COOPER TIRE & RUBBER COMPANY
3500 Washington Rd. • Texarkana, AR 71854 • Phone (870) 773-4502

August 28, 2008

Mr. John Bailey
ADEQ – Water Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Cooper Tire & Rubber Co., NPDES Permit AR0038822,
Compliance Meeting Summary

Dear Mr. Bailey,

Cooper Tire & Rubber Company ("Cooper") and FTN Associates Ltd. ("FTN") appreciate the opportunity to meet with you and ADEQ staff on July 30 and July 31, 2008 to discuss NPDES permit AR0038822 for Cooper's Texarkana facility. This letter is a summary of the meetings and request for an extension of CAO LIS 07-013.

During the meetings, Cooper reviewed the Best Management Practices (BMP's) that have been put into place since mid-2003 and that both Cooper and ADEQ agree are effective in reducing non-point source constituents in the plant effluent. In addition to the agreement that the BMPs, implemented by Cooper at a cost of over $3,500,000, have been effective, both ADEQ and Cooper agree that additional time is needed to allow the BMP process to continue without imposing water quality based point source/process water limitations to the stormwater and air conditioner condensate discharges.

Cooper raised the issue of further exploring the applicability of the Arkansas Stormwater Permit (ARR) in regulating these discharges versus the existing individual NPDES permit. The Water Effects Ratio (WER) outlined in the current CAO Compliance Plan was also discussed during our meetings. A summary of the source identification, source control and compliance efforts undertaken by Cooper in relation to Outfall 001 is enclosed. ADEQ indicated during the meetings that it would proceed with the modeling to address COD, BOD and TSS issues in the renewing NPDES permit and to work with FTN in this effort.

As a result of the discussions during the meetings and based upon the effectiveness of the BMPs, Cooper requested and ADEQ agreed with extending for a period of two years, the current CAO in order to (a) continue monitoring and implementing additional BMPs as needed, (b) to identify the source of occasional toxicity, and (c) to conduct additional testing of the base flow and receiving stream. Cooper requests that the documents necessary to extend CAO LIS 07-013 be prepared for our review and comment so that there is no gap in coverage.

Cooper Tire takes its discharge limits very seriously and continues daily inspections of potential sources of contamination to the stormwater discharge. Please contact Charles Allen at (870) 779-4260 or Tom Wood (419) 424-4345 if you have any questions.

Sincerely,

THE COOPER TIRE COMPANY
A Division of Cooper Tire & Rubber Company

John Bodart
Plant Manager

cc: Charles Allen
Tom Wood
Jim Malcolm

Summary of Source Identification, Source Control and Compliance Efforts for Outfall 001

Overview

- Source identification and implementation of Best Management Practices (BMPs) has resulted in a substantial reduction in zinc concentration in stormwater from Outfall 001. However, zinc concentrations in stormwater samples for zinc still exceed some of the limitations in the final permit.
- Investigations into short-term changes in zinc concentrations during stormwater discharges indicate that
    - Peak zinc concentrations can occur at any time during a storm event,
    - The pattern of elevated concentrations is not consistent,
    - There is no early "flush" of high zinc concentrations,
    - Limited data suggest there is not always downstream dilution on reportable events.
- Base flow zinc concentrations comply with all permit limitations.
- Stormwater discharges have shown episodes of acute toxicity to fathead minnows that are not likely due to zinc. Attempts to identify the cause of toxicity to fathead minnows have not been successful due to the low levels of toxicity that have been present in the most recent tests.
- A biological survey of the receiving ditch indicated the presence of aquatic life consistent with expectations based on available habitat.
- Initial attempts to develop a water effects ratio (WER) indicated that the site specific WER in stormwater is approximately 1.
- Chemical Oxygen Demand/Biological Oxygen Demand (COD/BOD) modeling has been completed and is awaiting ADEQ review.
- Treatment of the stormwater is not feasible due mainly to the unavailability of sufficient space to place a suitably sized holding basin or constructed wetland.

A review of sources identified, source reduction measures, FTN's review, recent Outfall 001 zinc concentrations, treatment options, the water effects ratio study, toxicity testing, additional studies, biological evaluation, and recommendations are provided below.

Source Identification

Source identification and reduction has been demonstrated in various formats to the ADEQ in the past, including Semi-Annual Reports, Corrective Action Plans, and meetings (See Attachment A). The primary suspected sources of COD, TSS and zinc concentrations at Outfall 001 are summarized below.

- Accumulations of fugitive carbon black emissions on the roof and elsewhere were a suspected source of the COD and TSS.
- Oil carried from various locations in the facility to the outfall was a suspected source of COD.

