this condition referenced a groundwater Human Health Standard for Uranium, the EPA interprets the regulatory basis for requiring monitoring to rest on protection of the groundwater standard. Regarding a minimum monitoring frequency, EPA notes that 40 CFR §122.44(i)(2) actually applies to the minimum frequency for reporting whatever data is collected for compliance with a permit limit at least once per year, used where a limit is included in the permit. However, consistent with the statement in the ROD and the concerns raised by NMED, the final permit establishes a dissolved uranium monitoring frequency of once per year. This frequency was established in considerations of: (1) when the EPA and NMED reached the agreement about monitoring of uranium for the ROD, EPA had not proposed the current plan to cease waste flows to the tailings facility by October 2106 -- which is expected to reduce and then eliminate discharges from outfall 002 and losses to groundwater from within the tailings facility; and (2) the CERCLA action includes ongoing groundwater monitoring efforts that would be a more direct measure of impacts on groundwater quality.

Condition #4 (Outfall 001, Effluent Characteristic Analysis, Increased Reporting): NMED stated that "Analytical results for Outfall 001 must be obtained from the first discharge and reported as soon as practicable with a re-opener clause in the Final Permit to ensure that pollutant concentrations in discharges from Outfall 001 are protective of designated uses in State WQS Segment 20.6.4.122 NMAC and applicable numeric criteria in 20.6.4.900 NMAC." NMED also stated that "*'All analytical results shall be reported with next permit application renewal or upon EPA's request'* must be replaced with more frequent reporting requirements, and must be no less than once a year per 40 CFR §122.44(i)(2)."

Response: The EPA's response to this condition addresses the three main issues raised separately, highlights where the condition does not appear to meet the requirements of 40 CFR §124.53(e)(2) and would therefore need to be considered a comment rather than a condition, and details where changes are made in response to the concerns raised by NMED.

(1) *Requiring monitoring of the "first" discharge:* Samples from the very first discharge are not likely to be representative. Outfall 001 is a newly assigned outfall from a facility yet to be built and the permit has already established, based on likely-hood of presence in the discharge, limits for 14 parameters of concern, including 12 metals, that apply upon commencement of discharge. The enhanced "new discharge" monitoring requirement in Part I.D of the permit would provide information on the presence or absence, and levels, of other pollutants for use in reasonable potential analysis that could be used either in reissuance or reopening of the permit. It is reasonable for a new treatment to allow a start-up

period to stabilize the process and the quality of the discharge during the start-up period will likely be fluctuating. A "first discharge" sample taken during the initial start-up process could occur without normal influent loadings from milling operations, may be affected by process controls still being adjusted and stabilized, and therefore may not be representative of normal discharge characteristics. EPA recognizes that initial discharge results could be either artificially high or low, but believes that decisions on whether additional limitations are necessary should be based on more representative data. To accommodate NMED's desire for earlier data on the quality of new Outfall 001 effluent, the final permit has been modified to require the first Part I.D sampling be done within the 30 days of first commencing discharge after the final compliance schedule. This requirement would be consistent with the monthly compliance monitoring requirement for new Outfall 001.

(2) *Monitoring frequency and reporting of results of new discharge analytical monitoring required by Part I.D:* With regard to requiring a particular monitoring frequency or annual reporting of results not tied to a permit limitation, it is not clear whether this condition of certification meets the requirements of 40 CFR §124.53(e)(2). Reporting requirements set forth in 40 CFR §122.44(i)(2) only apply to monitoring for permit limit compliance purpose (as opposed to information gathering). The Part I.D. Effluent Characteristic Analysis for New Discharges at Outfall 001 is included to collect representative effluent data so EPA may use those data for RP screening - not for effluent limitation compliance purposes, so 40 CFR §122.44(i)(2) does not apply. The permit has already established, based on likelihood of presence in the discharge and information presented in the application, limits for 14 parameters of concern, including 12 metals, that apply upon commencement of discharge. The annual monitoring requirement established in Part I.D already collects more than the minimum samples required for a permit application for industrial dischargers at 40 CFR 122.21(g) and the condition does not point to a statutory or regulatory basis for requiring more frequent monitoring. The EPA interprets the justification for this condition to be based on the need for information to determine whether or not there is reasonable potential that actual discharges from the new outfall 001 will cause or contribute to exceedance of surface water quality standards in the Red River as soon as practicable. To accommodate NMED's desire for earlier access to monitoring data on the new Outfall 001 effluent, the last sentence of Part I.D in final permit has been changed to also allow NMED to request data prior to the renewal application.

(3) *Reopener Clause:* The permit already included a reopener clause at Part II.C which states, in part, that "[t]he permit may also be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance." No change to the permit was necessary regarding this element of the condition for certification.

Condition #5 (Outfall 004 and 005 Effluent Characteristic Analysis and Human Health Analysis): NMED stated that "Effluent characteristic analysis of the first discharge from Outfalls 004 and 005 must be included in the Final Permit to ensure that pollutant concentrations in discharges from Outfalls 004 and 005 are protective of designated uses in State WQS Segment 20.6.4.122 NMAC and applicable criteria in 20.6.4.900 NMAC." NMED has provided a list of constituents to be tested in the State 401 Certification letter.

Response: As conditioned by NMED, the final permit includes "Effluent Characteristic Analysis" for Outfalls 004 and 005. To accommodate NMED's desire for earlier access to monitoring data on the new Outfall 001 effluent, the last sentence of Part I.D in the final permit has been changed to also allow NMED to request data prior to the renewal application.

Condition #6 (Outfalls 001, 004 and 005, Effluent Characteristic Analysis Monitoring, Add Antimony): NMED stated that “dissolved antimony must be added to the list of pollutants (Part I.D of the Draft Permit) in the Final Permit...”

Response: Monitoring for dissolved antimony is added to the “Effluent Characteristic Analysis” list.

Condition #7 (Add WET testing for Outfalls 004 and 005): NMED stated that “Whole Effluent Toxicity (WET) monitoring requirements must be added for Outfalls 004 and 005 in Part I.A of the Final Permit to protect the designated aquatic life use in State WQS Segment 20.6.4.122 NMAC.”

Response: WET monitoring requirements are added to the final permit.

Condition #8 (Include Conditions from 2006 Permit): NMED stated that “...for the Final Permit, Tailings Spill Monitoring Requirements in the 2006 Permit must be included...;” “All spring related conditions in Part I.B (prohibited discharges) and Part II.A (operation of best management practices (BMPs) including visual inspections and reporting requirements) of the 2006 Permit must be included in the Final Permit...;” and “The following reopener clause conditions that were previously approved by USEPA in Part II.G of the 2006 Permit, related to the spring interception system in Part I.B and Part II.A, must be added to the Reopener Clause conditions of the Final Permit:
Should monitoring required under Part II.A of this permit show that the seepage interception system is In effective or find seepage traceable to point source mine operations, this permit may be modified or revoked and reissued to address those discharges.”

Response: Conditions stated above are added to the final permit.

NMED's Comments Not Conditions of Certification

NMED Comment #1 (Outfall Locations Latitude/Longitude): NMED requested that EPA add outfall locations in the final permit.

Response: Outfall coordinates are added to the final permit. Because new Outfall 001 has not been constructed, the specific Outfall 001 location cannot be added at this time. According to the application, new Outfall 001 will be located in the southeast quadrant of the mine site in a generally know area and discharge to the Red River. Since this area would fall within the same segment of the Red River, the exact location was not necessary in order to determine appropriate permit conditions. The exact Outfall 001 location can be included at a later date.

NMED Comment #2 (Outfalls 004 and 005 Clarification on Authorized Discharge): NMED requests that the authorized discharge from Outfalls 004 and 005 be clarified because the draft permit describes it as “storm water” and the 2006 Permit described it as “mine drainage consisting only of mine contacted surface storm water runoff.”

Response: The description in the 2006 Permit might not be valid because CMI has ceased surface mining since 1983. No change is necessary.

NMED Comment #3 (Effluent Characteristic Analysis Monitoring): NMED commented that because sampling for Outfalls 004 and 005 are required by State Conditions #4 and #5, EPA may want to

incorporate the reporting requirements into the Discharge Monitoring Reports (DMRs). NMED also included comments such as typos, monitoring requirements for certain constituents are not conditions of State Certification, and etc..

Response: As stated in the draft permit, EPA wants the Effluent Characteristic Analysis monitoring results to be submitted as a complete report with CMI's permit renewal application, but reserves the ability to request the information. As stated in the Response to Condition #4, the final permit will also allow NMED to request this data prior to reapplication. Since this monitoring is likely to result in a substantial number of parameters being "non detect", EPA declines to require reporting via DMRs to avoid unnecessary administrative costs and cluttering of the ICIS data system. EPA prefers to reserve DMR reporting for compliance monitoring and know pollutants of concern. Other comments are noted and typos are corrected.

NMED Comment #4 (Permit Part I.D.): NMED requested USEPA change the wording in the Final Permit to "EFFLUENT CHARACTERISTIC ANALYSIS FOR NEW OUTFALL 001."

Response: Outfall 001 is added to the subtitle of Part I.D. to distinguish the similar sampling requirements for Outfalls 004 and 005.

NMED Comment #5 (Reopener Clause): NMED suggested modifying the reopener clause to read as *"New information includes results obtained from effluent characteristic analysis monitoring of this permit. The permit may be modified or revoked if monitoring demonstrates a potential to exceed State of New Mexico Water Quality Standards for the protection of applicable designated use numeric criteria."*

Response: Comment noted. EPA interprets the existing "new information" language in the reopener clause to be broad enough to encompass the situations covered by NMED's suggestion and no change is necessary.

NMED Comment #6 (NPDES Compliance Schedule and CERCLA Actions): NMED requested USEPA Region 6 in their Response to Comments of the Final Permit confirm NMED's understanding that remedial actions for the Tailings Facility will meet applicable or relevant and appropriate requirement (ARAR) requirements and be protective of current State WQS promulgated in 20.6.4 NMAC.

Response: EPA confirms that the CERCLA Program will ensure that remedial actions will meet the ARAR requirements and conditions included in the permit are protective of the current State water quality standards.

NMED Comment #7 (CMIs Comments): NMED stated that "NMED has reviewed comments made to USEPA Region 6 during the public comment period which include requests for clarifications, additional effluent data for Outfall 002 and revised calculations for effluent limitations from CMI.... NMED SWQB requested that USEPA provide the final calculations used to determine effluent limitations in the Final Permit in their Response to Comments. NMED will review any changes of the Draft Permit in the Final Permit to determine if modification (revision or addition) to this State conditional certification are warranted consistent with 40 CFR 124.53 and State WQS."

Response: For this permit, EPA has extended the period by 30 days after the end of public comment period for NMED to provide the State Certification letter. Since NMED has reviewed CMI's comments and justifications for change of effluent limitations, NMED could verify whether CMI recommended

effluent limitations are consistent with State WQS or State 401 Certification conditions or not and provide NMED's comments and concerns to EPA with NMED's State Certification letter. EPA is not seeking for re-certification for issuance of the final permit. Because NMED has made Condition #1 to prohibit any relaxation of effluent loading limits at Outfall 002, even if there are any changes of effluent concentrations, no change is made less stringent of loading limits as conditioned by NMED. Please see EPA's responses to CMI's comments (Comments # 50-56) for justifications for applicable changes. A recalculation is not required to make changes of concentrations for Outfall 002.

Comments Received From Other Entities

Seven (7) Comments were received at the Public Hearing held at Questa VFW Post 7866, Questa, NM, on July 31, 2013.

Three (3) entities, Village of Questa, Taos Pueblo, and Amigos Bravos sent their comment letters, respectively, to Ms. Diane Smith (EPA) dated August 13, 2013.

One (1) individual sent a comment letter dated August 5, 2013, and Fifty-six (56) individuals sent their comments via email on various dates between July 29, 2013, and August 19, 2013.

Chevron Mining Inc. (the permittee) sent a comment letter to Ms. Diane Smith dated August 13, 2013.

EPA's Response to Comments Received at Public Hearing

Comments #1 through #13 were provided by participants at the public hearing held at Questa VFW Post 7866, Questa, NM, on July 31, 2013.

Comment #1: Ms. Theresa Sandoval requested Chevron Mining Inc. (CMI) to provide the Village of Questa people water for cooking. (The Village people have believed that seepage from CMI has contaminated their wells.)

Response: Comment noted, but outside the scope of authority of the NPDES permitting program. This request is being forwarded to CMI and the NMED drinking water program. CMI is encouraged to work out the request with the people in the Village of Questa.

Comment #2: Mr. Moises Rael stated that in his observation last summer, the water from Red River might kill "pond scum"- a kind of algae.

Response: Comment noted. No direct evidence that the observed effects were attributable to discharges regulated under the NPDES permit in question was provided. The permit has been written so that authorized discharges are not expected to cause or contribute to the exceedance of water quality standards in the Red River. EPA has referred this comment to NMED for stream water quality assessment.

Comment #3: Mr. Marcus Rael, Jr. commented that "The Village of Questa in general supports the draft permit in that it clearly is written to accommodate a major change in mine operations and water management that we have long advocated."

Response: Comment noted.

Comment #4: Mr. Marcus Rael, Jr. questioned how the permit address potential discharges of treated water at the facility should that be necessary if the current Outfall 001 is eliminated.

Response: Once the tailings facility stop receiving wastewaters from mine activities as proposed, the volume of seepage, the amount of pollutants, and the volume of pump back of collected seepage are expected to be reduced significantly while the tailings facility is being decommissioned and remediated under the CERCLA action. This permit does not prohibit the facility to pump back portion of collected seep water from the tailings facility. Whether to pump the collected seep water back to the tailings facility or transport it to a new treatment plant is under the purview of the Superfund Program. Per CMI staff, the CMI has operated the treatment facility next to the tailings facility for only a short period of time and could not meet the permit conditions; therefore CMI decided to remove Outfall 001 from the permit. If CMI decides that it needs to resume the operation of that treatment facility and previous Outfall 001, CMI may request a permit modification to add that outfall back to the permit.

Comment #5: Mr. Marcus Rael, Jr. stated that the Village disagrees with a statement in the fact sheet that the upgrades to be constructed under the ROD (Record of Decision) will "...capture most or all of the seepage from the tailing facility..." The Village will closely monitor the studies being done under the ROD.

Response: The fact sheet simply provided a brief overview of what EPA's Superfund Program has been working on related to the seepage issue. As the Village has understood, EPA has determined to defer the seepage issue to the CERCLA process. Cessation of water being sent from the mine site to the tailings facility will leave only water already there, plus precipitation falling into the tailings facility, so no new mining-related pollutants would be added to the tailings facility.

Comment #6: Mr. Marcus Rael, Jr. requested EPA to clarify the justification for increasing the permit limit on molybdenum at Outfall 002 by approximately 60% from monthly average 3300 mg/l to 5280 mg/l.

Response: First, EPA believes the units mentioned in the comment were incorrect: mg/l should be µg/l and is proceeding with the response on that assumption (3300 µg/l would be 3.3 mg/l and 5280 µg/l would be 5.28 mg/l).

EPA's fact sheet dated May 17, 2000, stated "At Outfall 002 Molycorp has requested... molybdenum limits of 3.3 mg/l for a monthly average and 5.03 mg/l for a daily maximum. Analysis of that request was made based on available effluent data. The requested molybdenum concentration limits appear to be reasonable and are proposed to be included in the permit for Outfall 002." From this record, the effluent limitations for molybdenum in the 2000 expired permit were the Best Professional Judgment (BPJ)-based limitations. When EPA reissued the permit in 2006, EPA retained both concentration and loading limits in the permit even the discharge flow increased from 0.35 million-gallons-per-day (MGD) to 0.645 MGD. Because those BPJ-based limitations are more stringent than the proposed water quality-based limitations, EPA will retain the previous BPJ-based limitations in the permit pursuant to the anti-backsliding policy. See also EPA's response to NMED Condition #1.

Comment #7: Mr. Marcus Rael, Jr. commented that there are two "Total Mercury" limits listed for Outfall 002 and two items were labeled (*3) and (*4) in the footnotes but not shown on the effluent limitation Table.

Response: Typos are removed and the most stringent technology-based limitations for Total Mercury remain in the permit. Labels (*1) and (*2) in the footnote are removed and (*3) and (*4) are corrected to be read as (*1) and (*2).

Comment #8: Mr. Marcus Rael, Jr. questioned the justification for eliminating in the 2013 proposed permit the monthly visual inspections of seepage areas and reporting requirements established in the 2006 permit.

Response: Flow data reported by CMI have not identified a significant increase in seepage flow rates at active seep or spring sites. The average flows reported at each active site are listed as below:

| Avg GPM | Capulin Spring | Goathill Spring | Sulphur Gulch Seep | Portal Spring | Spring 39 | Spring 13 |
|---------|----------------|-----------------|--------------------|---------------|-----------|-----------|
| 2010 | 10.22 | 7 | 0.875 | 1.22 | 4.8 | 1 |
| 2011 | 10.22 | 8.66 | 1 | 1.44 | 4.72 | 1 |
| 2012 | 11.73 | 7.58 | 0.33 | 0.42 | 3.83 | 1 |

Because any significant increase of flow may be a sign of new hydrological connection, EPA will retain the visual inspection requirement from the 2006 permit in the final permit. See also EPA's response to NMED Condition #8.

Comment #9: Mr. Marcus Rael, Jr. questioned why EPA proposed to remove effluent limitations for total aluminum based on one effluent data and recommended continued monitoring, research and periodic review of information to support re-establishment of a TMDL for Red River in terms of new hardness-based total recoverable aluminum criterion.

Response: In determining whether water quality-based effluent limitations are needed for a permit, the EPA takes into consideration whether or not there is an applicable TMDL and independently conducts a reasonable potential (RP) analysis against currently approved water quality standards. NMED changed the aluminum standard effective April 30, 2012, determined withdrawal of the previous TMDL for aluminum was appropriate and did so May 8, 2012. RP analysis was done using the new approved standard. There is no applicable TMDL at this time. CMI reported that the Maximum 30-day concentration for total aluminum was 0.25 mg/l and the long-term average was 0.007 mg/l out of 36 effluent data. EPA has used 0.25 mg/l to conduct another RP screening, and found that the chronic in-stream waste concentration (IWC) was 1.376 mg/l against the applicable chronic aquatic life standard of 1.55 mg/l, and the acute IWC of 1.447 mg/l against acute aquatic life standard of 3.87 mg/l. Effluent data has demonstrated no RP. Determining whether or not the Red River is impaired for aluminum and whether or not a new TMDL would then be needed is outside the scope of this permitting action.

Comment #10: Mr. David Rael commented that (A) the facility has been in lack of compliance, (B) EPA needs to monitor the compliance, and (C) the new aluminum standards are less stringent than the previous standards.

Response: (A) Mr. Rael did not specify exactly what noncompliance he was referring to, and whether that non-compliance was for NPDES permit violations, so the EPA was unable to determine if the alleged non-compliance would be relevant to the NPDES permitting action. The NPDES program was designed to rely primarily on self-monitoring for compliance purposes. The Clean Water Act (CWA)

authorizes the permitting agencies to establish conditions to assure compliance as stated in the CWA, section 402(a)(2) "the Administrator shall prescribe conditions for such permits to assure compliance with the requirements..., including conditions on data and information collection, reporting, and such other requirements as he deems appropriate." 40 CFR 122.41 also requires the permittee to comply with all conditions of the permit (§122.41(a)), to conduct monitoring and records (§122.41(j)), to submit monitoring reports (§122.41(l)), and to sign and certify all reports (§122.41(k)). All monitoring reports require signature and the following certification: *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."* No changes to the permit were made in response to this comment.

(B) It would not be practicable for EPA to conduct all sampling or monitoring for every permit due to resources, costs, and timing issues. The EPA has no information at this time that would indicate the self monitoring and reporting requirements of the permit are not sufficient to identify non-compliance with permit limitations. During compliance inspections, the EPA or NMED may take independent samples. No permit changes were made in response to this comment.

(C) Comment noted. Development and establishment of state water quality standards by the State of New Mexico are beyond the scope of this permitting action.

Comment #11: Mr. Michael Trevino commented that the community should be publicly addressed with information regarding CMI's proposed paste tailing tickener and filter cake plant. Mr. Trevino also commented that EPA should address the ground seepage loss from the [Tims facility, which EPA assumes refers to the tailings facility] and the residual seepage from the ponds.

Response: Because new facilities have not been built and information regarding the future ground seepage loss from the [tailings facility] and the residual seepage from the ponds is currently unknown and will be investigated by EPA's Superfund Program, comments have been referred to the Superfund Program. Elimination of mine site discharges to the tailings facility is expected to significantly reduce losses to groundwater and thus seepage to the Red River.

Comment #12: Mr. Joe Cisneros requested for a 30-day extension of public comment period.

Response: EPA determined it would not be necessary to extend the comment period based on the following facts: (1) the commenter did not provide specific reasons, e.g., data collection, fact search, etc., to justify the need for time extension, (2) by the original deadline of August 13, 2013, EPA has received comments from more than fifty (50) individuals and entities raising all major issues discussed during the public meeting, and (3) no other requests for an extension were received. No time extension has been granted.

Comment #13: Mr. Richard Rushforth commented that the permit should not be reinstated because of the Superfund thing going on with the CMI.

Response: Although 40 CFR 124.6 allows EPA denying an NPDES application, EPA determined that to reissue the permit with the proposed permit conditions will provide quicker solutions to mitigate seepage problems. In addition, some of the clean-up operations would result in discharges that require authorization under a NPDES permit. Operations at this molybdenum mine located near Questa, New Mexico, initially began in 1918 before the Clean Water Act (CWA) was enacted. By the time the first NPDES permit was issued for the mine, the principal body of water quality law in effect was based on the Federal Water Pollution Control Amendments of 1972 which was a significant expansion of the Federal Water Pollution Control Act of 1948. Major amendments were enacted in the CWA of 1977 and the Water Quality Act of 1987. The NPDES permit authorized by the CWA is an effective mechanism to control the quantity of pollutants being discharged to waters of the United States.