- Soil erosion was a suspected source of TSS. Several vegetated areas had become denuded due to high traffic.
- Contaminates from the waste storage areas at the north and south ends of the facility were suspected sources of TSS, COD, and/or zinc.
- Fugitive emissions of zinc oxide were a suspected source of zinc.
- Zinc released from accumulations of rubber dust/grindings on the roof and elsewhere was a suspected source of zinc.
- Zinc released from facility components such as roofing, downspouts, fencing, etc. was a suspected source of zinc. Subsequent testing revealed that these components are not a significant source of zinc.

Source Reduction

Beginning in August 2003, Cooper Tire identified and implemented numerous BMPs and construction projects intended to address the sources identified and reduce COD, TSS, and zinc concentrations at Outfall 001. These BMPs have been implemented at a cost of over $3,500,000. Cooper has continued to monitor and improve BMPs. Below is a summary of BMP's and controls taken to improve the facility's stormwater discharge. Facility pictures showing conditions before and after several of the BMPs were implemented are included in Attachment B.

Dust Collection Systems:

- Improved dust collector monitoring, collection, & maintenance program.
- Conducted evaluations of the adequacy of dust collection capacities.
    - New dust collectors have been installed on #5 and #6 Mixers.
    - New dust collector has been installed at the #7 Pellet Cooler.
    - Hoods installed on mixer dewatering shakers on # 1 and 4 Mixers.

Carbon Black Handling System:

- Installed level indicators on carbon black dust bags.
- Installed conveyor system to re-inject usable carbon black dust back into the mixing system, reducing the potential for dust spillage and reducing landfill disposal.
- Installed cover over the carbon black unloading conveyors.
- Daily checks and cleaning of carbon black handling system continues to be performed.

Mixing Building Roof:

- Installed super sack dispensing systems for injecting zinc oxide into Mixers. This has substantially replaced the use 50 pound bags of zinc oxide thus reducing the potential for fugitive zinc emissions. New, more improved zinc oxide injectors are scheduled to be installed in 2008.
- Dedicated personnel to monitoring and cleaning the plant roof for fugitive dust buildup.
- Outsourced a majority of central compounding to another facility, reducing operator handling and potential for spillage or fugitive emissions.

- Investigating improvements in the management of the remaining central compounding and mixing chemicals to reduce operator handling, the potential for spillage, waste of chemicals, and to reduce/contain the fugitive dust generated from these operations.

Curing / Finishing Roof:

- Dedicated personnel to monitor and clean the plant roof for fugitive dust buildup.

South Trash Compactor Area:

- Expanded the South Trash Compactor Building. This expansion has provided additional containment and further enclosed the processing of plant waste.
- Eliminated the waste handling area on the north end of the facility by consolidating this activity under roof at the south end of the facility.
- Implemented daily cleaning of the south trash compactor and waste handling area.

Scrap Rubber & Components:

- Relocated rubber waste generated by tire grinding operations to South Trash Compactor Building.

Tank Truck & Rail Car Unloading Areas:

- Continued daily inspections of the tank truck and railcar unloading areas.
- Developed and implemented Standard Operating Procedures (SOP) for the inspection of the tank truck and rail car areas.
- Improved drainage in railcar unloading area to eliminate collection of rain water.

Oil Storage Building:

- Continuing routine maintenance of Oil Shed area.
- Expanded the Oil Storage Building. This expansion has provided a roof over all new and used oil containers and reduced potential exposure of oil to storm water.

Tank Farm:

- Developed and implemented SOP for handling oil.
- Implemented daily inspection program for the tank farm.
- Installed a prototype seal less pump on a process oil transfer tank to prevent leaks.
- Installed roof over oil unloading pumps.
- Replaced oil-soaked insulation around storage tanks.
- Implemented inspection procedure for storm water contained in the tank farm prior to its release. Individuals designated to release storm water have been trained on the inspection procedure.

Scrap Metal Hopper:

- Performing routine maintenance of the area to ensure the area is clean of oils or other materials.
- Expanded the roof over the Scrap Metal Hopper. This expansion has provided additional cover over all new and scrap metal.
- Implemented procedures to avoid storing uncovered equipment outside.

Erosion and Sediment Control:

- Upgraded and maintaining the plant grounds to minimize erosion.
- Covered some areas with rock or riprap.
- Removed oil contaminated rock and soil.
- Implemented procedures to regularly clean and maintain the track mobile.

NPDES Outfall 001 Improvements:

- Completed upgrades to Storm Water Outfall 001 to reduce erosion and control sediment, which includes a concrete flume, an automated sampler and flow measurement device.

FTN Review

Cooper contracted with FTN Associates Ltd. to complete an independent review of Cooper's progress toward reducing the possible COD, TSS, and zinc sources to Outfall 001. FTN personnel inspected the site on several occasions. Their findings are summarized below.

- FTN found that the improvements in all areas were effective.
- FTN found no accumulations of fugitive carbon black.
- FTN did not recommend additional BMPs.