EPA's Response to Comments Provided by Citizens Received by Mails or Emails

Comments 14 through 19 were provided by either individual citizens, representatives of local communities, or environmental groups via mails or emails, and most of comments were received on or before August 13, 2013, and a few were received after the August 13, 2013, deadline. Because those who submitted their comments late have provided same comments as those who did on time, EPA has decided to include their comments in the record. Because most of the comments provided by individuals were addressing the same issues, EPA has consolidated the comments and responses by issues.

Comment #14: Mr. Arno Cordova commented that EPA should not allow CMI to use Red River as a dumping ground for its chemical pollutants and the permit should not be renewed and CMI should provide more monetary aids to the Village of Questa.

Response: Please see EPA's response to Comment #13 regarding the denial of permit. To require the permittee to provide monetary aids is beyond the scope of the NPDES permit.

Comment #15: Dr. Susan Selbin commented that she supported the compliance schedule to stop discharging tailings to the tailings facility by October 1, 2016, and requested to keep this schedule in the final permit.

Response: Comment noted for the record.

Comment #16: Dr. Susan Selbin commented that (A) effluent limits for seven key Contaminants of Concern (COC) are necessary for all outfalls; (B) monthly visual inspection and associated reporting requirements of seepage from waste rock piles must be required in the final permit; and (C) adequate explanation of why the proposed monthly average molybdenum limitation at Outfall 002 is about 3 times less protective than the previous limitation.

Response: (A) As stated in the fact sheet, the basis for the ROD to list those seven "key" Contaminants of Concern (COCs) was the distribution and temporal changes in ground water at the mine site. Seepage from tailings facility has been monitored by EPA's Superfund Program and the State of New Mexico has the authority to regulate groundwater discharges at Questa mine. To establish effluent limitations at Outfall 002 or at other outfalls in a NPDES permit whose authority is limited to surface waters of the United States is not the proper mechanism to protect groundwater. Note that NPDES permit limitations and/or monitoring requirements for most of the contaminants of concern are included for outfall 002, but apply to surface water discharges since that is what is being authorized by this permit. Groundwater investigations are a part of the ongoing CERCLA action. See also EPA's response to NMED Condition #1. (B) Please see EPA's response to Comment #8. (C) Please see EPA's response to Comment #6.

Comment #17: Mr. Keith McHenry commented that he is against the permit renewal.

Response: Please see EPA's response to Comment #13.

Comment #18: Mr. Gary Cascio commented that no discharging any mine tailings ever into New Mexico waters should be allowed.

Response: Comment noted and please also see EPA's response to Comment #13. Note that under current mine operations, mine tailings are discharged into the tailings facility and not directly into the Red River itself.

Comment #19: Mr. Richard Rushforth commented that (A) no permit should be renewed for Superfund site, (B) outflow testing should be performed by a third party, (C) dumping waste water into rivers should be considered criminal activity, (D) a community health testing program should be started immediately, and (E) CMI, NM governor and EPA must be held accountable for thrashing the state water resources.

Response: Comments are noted. (A) Please see EPA's response to Comment #13 regarding the permit denial. (B) 40 CFR 122.41 defines the responsibilities of the permittee and also authorizes the permittee to collect representative samples, perform testing, report and keep records. The subsection §122.41(j) also specifies penalties for any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit. To require a third party, instead of the permittee, to conduct sampling and perform testing may be beyond the authority of the NPDES Program. In any event, the permit requires monitoring to be representative, conducted in accordance with approved methods, and certified by a signatory authority recognizing that significant civil and/or criminal penalties may apply for failing to meet these monitoring and reporting requirements. (C) The current discharges are authorized by the CWA NPDES Program and the permit requires the discharge to comply with State water quality standards. Discharging in compliance with a NPDES permit would be an authorized and therefore not criminal activity. Comments (D) and (E) are beyond the scope of this NPDES permit.

Comment #20: The Village of Questa (the Village) commented that the Village is very supportive of the current proposed plan presented by CMI to shift the tailing disposal operation to the existing pit where mine-impacted water can be better managed and treated.

Response: Comment noted.

Comments #21 – #42: The Village provided the following specific comments and/or questions:

Comment #21: [Page 3, Part I.A.] There are two different "Total Mercury" effluent limitation listings for Outfall 002.

Response: One listing was technology-based limitations and another was water quality-based. Only the more stringent technology-based limitations are retained in the final permit.

Comment #22: [Page 3, Part I.A.] There were two items labeled (*3) and (*4) in the footnotes but not shown on the effluent limitation Table for Outfall 002.

Response: Typos are fixed.

Comment #23: [Page 4, Part I.A.] It was confused by a permit statement "Only the most stringent limitations will be established in the final permit."

Response: Both technology-based effluent limitations and water quality-based effluent limitations were considered to be listed in the proposed permit and the statement was provided for clarification purposes. EPA decided only to list the most stringent limitations in the proposed permit and the statement was left in the proposed permit by mistake. Correction is made.

Comment #24: [Page 4, Part I.A.] It was confused by the footnote "If fails any test, frequency returns to 1/3 months for remainder of the permit term."

Response: This footnote statement only applies to the Whole Effluent Toxicity testing requirement. The term "fail any test" means to fail a test either for Ceriodaphnia dubia or for Pimephales promelas during the term of the permit.

Comment #25: [Page 4, Part I.A.] The provision of "There should be no discharge of floating solids or visible foam in other than trace amounts" seems very open ended and subject to interpretation.

Response: This condition is based on the State narrative standard, 20.6.4.13.B which states "Floating Solids, Oil and Grease: Surface waters of the state shall be free of oils, scum, grease and other floating materials resulting from other than natural causes that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life." EPA considered that the narrative permit condition would meet the threshold of "that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life."

Comment #26: [Page 4, Part I.A.] Need a clarification whether a quarterly WET testing is required if mill operations do not take place during the quarter.

Response: A quarterly WET testing is required even if mill operations do not take place during that quarter.

Comment #27: [Page 4, Part I.A.] Whether or not the monitoring frequency reduction conditions apply at Outfall 002 while mill operations are still taking place?

Response: The proposed monitoring frequency reduction conditions only apply at Outfall 002 after tailings facility no longer receives wastewaters from mine and mills. Therefore, mill operations do not affect the WET testing frequency at all.

Comment #28: [Page 6, Part I.A.] What "other sources of wastewater" at Outfall 001 are contemplated by this permit?

Response: The facility may choose to treat the collected seepage from tailings facility or water remained in the tailings facility at the new treatment facility, then discharge it at Outfall 001.

Comment #29: [Page 6, Part I.A.] The provision of “There should be no discharge of floating solids or visible foam in other than trace amounts” seems very open ended and subject to interpretation.

Response: Please see EPA’s response to Comment #25.

Comment #30: [Page 7, Part I.A.] It was confused by the footnote “If fails any test, frequency returns to 1/3 months for remainder of the permit term.”

Response: Please see EPA’s response to Comment #24.

Comment #31: [Page 7, Part I.A.] The commenter asked for the exact sampling location for Outfall 001.

Response: Because the new treatment facility has not been built and the exact location of Outfall 001 has not been identified, EPA can not specify the coordinates of the sampling point. However, EPA considers the sample is representative if the sample is taken after the last treatment unit and prior to comingling with any other water, including receiving stream. See also response to NMED Comment #1.

Comment #32: [Part I.D.] What is the justification for eliminating in the 2013 proposed permit the monthly visual inspections of seepage areas and reporting requirements established in the 2006 permit.

Response: See EPA’s response to Comment #8.

Comment #33: [Page 9, Part I.D.] The commenter suggested that samples for effluent characteristic analysis shall be taken at least nine months apart or longer, instead of six months or longer as proposed.

Response: EPA proposed samples to be taken at least six months apart so two sampling events will not occur too close to each other. By the time CMI to submit its application for permit renewal which is at least six months prior to the permit expiration, CMI will have two sets of effluent data (one taken in late 2016 after the October 1, 2016, compliance schedule and another in 2017) reported to EPA. CMI may take the third sample in the early 2018, if the six-month interval is established in the permit as proposed. No change is necessary.

Comment #34: [Page 2, Part II.D.] The commenter requested EPA to clarify “process related ground water” in the statement of “The permittee shall maintain and properly operate seepage interception systems to prevent discharges of process related ground water to the Red River at Spring 13 and Spring 39.”

Response: The “process related ground water” means the contaminated ground water associated with point source mine operations. Because the expired permit used the term “point source mine operations,” to avoid confusion, the sentence is changed to read as “The permittee shall maintain and properly operate seepage interception systems to prevent discharges of point source mine operations to the Red River at Spring 13 and Spring 39.”

Comment #35: [Page 7, Part II.E.4.c.i, Page 8, Part II.E.4.d, and Page 10, Part II.E.5.c.] The commenter stated that the provisions in these sections appear to be missing the appropriate outline levels.

Response: Comment noted. The above mentioned outline levels look fine on permit writer's copy. Those might be caused when the document was converted from a "doc" document to a "pdf" document.

Comment #36: [Page 10, Part II.E.5.d.] The commenter suggested that the New Mexico Environment Department should be listed as the state agency for reporting purposes.

Response: Comment noted. The New Mexico Environment Department is the state agency for the permittee to submit their Final Report on Toxicity Reduction Evaluation.

Comment #37: [Appendix A to Part II] The commenter asked whether or not Minimum Quantification Levels were subject to change in the event new levels are established by EPA?

Response: EPA Region 6 periodically reviews and updates MQLs used for assessing application data and for use in setting minimum analytical expectations for compliance monitoring.

Comment #38: [Page 2, Part III.B.4] The commenter requested for clarification whether by-pass is allowed or not because provision Part III.B.4.a seems contradictory to Part III.B.4.c..

Response: Part III.B.4.a states that "The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c." A by-pass which complies with the provision Part III.B.4.a. may be allowed. See also 40 CFR 122.41(m).

Comment #39: [Page 4, Part III.D.2.] The commenter asked whether or not the permittee's advance notice relieved the permittee of liability for the noncompliance.

Response: No. In case of noncompliance, the permittee has an opportunity to explain its noncompliance to the EPA. The EPA has the ability to use enforcement discretion in determining the appropriate response to noncompliance.

Comment #40: [Page 11, Fact Sheet] The commenter questioned how the permit addressed potential discharges of treated water at the facility should that be necessary if the current Outfall 001 is eliminated. The commenter also disagreed with a statement in the fact sheet that the upgrades to be constructed under the ROD (Record of Decision) will "...capture most or all of the seepage from the tailing facility..."

Response: Please see EPA's response to Comments #4 and # 5.

Comment #41: [Outfall 002] The commenter requested EPA to clarify the justification for increasing the permit limit on molybdenum at Outfall 002 by approximately 60% from monthly average 3300 mg/l to 5280 mg/l. (Correction: mg/l should be read as µg/l)

Response: Please see EPA's response to Comment #6.

Comment #42: The commenter questioned why EPA proposed to remove effluent limitations for total aluminum based on one effluent data and recommended continued monitoring, research and periodic review of information to support re-establishment of a TMDL for the Red River in terms of new hardness-based total recoverable aluminum criterion.

Response: Please see EPA's response to Comment #9.

Comments #43: The Taos Pueblo and fifty two (52) individuals support the compliance schedule requirement to stop discharging tailings to the tailings facility by October 1, 2016, and urge EPA to retain this compliance schedule in the final permit. Taos Pueblo and those individuals have also provided the following three comments. (A) effluent limits for seven key Contaminants of Concern (COC) are necessary for all outfalls; (B) monthly visual inspection and associated reporting requirements of seepage from waste rock piles must be required in the final permit; and (C) adequate explanation of why the proposed monthly average molybdenum limitation at Outfall 002 is about 3 times less protective than the previous limitation.

Response: Comments are noted. Please also see EPA's response to Comment #16 about the key COC issue, Comment #8 about the visual inspection issue, and Comment #6 about the molybdenum limitation issue.

Comments #44 – #49: Amigos Bravos provided the following six comments.

Comment #44: [Fact Sheet] The commenter commented that because the NPDES permit does not address the seepage from the tailings facility, it has effectively limited Amigos Bravos ability to participate in the discussion on remedies; and therefore requested EPA to make every effort to include the public in discussions and remedies related to stopping the ongoing seepage from tailings facility. The commenter also requested that the fact sheet should be changed to reflect the sequence of tailings facility seepage events and to include information about the 2/28/2011 EPA inspection and compliance report.

Response: Comments are noted and are part of administrative records. Note that the CERCLA remediation process is still ongoing and allows for public input, including on the larger question of groundwater contamination. No changes to the permit were necessary.

Comment #45: [Compliance Schedule] The commenter requested that the proposed deadline of 10/1/2016 must be in the final permit. The commenter also requested that the following permit condition "The requirement to submit quarterly progress reports shall expire when the discharge is in compliance with the effluent limitations." to be modified to clearly indicate which effluent limits are being referred to.

Response: The first sentence, "The permittee shall ... comply with effluent limitations established at Outfall 001:" and paragraph iv, "By October 1, 2016: Comply with the effluent limitations established at Outfall 001." under the provision of Compliance Schedule, clearly indicate that the effluent limitations referred to are limits for Outfall 001. No progress report requirements are established for other outfalls. Discharge Monitoring Reports will be the longer term mechanism for reporting compliance with limitation for Outfall 001. No change in the final permit is necessary.

Comment #46: [Effluent Limitations, Monitoring Requirements and Reporting Requirements] The commenter commented that (A) effluent limitations for seven "key" COC are required, (B) monitoring for sulfate is lacking from all proposed outfalls and the monitoring frequency for "key" COC should be increased to quarterly, and (C) to meet anti-backsliding requirements effluent limits at Outfall 002 should be as protective as those in the 2006 permit.

Response: (A) Please see EPA's response to Comment #16. (B) As explained in the fact sheet, EPA is not proposing to include sulfate in the permit because NMED has not established a surface water quality standard for sulfate. The commenter may contact NMED's Groundwater Protection Program to request enhanced protection of groundwater. Regarding the monitoring frequency of "key" COC, the monitoring requirements for this permit were established to provide sufficient information on discharges to surface water. Note that the CERCLA action includes investigation of groundwater contamination that would provide another source of data. (C) Please see EPA's response to Comment #6.

Comment #47: [Visual Inspection] The commenter commented that visual inspections and associated reporting requirements of seepage from waste rock piles must be required in the final permit.

Response: Please see EPA's response to Comment #8.

Comment #48: [Storm Water] (A) The commenter commented that Outfalls 004 and 005 do not have any additional traditional stormwater controls (i.e., BMPs or Stormwater Management Pollution Prevention Plan (SWPPP)) and requested clarification whether Outfalls 004 and 005 are also covered under the Multi-sector General permit (MSGP). (B) The commenter asked how EPA addresses the stormwater issues mentioned in the 2/28/2011 Compliance Report which states that stormwater discharges at Outfalls 004 and 005 are not eligible for MSGP coverage and stormwater mixed with process wastewater pumped to the tailings facility are also not eligible for MSGP coverage.

Response: (A) Stormwater discharges at Outfalls 004 and 005 are authorized under this individual permit (NM0022306) and are not covered by the MSGP. Because Outfalls 004 and 005 have not had discharges for years and water quality-based effluent limitations have been established at these two outfalls as mechanism to control the quality of discharges, either BMPs or SWPPP are not necessary. (B) Two stormwater related issues listed as areas of concern in the Compliance Report are true statements that stormwater discharges at Outfalls 004 or 005 or pumped to the tailings facility are not eligible for MSGP coverage. All those discharges or potential discharges are covered by this individual permit and are therefore ineligible for MSGP coverage.

Comment #49: [Miscellaneous] There is a typo in the first sentence on page 6 of the permit.

Response: The first sentence has been changed to read as "During the period beginning from the start-up of Outfall 001...."

Comments #50 – #56 are provided by the Chevron Mining Inc. (CMI, the permittee)

Comment #50: [Compliance Schedule] The permittee commented that CMI disagrees that any current tailing facility seepage is "unauthorized" or that EPA has the jurisdiction under the CWA to impose the proposed deadline for cessation of flow to the tailing facility. However, it is not contesting the proposed permit term in which EPA imposes the BMP of ceasing flow to the tailing facility and EPA would manage seeps from tailings facility under CERCLA rather than the NPDES program. In the event that EPA elects to impose other controls of seeps under the NPDES program or elects not to manage the seeps under the CERCLA program, that action would constitute a material change from the draft permit and would require re-noticing of [a permit modification] for public comment.

Response: EPA has the jurisdiction under the CWA to regulate or eliminate seepage which reaches the waters of the US through hydrologic connection. The proposed compliance schedule is retained in the

final permit and the remaining tailing facility seepage issue after the cessation of flow to the tailing facility will be managed under the CERCLA program as stated in the fact sheet. The EPA agrees that any major changes to the permit could not be made without following the requirements of 40 CFR 122.62 - Modification or revocation and reissuance of permits, which includes notice and comment pursuant to 40 CFR 124.

Comment #51: [Water Balance/Seep] The permittee commented on the fact sheet that (A) when the mill is not operating, the average seepage is about 914 gallons per minute (gpm); and (B) the discharge at Outfall 002 is based on the quality of the water discharged, not the amount of water collected, as stated in the third paragraph of section IV.E.1 of the fact sheet. The permittee also stated that the issue of whether a new water treatment facility is needed at the tailing facility, and the extent to which any pumpback of collected waters should be allowed, is being handled under the CERCLA program.

Response: Comments are noted for the record.

Comment #52: [Outfall 002 Limits and Monitoring] CMI provided several specific comments as below. (A) CMI requested to remove water quality-based effluent limitations (WQBELs) for Outfall 002 because historic effluent data did not demonstrate reasonable potential (RP).

Response: As discussed in EPA's response to State Condition #1, all effluent loading limits from 2006 permit will be established in the final permit regardless of changes to concentration limits. Also, as explained in the fact sheet, establishing effluent limitations at Outfall 002 is to address some uncertainty regarding RP for future discharges and also because the discharge at Outfall 002 is based on the quality of collected waters (without providing any treatment) as stated in CMI's comment above. Retaining WQBELs in the permit will ensure the discharge at Outfall 002 will not cause exceedance of applicable water quality standards.

(B) CMI recalculated WQBELs for Outfall 002 and provided comments below:

1) The daily maximum limit for arsenic appears to have been incorrectly calculated using the human health criteria. The NMIP states in section IV.J.3. that "...permit limits established for human health protection will be monthly (30 day) average limits only, there will be no daily maximum limits."

Response: EPA agrees that the daily maximum limit shall not be based on the human health standard. Because the acute aquatic life standard is more stringent than other applicable standards, the acute aquatic life standard is used to establish the daily maximum limit for Outfall 002. The daily maximum limit for total arsenic will be 0.665 mg/l. But, because the human health-based monthly average limit is more stringent than acute aquatic life-based limit, the proposed 0.207 mg/l monthly average remains in the final permit.

2) The recalculated WQBELs for copper are the same as the proposed limits.

Response: Comment noted for the record.

3) CMI recalculated WQBELs for lead and used acute aquatic life standard to derive effluent limitations.

Response: In accordance with the NMIP, EPA has used the following equation for calculating water quality based effluent limits for discharges to perennial streams:

$$C_e = C_s [(FQ_a + Q_e)/Q_e] - C_a (FQ_a/Q_e)$$

where:

C_e = Allowable daily maximum effluent concentration. In the case of intermittent or ephemeral streams, $C_e = 100\% C_s$. Daily average effluent concentrations are calculated as $C_e/1.5$. Monthly or 30-day average limits will not be less than applicable water quality criteria unless state or EPA approved documents specify more stringent limitations.

Therefore, the most stringent applicable standard of chronic aquatic life is used to calculate the daily maximum WQBEL. No change is made.

4) CMI recalculated WQBELs for mercury based on acute aquatic life standard and obtained more stringent limits.

Response: EPA's calculation of the WQBELs for mercury was based on the total mercury standard for wildlife habitat use. The standards for aquatic life are based on dissolved mercury. EPA did not screen RP for dissolved mercury. Because the technology-based total mercury limitations are close to the aquatic life-based WQBELs and mercury has been reported undetected, the final permit retains the technology-based limits.

5) CMI recalculated the WQBELs for total zinc and obtained a more stringent monthly average limitation based on the equation (Monthly Average Value) = (Daily Maximum Value) / 1.5.

Response: Because the calculated monthly average limit is lower than the chronic aquatic life standard, to avoid a limit more stringent than the standard, the applicable chronic aquatic life standard is used as monthly average limit. No change is made.

CMI's comments and EPA's response to comments are parts of administrative record.

(C) CMI commented that there was no technology-basis to establish effluent limitations for manganese and fluoride for Outfall 002 and requested to remove these BPJ (Best Professional Judgment) permit limits. If the parameters are retained as WQBELs, CMI requested the manganese limits be recalculated using the acute aquatic life standard.

Response: EPA retains these two BPJ-based limits in the permit due to the anti-backsliding policy. However, EPA will consider removing these BPJ limits when EPA renews the next permit term based on new information once CMI discontinues waste flows to the tailings facility if effluent data also supports the change.

(D) CMI commented that it is unclear to which parameters footnote (*3) refers and the frequency of 1/day is excessive and the increase of frequency is not warranted since the effluent quality during milling and non-milling periods has shown little variation over the life of the permit.