Outfall 001 Zinc Concentrations

Effluent monitoring indicates that source control efforts have resulted in a substantial decrease in stormwater zinc concentrations. In particular, examination of Figure 1 indicates:

- Mean concentrations (as indicated by a line of best fit) have decreased to approximately ½ of early values, while maximum concentrations have decreased dramatically.
- Since August, 2006 all stormwater samples have been in compliance with the December – May limitation of 402 µg/L, with approximately ½ of those samples less than the December through May monthly average limitation of 200 µg/L.
- Despite a substantial decrease in stormwater zinc concentrations, most stormwater samples exceed the June – November monthly average criterion of 116 µg/L.

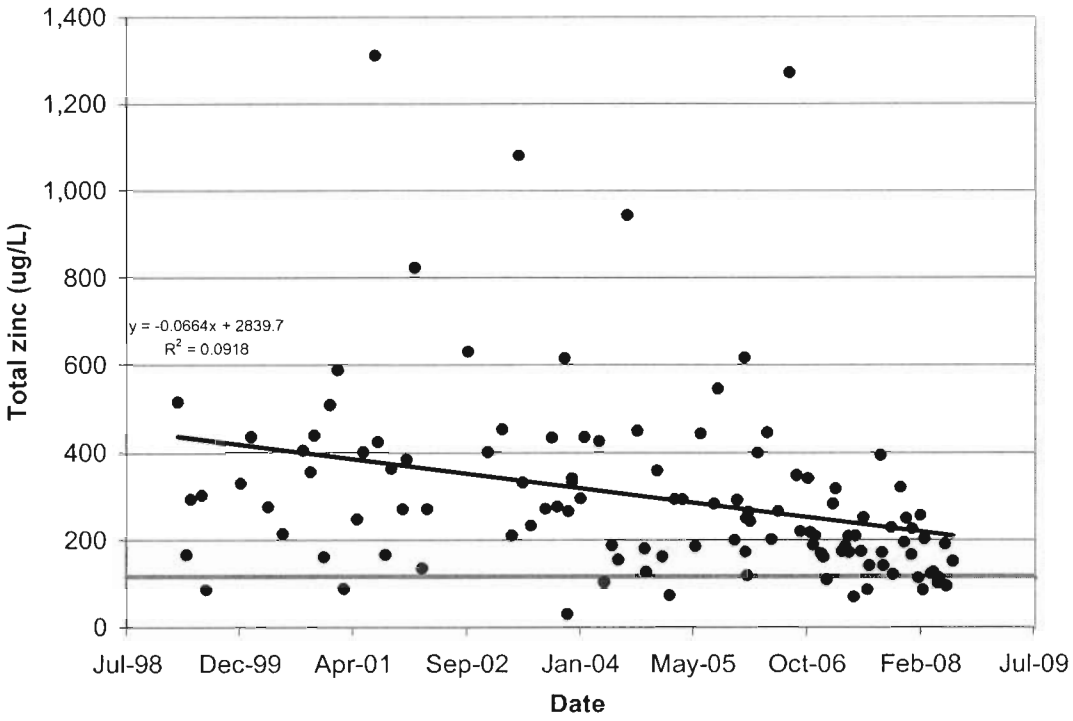


Figure1. Stormwater zinc concentrations at Outfall 001. Red line indicates monthly average permit limit for June – November (116 µg/L). Black line is line of best fit through the mean.

Evaluation of Treatment Options

The feasibility of treatment was evaluated by FTN. In order to provide for a reasonably-sized treatment system, treatment would involve first collecting the water and providing some storage. The size of the holding basin would be limited by the amount of land available in this area. Given this restriction, it would not be possible to collect and treat all of the stormwater.

It might be possible to collect and treat the "first flush" of stormwater runoff that presumably contains the highest zinc concentrations. However, an evaluation of short term changes in zinc concentrations during stormwater discharge events (see Additional Studies below) indicates that the highest zinc concentrations were not necessarily seen in the first flush and that storm events often cause several pulses of stormwater rather than a single pulse of water. In addition, peak stormwater discharges from the facility can exceed 80,000 gpm which further limits the feasibility of this option.

A constructed wetland could provide a relatively low maintenance treatment system. Mainly due to the low cost of operation and maintenance, this system would represent the most cost effective treatment system. However, this option is also limited by the amount of land available in this area. Treatment is considered infeasible due to the lack of space available to construct both an adequately sized holding basin and a constructed wetland.

Water Effects Ratio (WER)

A preliminary evaluation of the potential WER indicated that a WER equal to approximately 2 could be used to justify revised permit limitations. A work plan for estimating the WER was developed and approved by ADEQ as part of the requirements of CAO LIS No. 07-013. The range finding test conducted as part of WER development indicated a WER near unity. A WER near unity would not justify revised permit limitations. Accordingly, WER development was postponed.