Response: Labels (*1) and (*2) in the footnote are mistakenly left in the draft permit and are removed from the final permit. Footnotes (*3) and (*4) are corrected to be read as (*1) and (*2). During the milling period, one sample per month is unlikely to demonstrate any effluent quality variation between milling and non-milling. But, because the facility is required to cease transporting waste flows to the

tailings facility by October 1, 2016, the footnote for monitoring increase is removed from the final permit.

(E) CMI commented that two different sets of mercury limitations were listed for Outfall 002 and requested to remove the incorrect one.

Response: Please see EPA's responses to Comment #7 and Comment #52, item (B) above.

(F) CMI requested footnote (*1) and (*2) to be deleted.

Response: Typos are corrected. Please see EPA's response to Comment #7.

(G) CMI commented that the monitoring frequency has increased from quarterly to 1/month for fluoride, total suspended solids, molybdenum and zinc. Effluent data have shown no RP for these parameters, so to increase the monitoring frequency is not necessary.

Response: As stated in the fact sheet, Outfall 002 is a continued discharge and the NMIP suggested monitoring frequency is daily for toxic pollutants. EPA has decreased the frequency from daily to 1/month because CMI was in compliance for the last permit cycle. No change is made.

Comment #53: [Outfalls 004 and 005 Limits] CMI provided several specific comments as below.

(A-B & D) CMI requested to remove effluent limitations for aluminum, arsenic, cadmium, copper, lead, mercury, silver, chlordane and total residual chlorine (TRC).

Response: Effluent limitations and monitoring requirements for the above pollutants were established in 1993 permit. A combined loading limit for the sum of discharges from Outfalls 001, 002, 004 and 005 was established for each pollutant listed above in the 1993 permit as well. When the permit was in 2000, EPA determined that it was inappropriate to establish combined limits because Outfalls 004 and 005 discharged storm water only. Therefore, EPA established concentration limits for Outfalls 004 and 005, respectively. EPA also retained effluent limitations and monitoring requirements for those pollutants (including chlordane and TRC) in the permit because there were no discharges at these two outfalls. The limits in the 2000 issued final permit were based on the more stringent of either the previous technology-based limits or the State acute aquatic life standards. Because there have been no discharges from Outfalls 004 and 005 and EPA does not have data to determine RP, effluent limitations and monitoring requirements are retained in the permit. CMI may consider terminating these two outfalls if no discharges are expected in the future.

(C) CMI requested to remove effluent limitations for total suspended solids (TSS) because fact sheet did not identify the basis for inclusion of the limits.

Response: EPA has usually established TSS limits for storm water discharges based on best professional judgment (BPJ) because TSS could be an indicator used to demonstrate proper management practices or pollution prevention program. Due to anti-backsliding policy, these limits cannot be removed or relaxed.

(E) CMI requested to change the monitoring frequency of 1/day to 1/event with a maximum of once per quarter.

Response: EPA proposed the monitoring frequency of 1/day while discharging so more samples could be taken, if the discharge event lasts for more than one day, for EPA to evaluate the impacts caused by the discharge. Because these outfalls are not expected to discharge, to increase monitoring frequency will not cause CMI's financial burden significantly.

(F) CMI requested to change the effluent limitations for aluminum to monitoring only since the TMDL for aluminum for the Red River has been withdrawn.

Response: As explained in EPA's response to Comment (A-B & D) above, EPA needs additional effluent data to make a decision on removal of those limits.

Comment #54: [New Outfall 001 Limits and Effluent Characterization] CMI provided several specific comments as below.

(A) CMI commented that EPA used the maximum projected flow (3200 gpm) instead of the projected daily average flow (which is 1250 gpm) as instructed in section IV.1.1. of the NMIP to calculate the WQ-based effluent limitation for new Outfall 001.

Response: The NMIP procedure at section IV.1.1 uses the highest daily average flow for the past 24 months (or projected daily average flow in the case of new facilities). CMI provided a projected highest flow in addition to a projected daily average flow. Since both were available, the maximum projected flow was used as a surrogate for the highest daily for over the past 24 months and RP was determined to be more protective. However, the highest projected daily average flow should include 316 gpm of storm water so the flow value of 1566 gpm (2.255 mgd) is used to recalculate the WQ-based effluent limitations. The following recalculated WQ-based limitations are included in the final permit.

| Parameter | Daily Max / Monthly Avg (mg/l) | Daily Max / Monthly Avg (pounds per day) | Note |
|------------|--------------------------------------|--|--|
| Arsenic | 0.362 / 0.101 | 6.81 / 1.90 | Daily max (DM) based on irrigation standard and monthly avg (MA) based on human-health |
| Cadmium | 0.00090 / 0.00060 | 0.017 / 0.011 | DM based on aquatic life standard and MA = DM/1.5 |
| Copper | 0.044 / 0.029 | 0.829 / 0.553 | DM based on acute aquatic life standard and MA = DM/1.5 |
| Lead | 0.024 / 0.016 | 0.451 / 0.301 | DM based on aquatic life and MA = DM/1.5 |
| Mercury | 0.00126 / 0.00084 | 0.024 / 0.016 | DM based on wildlife habitat standard and MA = DM/1.5 |
| Zinc | 0.640 / 0.484 | 12.036 / 8.024 | DM based on acute aquatic life standard and MA = DM/1.5 |
| Molybdenum | 1.857 / 1.238 | 34.92 / 23.28 | DM based on irrigation standard and MA = DM/1.5 |

The DM values are derived from the most stringent applicable standards. E.g, in some cases, the calculated chronic-based standards are more stringent than the acute-based standards. Then, the DM will

be calculated based on the chronic-based standards. The MA value equals DM/1.5, except where the calculated limit would be less than the applicable standard, whereby the standard is used as the MA. For arsenic, because the human health-based standard is the most stringent standard, MA is calculated based on the human health standard. The DM for arsenic, in this case, is calculated based on the next stringent standard which is irrigation standard. Effluent limitations for molybdenum are added because they were requested by other commenters and also because the discharge has potential to contribute molybdenum to the Red River. It is anticipated that molybdenum monitoring would be of interest for CMI to determine whether excessive product was being lost.

(B) CMI requested to change the monitoring frequency for certain effluent characteristics from once per calendar year to once per permit cycle because the vast majority of those parameters are not expected to be present, the effluent characteristics are unlikely to change over time, and none of them were identified as "constituents of concern" by EPA.

Response: CMI is only required to take up to three samples between October 1, 2016, and the expiration date of the permit in 2018 or the date when CMI submits the permit application for renewal. CMI will operate a new treatment facility and this effluent data will be used to assess RP in the future.

(C) CMI requested to use stream hardness after mixing with discharge to calculate hardness-dependent effluent limitations.

Response: EPA has been using upstream stream hardness or any ambient data as background, whenever those data are available, to calculate RP as well as effluent limitations. Also, to use stream low flow, 4Q3 flow, to calculate both RP and effluent limitations is a conservative approach; but to use 4Q3 flow to calculate the downstream stream hardness will result in a false hardness which is higher than the actual hardness. As a result, the calculated effluent limitations which are based on higher hardness may not provide adequate protection to aquatic life in the stream.

Comment 55: [Whole Effluent Toxicity Testing] CMI provided several specific comments as below.

(A) CMI requested to remove the following condition "the quarterly WET testing sample must be collected during the milling operation period if milling operations take place in that quarter." CMI provided several reasons which include the effluent quality between milling and non-milling periods is minimal; CMI has passed previous WET tests during milling in 2006 and 2007; and CMI's ability to schedule WET sampling.

Response: Because most of other monitoring requirements for Outfall 002 are on a monthly basis and CMI should have scheduled in advance when to operate the mills, EPA does not find it necessary to change the requirement. Discharges during milling operations have the highest potential to have elevated pollutant concentrations and thus pose the higher potential risk to water quality should treatment systems not be functioning as anticipated. No change is made.

(B) CMI commented that critical dilution for Outfall 002 should be 13% as described in the fact sheet, not the 15% as established in the permit.

Response: Critical dilution and dilution series for WET testing at Outfall 002 are corrected.

(C) CMI requested EPA to recalculate the critical dilution for new Outfall 001.

Response: The new critical dilution is calculated based on the following information and equation:

4Q3 flow = 1.94 MGD

Maximum daily average effluent flow: 2.255 MGD

Critical dilution = $2.255 / (2.255 + 1.94) = 0.54 \times 100\% = 54\%$.

Dilution series are also recalculated accordingly.

Comment 56: [Fact Sheet Clarification] CMI provided several specific comments to clarify certain statements made in the fact sheet. CMI's comments include (A) to delete the statement regarding monitoring frequency of 1/day for Outfall 002 when the mill is being operated; (B) CMI is no longer proposing to build a filter cake plant; (C) to delete the statement regarding an internal outfall referenced in the fact sheet which was not proposed in the permit; and (D) CMI likes to clarify that discharge at Outfall 002 is authorized.

Response: Comments on fact sheet are noted. Comments do not result in any change of permit conditions.



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No. **NM0022306**

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Chevron Mining Inc. -- Questa Mine
P.O. Box 469
Questa, NM 87556

is authorized to discharge from a facility located near Questa in Taos County, to the receiving water named

Red River, Waterbody Segment Code No. 20.6.4.122 of the Rio Grande Basin

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit supersedes and replaces NPDES Permit No. NM0022306 issued on October 1, 2006.

This permit shall become effective on **November 1, 2013**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2018**

Issued on **September 30, 2013**

Prepared by

William K. Honker, P.E.
Director
Water Quality Protection Division (6WQ)

Isaac Chen
Environmental Engineer
Permits Section (6WQ-PP)

THIS PAGE INTENTIONALLY LEFT BLANK

[Handwritten signature]

PART I
REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 002

During the period beginning the effective date and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 002 – collected seepage from tailings facility.