Toxicity Testing

Stormwater discharges have shown episodes of acute toxicity to fathead minnows. These episodes of toxicity are not likely due to zinc because the water flea (*Daphnia pulex*), which should show greater sensitivity to zinc, is not affected. Attempts to identify the cause of toxicity to fathead minnows have not been successful due to the low levels of toxicity that has been present in the most recent tests.

Additional Studies

Short-term Changes in Outfall Flows and Zinc Concentrations

Cooper Tire conducted additional studies to evaluate short-term changes in flows and zinc concentrations during stormwater discharge events. The purpose of these studies was to evaluate:

1. The potential for achieving compliance using alternate sampling strategies within the flexibility allowed by the permit,
2. The magnitude and duration of high zinc concentrations to potentially justify a higher, toxicity-based benchmark, and
3. Dilution of the stormwater immediately downstream of the outfall.

Results of these studies indicate that:

1. Peak zinc concentrations can occur at any time during a storm event.
2. The pattern of elevated concentrations is not consistent,
3. There is no early "flush" of high zinc concentrations.
4. Limited data suggests there is not always downstream dilution on reportable events.

Biological Evaluation

Biological sampling was performed to evaluate the aquatic life present in the ditch downstream of the outfall. Benthic invertebrate collections indicated a moderate level of abundance and diversity consistent with expectations based on the small size of the creek and low flows at the time of sampling.

Recommendations for Compliance with Zinc Limitations

Monitoring data indicate a significant trend towards reduced zinc concentrations in the stormwater due to the implementation of BMPs. It is not clear from the monitoring data whether Cooper Tire has attained the maximum reduction in zinc concentrations possible

with existing BMPs. However, it seems unlikely that concentrations will be consistently below the 116 µg/L monthly average needed for consistent permit compliance. Therefore the following actions are proposed:

1. Allow an additional period of monitoring to establish the maximum reduction in zinc concentrations possible with existing BMPs, during which time Cooper Tire will
    a. Continue to further improve BMP effectiveness,
    b. Implement additional BMPs as needed and,
    c. Continue efforts to identify the cause of and eliminate toxicity to fathead minnows,

2. At the end of the monitoring period present scientific evidence to establish a site-specific stormwater benchmark for zinc consistent with best attainable zinc concentrations in the stormwater and a non-toxic discharge.

ATTACHMENT A

List of supporting reports and letters submitted, and meetings conducted under both CAOs.

ATTACHMENT B

Site photos before and after BMPs were implemented.

ATTACHMENT A

Texarkana NPDES Permit Timeline

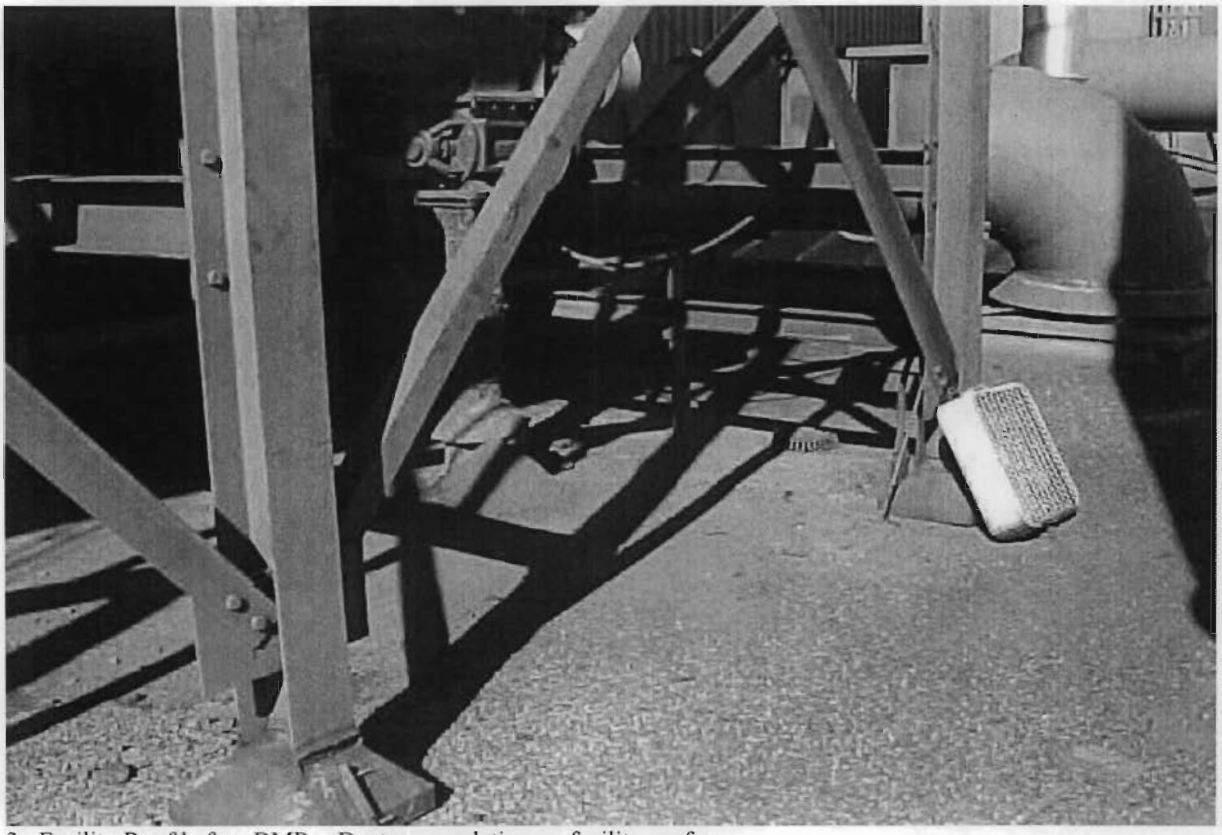
08/28/08	Cooper submits summary of source identification, source reduction, 3rd party evaluations, additional sampling and discharge studies, and request for CAO extension
07/31/08	Meeting w/ ADEQ to discuss amended CAO
07/30/08	Meeting w/ ADEQ to review Zn compliance status and request extension of CAO spring 2009 expiration, COD/TSS concerns
05/01/08	Cooper submits NPDES Permit Renewal Application
04/09/08	Cooper submits Milestone #3 report under CAO LIS No. 07-013
12/27/07	Cooper submits Milestone #2 report under CAO LIS No. 07-013
10/09/07	Cooper submits Milestone #1 report under CAO LIS No. 07-013
08/28/07	FTN Associates submits final Work Plan for Estimating the Water Effect Ratio for Zinc
07/17/07	Cooper submits revised schedule for Compliance Plan
06/28/07	ADEQ letter indicating that compliance schedule in Compliance Plan is deficient
06/19/07	FTN Associates submits Work Plan for Estimating the Water Effect Ratio for Zinc and Zinc Source Control and Treatment
06/08/07	Cooper submits Corrective Action Report and Compliance Plan as required by CAO
02/15/07	ADEQ issues CAO LIS No. 07-013 issued w/ effective date of 4/10/07
09/07/06	Meeting w/ ADEQ to review BMPs implemented, FTN evaluation, Zn compliance status, and proposed third party criterion change
06/30/06	Cooper submits request to issue new Consent Administrative Order
06/27/06	Cooper submits 3rd (final) annual progress report for Zn as required by permit and "Zinc Source Control and Treatment" evaluation conducted by FTN Associates
06/27/06	Cooper submits final semiannual progress report under CAO LIS No. 03-068
12/20/05	Cooper submits semiannual progress report under CAO LIS No. 03-068
12/09/05	Cooper submits Water Shed Calculations as requested in 11/28/05 meeting
11/28/05	Meeting w/ ADEQ to review FTN report: Evaluation of Best Management Practices and Outfall 001 Receiving Stream Water Quality
11/04/05	FTN issues report: Evaluation of Best Management Practices and Outfall 001 Receiving Stream Water Quality
06/24/05	Cooper submits semiannual progress report under CAO LIS No. 03-068
06/24/05	Cooper submits 2nd annual progress report for Zn as required by permit
12/20/04	Cooper submits semiannual progress report under CAO LIS No. 03-068
07/08/04	Cooper submits 1st annual progress report for Zn as required by permit

06/28/04	Cooper submits semiannual progress report under CAO LIS No. 03-068
12/15/03	Cooper submits revised Compliance Plan under CAO LIS No. 03-068
11/5/03	ADEQ letter providing comments on draft Compliance Plan
10/09/03	Cooper submits Compliance Plan under CAO LIS No. 03-068
06/09/03	ADEQ issues CAO LIS No. 03-068 issued w/ effective date of 8/10/03
05/31/03	ADEQ issues renewal NPDES Permit No. AR0038822 with effective date of 7/1/03
04/23/03	Meeting w/ ADEQ to review comments to Draft NPDES Permit and Proposed CAO
04/08/03	ADEQ issues Proposed Consent Administrative Order