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|-----------|--------------------------|---------|-------------------------|------------------|
| | CONCENTRATION | | LOADING | | FREQUENCY | SAMPLE TYPE |
| | (mg/L, unless stated) | | (Lbs/day, unless stated) | | | |
| | MONTHLY | DAILY | MONTHLY | DAILY | | |
| | AVERAGE | MAXIMUM | AVERAGE | MAXIMUM | | |
| Flow (MGD) | *** | *** | Report | Report | Continuous | Record |
| Total Manganese | 1.0 | 1.5 | 5.38 | 8.07 | 1/month | 24-hr. composite |
| Fluoride | 3.0 | 3.0 | 16.1 | 16.1 | 1/month | 24-hr. composite |
| Total Suspended Solids | 20 | 30 | 107.6 | 161.4 | 1/month | 24-hr. composite |
| Total Arsenic | 0.207 | 0.665 | 1.11 | 1.67 | 1/month | 24-hr. composite |
| Total Cadmium | 1.19 µg/l | 1.79 µg/l | 0.0064 | 0.0096 | 1/month | 24-hr. composite |
| Total Copper | 0.029 | 0.044 | 0.12 | 0.18 | 1/month | 24-hr. composite |
| Total Lead | 0.057 | 0.086 | 0.308 | 0.463 | 1/month | 24-hr. composite |
| Total Mercury | 1 µg/l | 2 µg/l | 0.000336 | 0.0005 | 1/month | 24-hr. composite |
| Total Molybdenum | 1.32 | 1.98 | 9.6 | 14.7 | 1/month | 24-hr. composite |
| Total Zinc | 0.485 | 0.640 | 0.58 | 0.58 | 1/month | 24-hr. composite |
| Total Aluminum | Report | Report | 0.169 | 0.254 | 1/quarter | 24-hr. composite |
| Total Cyanide | Report | Report | 0.0429 | 0.064 | 1/quarter | 24-hr. composite |

Dissolved Uranium Report Report Report Report 1/year 24-hr. composite

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|---|----------------------|---------------|-------------------------|-----------------|
| WHOLE EFFLUENT TOXICITY TESTING (7-day Static Renewal) | MONTHLY AVG MINIMUM | 7-DAY MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Ceriodaphnia dubia | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note:

(*1) The frequency for the first year (12 months) is 1/3 months. If all tests pass, the frequencies for year 2 to 5 are 1/6 months for Ceriodaphnia dubia and 1/year for Pimephales promelas. If fails any test, frequency returns to 1/3 months for remainder of the permit term.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the final Outfall 002. The quarterly WET testing sample must be collected during the milling operation period if milling operations take place in that quarter.

Monitoring reduction associated with Compliance Schedule specified in Part I.B. of this permit: All monitoring requirements at Outfall 002 could be reduced to 1/6 months and WET tests could be reduced to 1/year after CMI demonstrates that: 1) CMI ceases conveying all waste streams to tailings facility; 2) discharges at Outfall 002 after cessation of water conveyance to the tailings facility are in compliance with effluent limitations and pass WET tests; and 3) the maximum discharge flow at Outfall 002 is below and not expected to exceed 0.645 MGD for the rest of the permit term.

OUTFALLS 004 and 005

During the period beginning the effective date and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfalls 004 and 005 – storm water.

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|-----------|--------------------------|---------|-------------------------|-----------------|
| | CONCENTRATION | | LOADING | | FREQUENCY | SAMPLE TYPE |
| | (mg/L, unless stated) | | (Lbs/day, unless stated) | | | |
| | MONTHLY | DAILY | MONTHLY | DAILY | | |
| | AVERAGE | MAXIMUM | AVERAGE | MAXIMUM | | |
| Flow (MGD) | *** | *** | Report | Report | 1/day | Measure by Weir |
| Chemical Oxygen Demand | 125 | 125 | --- | --- | 1/day | Grab |
| Total Suspended Solids | 20 | 30 | --- | --- | 1/day | Grab |
| Total Zinc | 0.2 | 0.2 | --- | --- | 1/day | Grab |
| Total Arsenic | 0.665 | 0.665 | --- | --- | 1/day | Grab |
| Total Cadmium | 1.78 µg/l | 1.78 µg/l | --- | --- | 1/day | Grab |
| Total Copper | 0.044 | 0.044 | --- | --- | 1/day | Grab |
| Total Lead | 0.403 | 0.403 | --- | --- | 1/day | Grab |
| Total Mercury | 1.4 µg/l | 1.4 µg/l | --- | --- | 1/day | Grab |
| Total Aluminum | 3.87 | 3.87 | --- | --- | 1/day | Grab |
| Total Silver | 0.012 | 0.012 | --- | --- | 1/day | Grab |
| Total Chlordane | 2.4 µg/l | 2.4 µg/l | --- | --- | 1/day | Grab |
| Total Residual Chlorine | 0.019 | 0.019 | --- | --- | 1/day | Grab |

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|--|----------------------|---------------|-------------------------|-----------------|
| WHOLE EFFLUENT TOXICITY TESTING (48 Hr. Static Renewal) | MONTHLY AVG MINIMUM | 48-Hr MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Daphnia pulex | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note: (*1) When discharging. See Part II.G.

All samples shall be collected at the outfall where overflows leave the catch basin whenever a discharge occurs.

New Outfalls 001

During the period beginning the start-up of Outfall 001 (no later than October 1, 2016) and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 – treated mills wastewater, mine drainage, storm water, captured groundwater and other sources of wastewaters.

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTIC | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|-------------------------|-----------------------|-----------|-------------------------|---------|-------------------------|------------------|
| | CONCENTRATION | | LOADING | | FREQUENCY | SAMPLE TYPE |
| | (mg/l, unless stated) | | (lb/day, unless stated) | | | |
| | MONTHLY | DAILY | MONTHLY | DAILY | | |
| | AVERAGE | MAXIMUM | AVERAGE | MAXIMUM | | |
| Flow (MGD) | --- | --- | Report | Report | Continuous | Record |
| Total Suspended Solids | 20 | 30 | 769 | 1153 | 1/month | 24-hr. composite |
| Total Arsenic | 0.101 | 0.362 | 1.90 | 6.81 | 1/ month | 24-hr. composite |
| Total Cadmium | 0.6 µg/l | 0.9 µg/l | 0.011 | 0.017 | 1/ month | 24-hr. composite |
| Total Copper | 0.029 | 0.044 | 0.553 | 0.829 | 1/ month | 24-hr. composite |
| Total Lead | 0.016 | 0.024 | 0.301 | 0.451 | 1/ month | 24-hr. composite |
| Total Mercury | 0.84 µg/l | 1.26 µg/l | 0.016 | 0.024 | 1/ month | 24-hr. composite |
| Total Zinc | 0.484 | 0.640 | 8.024 | 12.036 | 1/ month | 24-hr. composite |
| Total Molybdenum | 1.238 | 1.857 | 23.28 | 34.92 | 1/ month | 24-hr. composite |

The pH limit range shall be no less than 6.6 standard units and no greater than 8.8 standard units and shall be monitored 1/day by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

| EFFLUENT CHARACTERISTICS | DISCHARGE MONITORING | | MONITORING REQUIREMENTS | |
|---|----------------------|---------------|-------------------------|-----------------|
| WHOLE EFFLUENT TOXICITY TESTING (7-day Static Renewal) | MONTHLY AVG MINIMUM | 7-DAY MINIMUM | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Ceriodaphnia dubia | Report | Report | 1/3 Months (*1) | 24-Hr Composite |
| Pimephales promelas | Report | Report | 1/3 Months (*1) | 24-Hr Composite |

Note: (*1) The frequency for the first year (12 months) is 1/3 months. If all tests pass, the frequency for year 2 to 5 reduces to 1/6 months for Ceriodaphnia dubia and 1/year for Pimephales promelas. If fails any test, frequency returns to 1/3 months for remainder of the permit term. Also see Part II.F.

Sampling Location

Samples shall be taken at Outfall 001, a point after the last Equalizer Tank but before reach the Red River.

B. COMPLIANCE SCHEDULES

The permittee shall comply with the following schedule of activities for cessation of waste streams to the tailings facility in order to substantially eliminate unauthorized tailings facility seepage and comply with effluent limitations established at Outfall 001:

- i. By 90 days from the effective date of the final permit (EDP): Commence engineering designs for cessation of waste streams to the tailings facility;
- ii. By 270 days from the EDP: Commence construction works which may include ground-breaking, start of new pipeline/facility installation, or start of significant modification of existing technology/facility;
- iii. By October 1, 2016: Totally cease conveying mill process wastewater, mine drainage, and captured groundwater or spring water to tailings facility; and
- iv. By October 1, 2016: Comply with the effluent limitations established at Outfall 001.

The permittee shall submit quarterly progress reports in accordance with the following schedule. The requirement to submit quarterly progress reports shall expire when the discharge is in compliance with the effluent limitations.

| <u>PROGRESS REPORT DATE</u> | <u>REPORTING PERIOD</u> |
|-----------------------------|-------------------------|
| January 15 | October - December |
| April 15 | January - March |
| July 15 | April - June |
| October 15 | July - September |

The quarterly progress reports shall address the progress towards cessation of waste streams to the tailings facility. Reports shall be submitted no later than "Progress Report Date" listed above. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. Compliance schedule progress reports shall be submitted to EPA and copy to NMED at addresses listed in Part III.D.4 of the permit.

C. REPORTING OF MONITORING RESULTS

Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR.epa.gov in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and other agencies as required. (See Part III.D.4 of the permit.)

Monthly monitoring report shall be summarized and reported no later than the 15th day of the month following the completed reporting period.

D. EFFLUENT CHARACTERISTIC ANALYSIS FOR NEW DISCHARGES (OUTFALL 001)

Beginning the start-up of the new water treatment and lasting through the expiration date of the permit, the permittee shall collect samples at Outfall 001 once per calendar year, during the period of mill operations, for analysis of effluent characteristics as listed below. Samples shall be taken at least six months apart or longer. The first sample shall be taken within the 30 days of first commencing discharge after the final compliance schedule.

RADIOACTIVITY, NUTRIENTS, AND CHLORINE

Aluminum (T); Barium (D); Boron (D); Cobalt (D); Uranium (D); Vanadium (D); Ra-226 and Ra-228 (pCi/l); Strontium (pCi/l); Tritium (pCi/l); Gross Alpha (pCi/l); Total Residual Chlorine; Nitrate as N (mg/l); and Nitrite + Nitrate (mg/l).

VOLATILE COMPOUNDS

Acrolein; Acrylonitrile; Benzene; Bromoform; Carbon Tetrachloride; Chlorobenzene; Chlorodibromomethane; Chloroform; Dichlorobromomethane; 1,2-Dichloroethane; 1,1-Dichloroethylene; 1,2-Dichloropropane; 1,3-Dichloropropylene; Ethylbenzene; Methyl Bromide; Methylene Chloride; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Toluene; 1,2-trans-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; and Vinyl Chloride.

ACID COMPOUNDS

2-Chlorophenol; 2,4-Dichlorophenol; 2,4-Dimethylphenol; 4,6-Dinitro-o-Cresol; 2,4-Dinitrophenol; Pentachlorophenol; Phenol; and 2,4,6-Trichlorophenol.

BASE/NEUTRAL

Acenaphthene; Anthracene; Benzo(a)anthracene; Benzo(a)pyrene; 3,4-Benzofluoranthene; Benzo(k)fluoranthene; Bis(2-chloroethyl)Ether; Bis(2-chloroisopropyl)Ether; Bis(2-ethylhexyl)Phthalate; Butyl Benzyl Phthalate; 2-Chloronaphthalene; Chrysene; Dibenzo(a,h)anthracene; 1,2-Dichlorobenzene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; 3,3'-Dichlorobenzidine; Diethyl Phthalate; Dimethyl Phthalate; Di-n-Butyl Phthalate; 2,4-Dinitrotoluene; 1,2-Diphenylhydrazine; Fluoranthene; Fluorene; Hexachlorobenzene; Hexachlorobutadiene; Hexachlorocyclopentadiene; Hexachloroethane; Indeno(1,2,3-cd)Pyrene; Isophorone; Nitrobenzene; n-Nitrosodimethylamine; n-Nitrosodi-n-Propylamine; n-Nitrosodiphenylamine; Nonylphenol; Pyrene; and 1,2,4-Trichlorobenzene.