ATTACHMENT B

1. Oil Storage Area prior to BMPs. Containers exposed to stormwater.

2. Oil Storage Area after BMPs. Additional cover over containers, all containers within secondary containment.



3. Facility Roof before BMPs. Dust accumulation on facility roof.

4. Facility Roof before BMPs. Dust accumulation on facility roof.

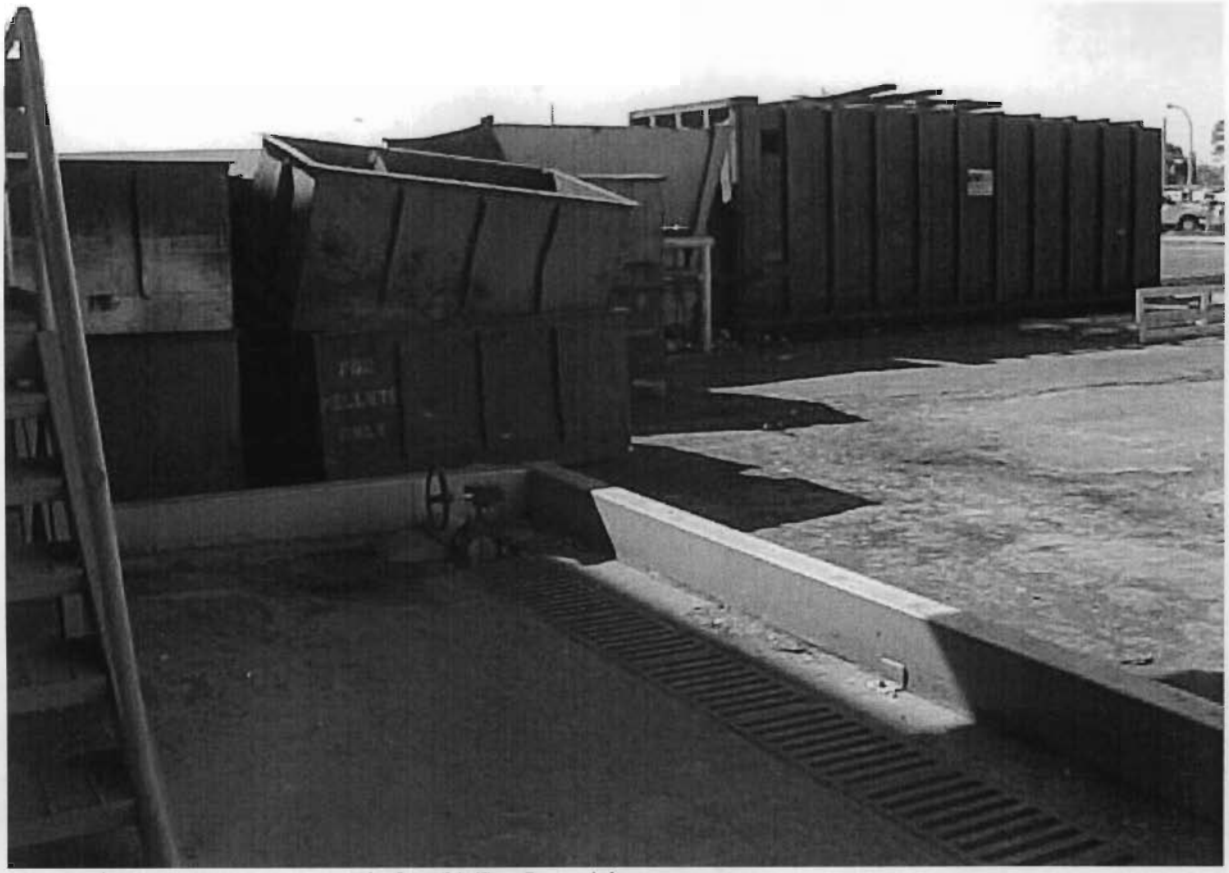
5. Facility roof after BMPs. Improved dust collection and daily roof cleaning.