PESTICIDES AND PCBS

Aldrin; Alpha-BHC; Beta-BHC; Gamma-BHC; Chlordane; 4,4'-DDT and derivatives; Dieldrin; Diazinon; Alpha-Endosulfan; Beta-Endosulfan; Endosulfan sulfate; Endrin; Endrin Aldehyde; Heptachlor; Heptachlor Epoxide; PCBs; and Toxaphene.

In addition to annual effluent characteristics samples as addressed above, the permittee must also take samples once per calendar quarter for metal analysis as listed below.

METALS AND CYANIDE

Antimony (D); Arsenic (D); Beryllium (D); Cadmium (D); Chromium-III (D); Chromium-VI (D); Chromium (D); Copper (D); Lead (D); Manganese (D); Mercury (T & D); Molybdenum (T & D); Nickel (D); Selenium (T); Silver (D); Thallium (D); Zinc (D); and Cyanide (T). [Note: T means total recoverable or total and D means dissolved]

All analytical results shall be reported with next permit application renewal or upon EPA or NMED's request.

E. EFFLUENT CHARACTERISTIC ANALYSIS FOR OUTFALLS 004 and 005

The permittee shall collect samples at Outfall 004 and Outfall 005 when a discharge occurs for analysis of effluent characteristics as listed below.

Antimony (D), Arsenic (D), Nickel (D), Selenium (D), Thallium (D), Zinc (D), Cyanide, weak acid (D), 2,3,7,8-TCDD Dioxin, Acrolein, Acrylonitrile, Benzene, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, Dichlorobromomethane, 1,2-Dichloroethane, 1,1-Tichloroethylene, 1,2-Dichloropropane, 1,3-Dichloropropene, Ethylbenzene, Methyl Bromide, Methylene Chloride, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, Toluene, 1,2--trans-Dichloroethylene, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, 2-Chlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Methyl-4,6-Dinitrophenol, 2,4-Dinitrophenol, Pentachlorophenol, Phenol, 2,4,6-Trichlorophenol, Acenaphthene, Anthracene, Benzdine, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloroethyl)Ether, Bis(2-chloroisopropyl)Ether, Bis(2-ethylhexyl)Phthalate, Butyl Benzyl Phthalate, 2-Chloronaphthalene, Chrysene, Dibenzo(a,h)anthracene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 3,3-Dichlorobenzidine, Diethyl Phthalate, Dimethyl Phthalate, Dibutyl Phthalate, 2,4-Dinitrotoluene, 1,2-Diphenylhydrazine, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno(1,2,3-cd)Pyrene, Isophorone, Nitrobenzene, n-Nitrosodimethylamine, n-Nitrosodi-n-Propylamine, n-Nitrosodiphenylamine, Pyrene, 1,2,4-Trichlorobenzene, Aldrin, Alpha-BHC, Beta-BHC, Gamma-BHC, Chlordane, 4,4'-DDT and derivatives, Dieldrin, Alpha-Endosulfan, Beta-Endosulfan, Endosulfan sulfate, Endrin, Endrin, Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs, and Toxaphene.

All analytical results shall be reported with next permit application renewal or upon EPA or NMED's request.

Part II
PART II
OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL

If any individual analytical test result is less than the minimum quantification level listed in the Appendix A to this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40CFR136. For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to the EPA Region 6 NPDES Permits Branch (6WQ-P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported to EPA at the following e-mail address:

R6 NPDES Reporting@epa.gov and orally to the New Mexico Environment Department at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

Aluminum, arsenic, cadmium, copper, lead, mercury, silver, chlordane, and total residual chlorine.

C. Permit Modification and Reopener Clause

The permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, or new State water quality standards are established and/or remanded by the New Mexico Water Quality Control Commission.

The permit may also be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance.

D. Best Management Practices

This permit prohibits the discharge to the Red River of pollutants traceable to point source mine operations except in trace amounts. Implementation of these Best Management Practices (described below) is considered compliance with this prohibition.

The permittee shall maintain and properly operate seepage interception systems to prevent discharges of process related ground water to the Red River at Spring 13 and Spring 39. The permittee shall also properly operate the ground water withdrawal well below the toe of the Sugar Shack South deposit at a location approximately 100 yards southwest of the old mill site.

Spring 13 is defined as the seepage zone located on the north side of the Red River at the southwest base of Goathill, just east of Capulin Canyon.

Spring 39 is defined as the seepage zone located on the north side of the Red River approximately 500 feet east of Goathill Campground.

The permittee shall conduct monthly visual inspections of the Red River and its banks in the vicinity of the facility at the following known historic seeps and springs locations: Goathill Gulch seep, Sulphur Gulch seep, Portal springs, Cabins Springs, Upper Spring 39, Shaft Springs, Spring 39, and Spring 13. Quantitative estimates of flow will be noted and evaluated to identify changes in discharge or seepage trends. Data obtained from monitoring wells located below the mine front waste rock piles may be substituted for visual observation of seeps and springs in that area. A report summarizing the monthly inspections shall be submitted annually. In the event that the quantitative estimate of flow identifies and order of magnitude increase in the average discharge or seepage rates, the observation shall be reported to the Agencies within fourteen days of identification of the change. This fourteen day reporting requirement applies to Portal Spring (below the Sugar Shack deposit in the vicinity of the Old Mill), Spring 13, and Spring 39. This permit may be reopened if any significant discharge or seepage occurs or if it is determined that existing seepage in other locations is hydrologically connected to the mine. Should monitoring required under Part II.A of this permit show that the seepage interception system is In effective or find seepage traceable to point source mine operations, this permit may be modified or revoked and reissued to address those discharges."

E. TAILINGS SPILL MONITORING REQUIREMENTS

As soon as practicable after the arrival of CMI's environmental staff at the site of a tailings spill that reaches the Red River, but no later than two (2) hours after arrival at the site, water quality sampling shall commence. Samples shall be taken at three sites:

- (1) Approximately 100 feet above the point where tailings enter the river;
- (2) Approximately 100 feet below the point where tailings enter the river; and
- (3) Approximately one-half mile below the point where tailings enter the river.

All samples shall be properly preserved and analyzed for:

Chemical Oxygen Demand
Total Suspended Solids
Total Arsenic
Total Cadmium
Total Copper
Total Cyanide
Fluoride
Total Iron
Total Lead
Total Manganese
Total Mercury
Total Molybdenum
Total Zinc
Total Aluminum
Total Boron
Total Chromium
Total Cobalt
Total Selenium
Total Vanadium
Total Beryllium
Total Nickel
Total Silver
Un-ionized Ammonia (as N)
Total Residual Chlorine
Temperature
pH

The results of the analysis shall be submitted to the EPA and the NMED within 30 days following a tailings spill.

Consistent with the procedures described in the Preventative Maintenance and Surveillance Plan and the Contingency Action and Reporting Plan (June 1975), a written report containing the following information will be sent to the EPA and the NMED within ten (10) days following any spill:

- (1) Date of Spill.
- (2) Time when the spill was observed and time when tailings flow into the river was stopped.
- (3) Location (pipe or coupling number).
- (4) Estimated amount of tailings that entered the river.
- (5) Sketch and dimension of size of hole or failure that caused the spill.
- (6) Position of failure in the pipe or coupling.
- (7) Copy of the latest computer printout covering the pipe or coupling which failed.

(8) Comments, if required for clarification.

F. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC FRESHWATER)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S): 002

REPORTED ON DMR AS FINAL OUTFALL: 002

CRITICAL DILUTION (%): 13%

EFFLUENT DILUTION SERIES (%): 4%, 6%, 8%, 10%, and 13%

APPLICABLE TO FINAL OUTFALL(S): 001

REPORTED ON DMR AS FINAL OUTFALL: 001

CRITICAL DILUTION (%): 54%

EFFLUENT DILUTION SERIES (%): 23%, 30%, 41%, 54%, and 72%

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution. The purpose of additional tests (also referred to as 'retests' or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

If any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit.

a. Part I Testing Frequency Other Than Monthly

i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

ii. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

iii. IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any two of the three additional tests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRE_{SL}) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be

the test completion date of the first failed retest. A TRE may also be required for failure to perform the required retests.

iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of *Ceriodaphnia dubia* neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods.
- iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vii. A Percent Minimum Significant Difference (PMSD) range of 13 - 47 for *Ceriodaphnia dubia* reproduction;
- viii. A PMSD range of 12 - 30 for Fathead minnow growth.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

i. For the *Ceriodaphnia dubia* survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.

ii. For the *Ceriodaphnia dubia* reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

iii. If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

(B) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

(C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and

(D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above.

ii. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iii. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

v. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in item 1.a. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

4. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. *Pimephales promelas* (Fathead Minnow)

If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP6C

Report the NOEC value for survival, Parameter No. TOP6C

Report the Lowest Observed Effect Concentration (LOEC) value for survival, Parameter No. TXP6C

Report the NOEC value for growth, Parameter No. TPP6C

Report the LOEC value for growth, Parameter No. TYP6C

If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP6C

Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C

ii. *Ceriodaphnia dubia*

(A) If the NOEC for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP3B

(B) Report the NOEC value for survival, Parameter No. TOP3B

- (C) Report the LOEC value for survival, Parameter No. TXP3B
- (D) Report the NOEC value for reproduction, Parameter No. TPP3B
- (E) Report the LOEC value for reproduction, Parameter No. TYP3B
- (F) If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B
- (G) Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B

d. Enter the following codes on the DMR for retests only:

For retest number 1, Parameter 22415, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'

For retest number 2, Parameter 22416, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'

For retest number 3, Parameter 51443, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'

5. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRE_{SL}) is triggered based on three sub-lethal test failures while a lethal effects TRE (TRE_L) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE_{SL} where there are no effects at effluent dilutions of less than 76% effluent.

a. Within ninety (90) days of confirming persistent toxicity, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:

i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity

characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures' (EPA-600/6-91/003) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/080) and 'Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

6. MONITORING FREQUENCY REDUCTION

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Ceriodaphnia dubia*).

b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of

confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.

c. **SUB-LETHAL OR SURVIVAL FAILURES** - If any test fails the survival or sub-lethal endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

Any monitoring frequency reduction granted applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

G. **WHOLE EFFLUENT TOXICITY TESTING (48-HOUR ACUTE NOEC FRESHWATER)**

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. **SCOPE AND METHODOLOGY**

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

| | |
|-----------------------------------|----------------------|
| APPLICABLE TO FINAL OUTFALL(S): | 004 & 005 |
| REPORTED ON DMR AS FINAL OUTFALL: | 004 & 005 |
| CRITICAL DILUTION (%): | 5 |
| EFFLUENT DILUTION SERIES (%): | 1.25, 2.5, 5, 10, 20 |
| COMPOSITE SAMPLE TYPE: | Defined at PART I |
| TEST SPECIES/METHODS: | 40 CFR Part 136 |

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five

(5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Lethal Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.
- c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. PERSISTENT LETHALITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent). The purpose of additional tests (also referred to as 'retests' or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation.