6. Facility roof after BMPs. Improved dust collection and daily roof cleaning.

7. South Waste Compactor Area prior to BMPs. Dust and Waste potential exposure to stormwater.

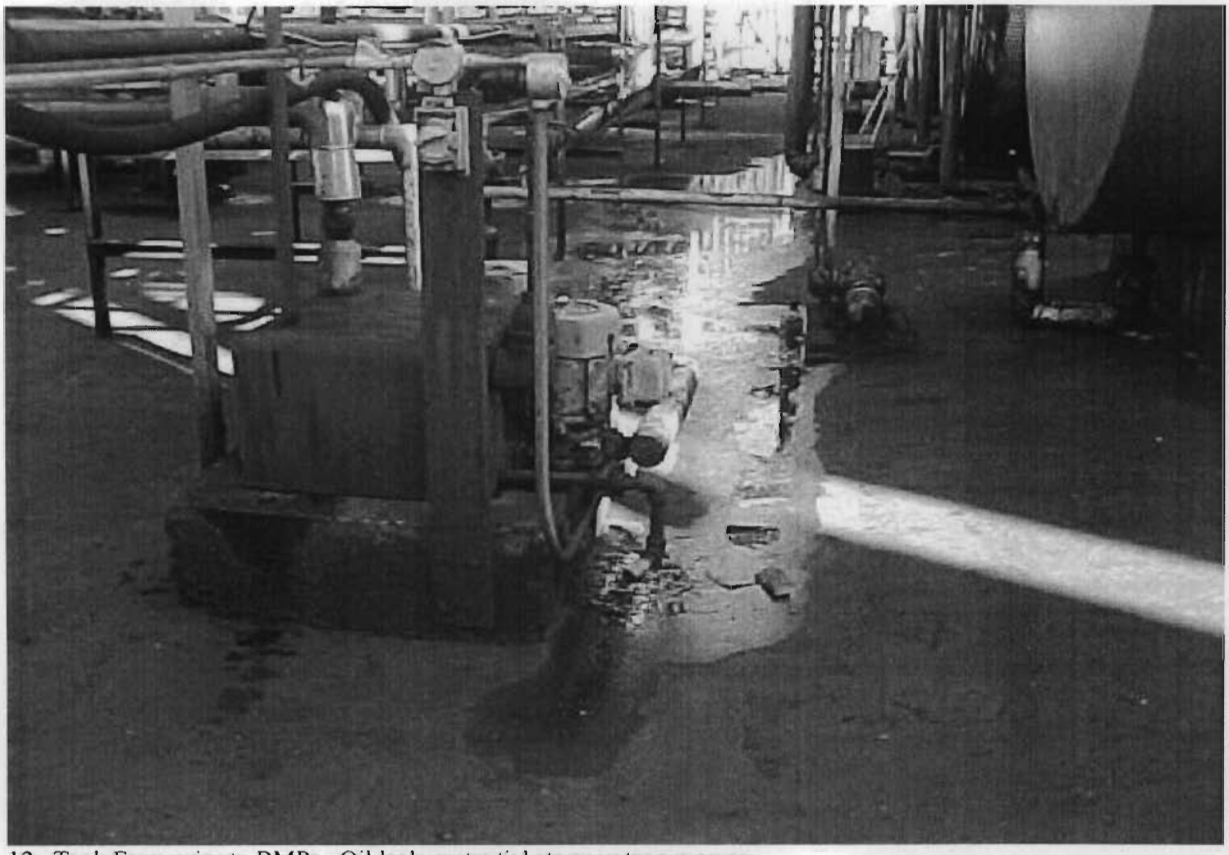
8. South Waste Compactor Area after BMPs. Under roof and daily cleaning.

9. South Waste Compactor Area under roof and secondary containment.



10. North Waste Compactor Area before BMPs. Potential exposure to stormwater.

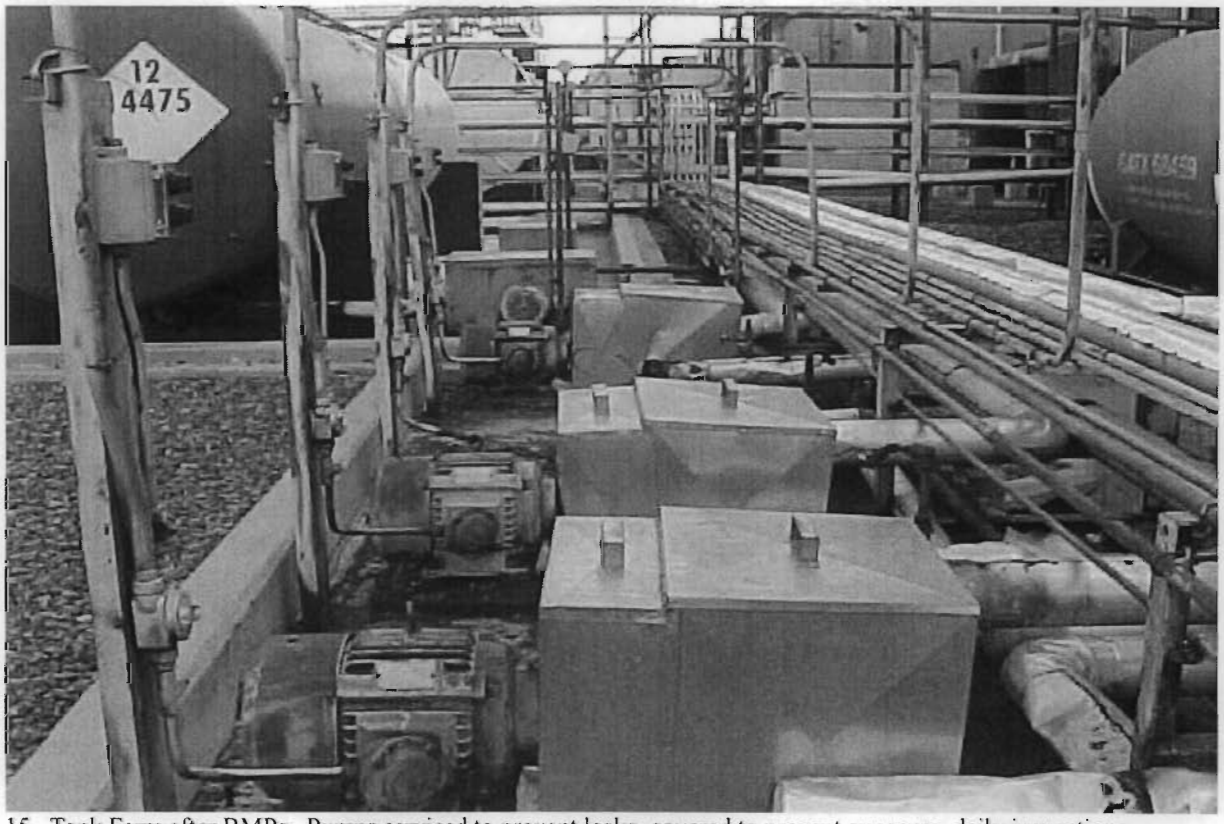
11. North Waste Compactor Area after BMPs. Relocated under cover to South Compactor Area.