Such testing cannot confirm or disprove a previous test result.

If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

a. Part I Testing Frequency Other Than Monthly

- i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The two additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.
- ii. If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the

first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

- iii. The provisions of Item 2.a are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: Daphnia pulex survival test; and Fathead minnow survival test.
- iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for: Daphnia pulex survival test; and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with

the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-012 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;
 - (A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
 - (B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;
 - (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
 - (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
 - (D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect two flow-weighted composite samples from the outfall(s) listed at Item 1.a above.
- ii. The permittee shall collect a second composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.
- iii. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

4. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.
- b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each

reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

- c. The permittee shall report the following results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.
 - i. Pimephales promelas (Fathead minnow)
 - (A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
 - (B) Report the NOEC value for survival, Parameter No. TOM6C.
 - (C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.
 - ii. Daphnia pulex
 - (A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
 - (B) Report the NOEC value for survival, Parameter No. TOM3D.
 - (C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.
- d. Enter the following codes on the DMR for retests only:
 - i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - ii. For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

5. TOXICITY REDUCTION EVALUATION (TRE)

- a. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and

methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

- i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA-600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

- ii. **Sampling Plan** (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

- iii. **Quality Assurance Plan** (e.g., QA/QC implementation, corrective actions, etc.); and

- iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
 - i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
 - ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
 - iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

- e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

6. MONITORING FREQUENCY REDUCTION

- a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test

species, with no lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).

- b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency=s Permit Compliance System section to update the permit reporting requirements.
- c. SURVIVAL FAILURES - If any test fails the survival endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.
- d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

APPENDIX A of PART II

The following Minimum Quantification Levels (MQL's) are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

| POLLUTANTS | MQL µg/l | POLLUTANTS | MQL µg/l |
|--|-------------|--------------------------------|-------------|
| METALS, RADIOACTIVITY, CYANIDE and CHLORINE | | | |
| Aluminum | 2.5 | Molybdenum | 10 |
| Antimony | 60 | Nickel | 0.5 |
| Arsenic | 0.5 | Selenium | 5 |
| Barium | 100 | Silver | 0.5 |
| Beryllium | 0.5 | Thallium | 0.5 |
| Boron | 100 | Uranium | 0.1 |
| Cadmium | 1 | Vanadium | 50 |
| Chromium | 10 | Zinc | 20 |
| Cobalt | 50 | Cyanide | 10 |
| Copper | 0.5 | Cyanide, weak acid dissociable | 10 |
| Lead | 0.5 | Total Residual Chlorine | 33 |
| Mercury *1 | 0.0005 | | |
| | 0.005 | | |

DIOXIN

| | |
|--------------|---------|
| 2,3,7,8-TCDD | 0.00001 |
|--------------|---------|

VOLATILE COMPOUNDS

| | | | |
|----------------------|----|----------------------------|----|
| Acrolein | 50 | 1,3-Dichloropropylene | 10 |
| Acrylonitrile | 20 | Ethylbenzene | 10 |
| Benzene | 10 | Methyl Bromide | 50 |
| Bromoform | 10 | Methylene Chloride | 20 |
| Carbon Tetrachloride | 2 | 1,1,2,2-Tetrachloroethane | 10 |
| Chlorobenzene | 10 | Tetrachloroethylene | 10 |
| Chlorodibromomethane | 10 | Toluene | 10 |
| Chloroform | 50 | 1,2-trans-Dichloroethylene | 10 |
| Dichlorobromomethane | 10 | 1,1,2-Trichloroethane | 10 |
| 1,2-Dichloroethane | 10 | Trichloroethylene | 10 |
| 1,1-Dichloroethylene | 10 | Vinyl Chloride | 10 |
| 1,2-Dichloropropane | 10 | | |

ACID COMPOUNDS

| | | | |
|----------------------|----|-----------------------|----|
| 2-Chlorophenol | 10 | 2,4-Dinitrophenol | 50 |
| 2,4-Dichlorophenol | 10 | Pentachlorophenol | 5 |
| 2,4-Dimethylphenol | 10 | Phenol | 10 |
| 4,6-Dinitro-o-Cresol | 50 | 2,4,6-Trichlorophenol | 10 |

| POLLUTANTS | MQL µg/l | POLLUTANTS | MQL µg/l |
|-----------------------------|-------------|---------------------------|-------------|
| BASE/NEUTRAL | | | |
| Acenaphthene | 10 | Dimethyl Phthalate | 10 |
| Anthracene | 10 | Di-n-Butyl Phthalate | 10 |
| Benzidine | 50 | 2,4-Dinitrotoluene | 10 |
| Benzo(a)anthracene | 5 | 1,2-Diphenylhydrazine | 20 |
| Benzo(a)pyrene | 5 | Fluoranthene | 10 |
| 3,4-Benzofluoranthene | 10 | Fluorene | 10 |
| Benzo(k)fluoranthene | 5 | Hexachlorobenzene | 5 |
| Bis(2-chloroethyl)Ether | 10 | Hexachlorobutadiene | 10 |
| Bis(2-chloroisopropyl)Ether | 10 | Hexachlorocyclopentadiene | 10 |
| Bis(2-ethylhexyl)Phthalate | 10 | Hexachloroethane | 20 |
| Butyl Benzyl Phthalate | 10 | Indeno(1,2,3-cd)Pyrene | 5 |
| 2-Chloronaphthalene | 10 | Isophorone | 10 |
| Chrysene | 5 | Nitrobenzene | 10 |
| Dibenzo(a,h)anthracene | 5 | n-Nitrosodimethylamine | 50 |
| 1,2-Dichlorobenzene | 10 | n-Nitrosodi-n-Propylamine | 20 |
| 1,3-Dichlorobenzene | 10 | n-Nitrosodiphenylamine | 20 |
| 1,4-Dichlorobenzene | 10 | Pyrene | 10 |
| 3,3'-Dichlorobenzidine | 5 | 1,2,4-Trichlorobenzene | 10 |
| Diethyl Phthalate | 10 | | |
| PESTICIDES AND PCBS | | | |
| Aldrin | 0.01 | Beta-Endosulfan | 0.02 |
| Alpha-BHC | 0.05 | Endosulfan sulfate | 0.02 |
| Beta-BHC | 0.05 | Endrin | 0.02 |
| Gamma-BHC | 0.05 | Endrin Aldehyde | 0.1 |
| Chlordane | 0.2 | Heptachlor | 0.01 |
| 4,4'-DDT and derivatives | 0.02 | Heptachlor Epoxide | 0.01 |
| Dieldrin | 0.02 | PCBs | 0.2 |
| Alpha-Endosulfan | 0.01 | Toxaphene | 0.3 |

(MQL's Revised November 1, 2007)

Footnotes:

- *1 Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005.

PART III - STANDARD CONDITIONS FOR NPDES PERMITS**A. GENERAL CONDITIONS****1. INTRODUCTION**

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

- a. Notwithstanding Part III.A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.
- b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

11. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. PROPER OPERATION AND MAINTENANCE**1. NEED TO HALT OR REDUCE NOT A DEFENSE**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES**a. BYPASS NOT EXCEEDING LIMITATIONS**

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c.

b. NOTICE**(1) ANTICIPATED BYPASS**

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III.D.7.

c. PROHIBITION OF BYPASS

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

- (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
- (c) The permittee submitted notices as required by Part III.B.4.b.

(2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part III.B.4.c(1).

5. UPSET CONDITIONS**a. EFFECT OF AN UPSET**

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b. CONDITIONS NECESSARY FOR A DEMONSTRATION OF UPSET

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset as required by Part III.D.7; and,
- (4) The permittee complied with any remedial measures required by Part III.B.2.

c. BURDEN OF PROOF

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES

Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)

For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS**1. INSPECTION AND ENTRY**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;

- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

5. MONITORING PROCEDURES

- a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. FLOW MEASUREMENTS

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

1. PLANNED CHANGES

a. INDUSTRIAL PERMITS

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,
- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

b. MUNICIPAL PERMITS

Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. ANTICIPATED NONCOMPLIANCE

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. TRANSFERS

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. DISCHARGE MONITORING REPORTS AND OTHER REPORTS

Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR.epa.gov in-box for further instructions. Until you

are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA at the address below. Duplicate copies of paper DMR's and all other reports shall be submitted to the appropriate State agency (ies) at the following address (es):

EPA:

Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:

Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
1190 Saint Francis Drive
Santa Fe, NM 87502-5469

5. ADDITIONAL MONITORING BY THE PERMITTEE

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

6. AVERAGING OF MEASUREMENTS

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

7. TWENTY-FOUR HOUR REPORTING

- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

- (1) A description of the noncompliance and its cause;
- (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,
- (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

- b. The following shall be included as information which must be reported within 24 hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
- (2) Any upset which exceeds any effluent limitation in the permit; and,
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.

- c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. OTHER NONCOMPLIANCE

The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.

9. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES

All existing manufacturing, commercial, mining, and silvacultural permittees shall notify the Director as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2, 4-dinitro-phenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Director.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) Five hundred micrograms per liter (500 µg/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Director.

11. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified.

- a. ALL PERMIT APPLICATIONS shall be signed as follows:

- (1) FOR A CORPORATION - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
 - (b) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.
- (3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

- b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described above;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental

matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

(3) The written authorization is submitted to the Director.

c. CERTIFICATION

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. AVAILABILITY OF REPORTS

Except for applications, effluent data permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. CRIMINAL

a. NEGLIGENT VIOLATIONS

The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

b. KNOWING VIOLATIONS

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. KNOWING ENDANGERMENT

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both.

d. FALSE STATEMENTS

The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)

2. CIVIL PENALTIES

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. ADMINISTRATIVE PENALTIES

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. CLASS I PENALTY

Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

b. CLASS II PENALTY

Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

F. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.
2. ADMINISTRATOR means the Administrator of the U.S. Environmental Protection Agency.
3. APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.
4. APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.
5. BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.
6. DAILY DISCHARGE means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.
7. DAILY MAXIMUM discharge limitation means the highest allowable "daily discharge" during the calendar month.
8. DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
9. ENVIRONMENTAL PROTECTION AGENCY means the U.S. Environmental Protection Agency.
10. GRAB SAMPLE means an individual sample collected in less than 15 minutes.
11. INDUSTRIAL USER means a non-domestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$C_1F_1 + C_2F_2 + \dots + C_nF_n$$

$$F_1 + F_2 + \dots + F_n$$

13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.
14. SEVERE PROPERTY DAMAGE means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff that are discharged to or otherwise enter a publicly owned treatment works.
16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at

the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.

17. UPSET means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

18. FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

19. The term "MGD" shall mean million gallons per day.

20. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).

21. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).

22. MUNICIPAL TERMS

- a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
- c. 24-HOUR COMPOSITE SAMPLE consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
- d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
- e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
- f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.