12. Tank Farm prior to BMPs. Oil leaks potential stormwater exposure.

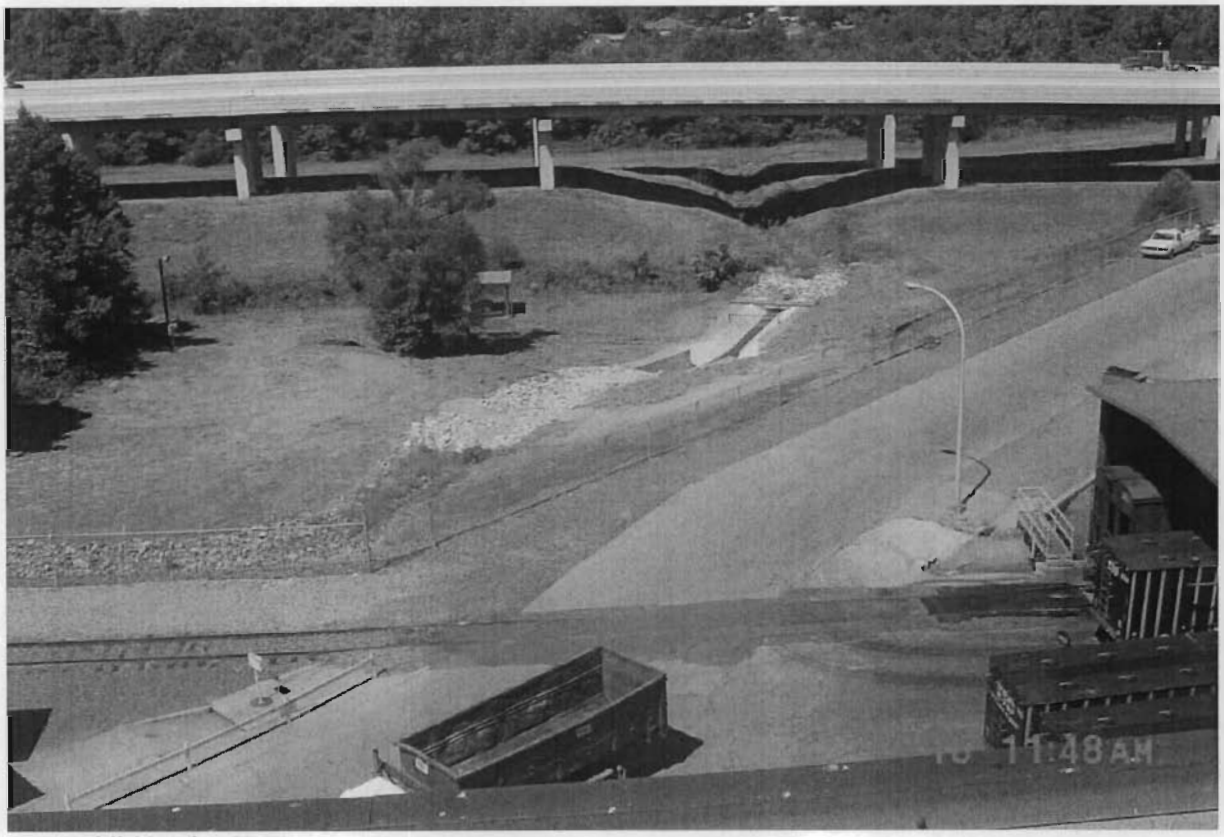
13. Tank Farm after BMPs. Pumps serviced to prevent leaks, covered to prevent exposure, daily inspections.

14. Tank Farm prior to BMPs. Oil leaks potential stormwater exposure.



15. Tank Farm after BMPs. Pumps serviced to prevent leaks, covered to prevent exposure, daily inspections.

16. Outfall 001 prior to BMPs.



17. Outfall 001 after BMPs.