



PACCAR/SITS.13

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

August 5, 1996

Mr. Randall Smith, Director, Hazardous Waste Division
Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

Dear Mr. Smith:

RE: PACCAR Defense Systems Site, Renton, Washington

This letter serves to inform you that construction has been completed at the PACCAR Defense Systems Site in accordance with the PACCAR Cleanup Action Plan dated September 6, 1991. Ecology and PACCAR are currently finalizing long-term monitoring plans. Bioremediation of excavated petroleum-contaminated soil continues in ex-situ land treatment units.

The State of Washington has determined that the completion of the remedial construction at the PACCAR Defense Systems Site renders the conditions at the site protective of human health and the environment. Therefore, construction of all remedial actions required by the Cleanup Action Plan is complete and no further construction is anticipated. Confirmational monitoring will be performed.'

Attached is a copy of the Preliminary Close-Out Report, prepared by Ecology's Site Manager, David L. South.

Neither this letter nor the Preliminary Close-Out Report constitute certification pursuant to Section XXVI of the Consent Decree between Ecology and PACCAR regarding the PACCAR Defense Systems site that the provisions of the Consent Decree have been satisfactorily completed. The decree shall remain in effect until the conditions of Section XXVI of the Consent Decree have been met.

Mr. Randall S ..
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Should you have any questions, please call Dr. South in our Northwest Regional Office at (206) 649-7200.

Sincerely,

Mary E. Burg

Mary E. Burg, Program Director
Toxics Cleanup Program

DLS:dls
Enclosure

cc: Robert K. Butler, PACCAR
PACCAR/SIT5.13

SUPERFUND PRELIMINARY CLOSE-OUT REPORT
(Long-Term Remedial Action)
PACCAR Defense Systems Site
Renton, Washington

I. INTRODUCTION

This Preliminary Close-Out Report documents that construction activities have been substantially completed for the PACCAR Defense Systems site. The Washington State Department of Ecology conducted a pre-final inspection of this long-term remedial action on July 3, 1996, and determined that PACCAR has constructed the remedial action in accordance with the PACCAR Defense Systems Site Final Cleanup Action Plan dated September 6, 1991. Final bioremediation of petroleum contaminated soils excavated from the site is occurring in on-site land treatment units, and is expected to be complete by November 8, 1997. Site maintenance and monitoring are underway.

II. SUMMARY OF SITE CONDITIONS

Site Description and History

The site is about 82 acres in area and is located in the City of Renton, Washington. PACCAR began operations in 1907 as Pacific Car and Foundry, operating a foundry and rail car manufacturing plant on the south 40 acres of the site. Over the years the facility expanded northward and eastward to cover the current 82 acres, with the last property acquisition occurring in the late 1960's. The company's name was changed to PACCAR Defense Systems in the early 1980's. At its peak, the facility employed about 2,100 workers engaged in building rail cars, Sherman tanks, and other military vehicles. It quit making rail cars in 1984. From 1984 to 1988, military vehicles, castings, forgings, and other industrial products were produced at the site. In 1988, manufacturing operations ceased and decommissioning of the plant began.

Remedial investigations and feasibility studies were conducted in the late '80s and early '90s. Remediation commenced in 1991, with emphasis on the north half of the site. PACCAR wished to construct a new truck assembly plant. In 1993, the new Kenworth Renton Assembly Plant began production.

Conclusions of Studies Conducted at the Site

During operations, soils at the site became contaminated with arsenic, chromium, lead, carcinogenic polyaromatic hydrocarbons, PCBs, and petroleum products. These soils posed potential risks to human health via direct contact and generation of contaminated dust. Some metals and organic compounds migrated into the ground water; there was a potential for heavy metals and PCBs to be transported off-site by surface water.

No immediate threat to human health or to the Renton well field from the site was found. The site, if unremediated was found to represent a low, long-term risk to human health and the environment. The following actions have been completed to mitigate the low, long-term risk:

Soil: Soil exceeding site-specific hot-spot action levels has been excavated and treated on site. Soil with metals contamination (arsenic, chromium, and lead) was stabilized and placed beneath either asphalt-covered parking areas or one foot of imported, clean structural fill. Soil with petroleum contamination was bioremediated and placed beneath structural fill cover. Excavation of all known areas of soil with high levels of contamination is complete.

Remediation of all known soil hot-spots was completed on the north half of the site during 1993 prior to opening of the new Kenworth Renton Assembly Plant. All remaining soil remediation work is on the south half of the site. This work involves bioremediation in above-ground land treatment units with final placement beneath fill cover. Placement of soil is done after performance monitoring demonstrates bioremediation has been effective. Bioremediation is expected to be complete by November 8, 1997.

A small volume of soils containing carcinogenic polyaromatic hydrocarbons and PCBs could not be treated on-site. These soils were removed and sent by truck to a permitted disposal facility.

Groundwater: The groundwater at the site contains low levels of contamination which are decreasing. The soil cleanup is expected to cause contamination levels to further decrease, below Safe Drinking Water Act Maximum Contaminant Levels. The ground water will be monitored to ensure this decrease occurs. If it appears that contaminant levels will

not decrease to below Maximum Contaminant Levels set by the Safe Drinking Water Act within a reasonable time frame, the need for additional actions will be considered.

Surface Water: Surface water leaving the site will be monitored to ensure that it meets state and federal water quality standards.

Sediment: PCB-contaminated sediment in the main drainage ditch on site was excavated and disposed of off-site at a permitted facility. The drainage ditch no longer exists due to site regrading for construction of the new Kenworth Renton Assembly Plant.

Air Quality Monitoring: Air quality monitoring was performed on a weekly basis during construction activities. No exceedences were observed.

III. DEMONSTRATION OF QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) FROM CLEANUP ACTIVITIES

All sample collection activities at the site were conducted in accordance with quality assurance procedures. References documenting the procedures are presented in Attachment 1. The methods used to analyze selected parameters were carried out according to EPA Contract Laboratory Procedures (CLP) where applicable. For parameters not covered under CLP, standard EPA methods were selected. Analytical results were validated. Data were reviewed according to EPA functional guidelines for data violations.

Ecology found the QA/QC program utilized through the remedial action was sufficiently rigorous and was adequately complied with to enable Ecology to determine that analytical results reported are accurate to the degree needed to assure satisfactory execution of the remedial action, consistent with the Cleanup Action Plan.

IV. ACTIVITIES AND SCHEDULE FOR SITE COMPLETION

EPA determination of construction completion at the site shall be documented by EPA approval of this Preliminary Close Out Report. Following such documentation, determination shall be made by the Washington State Department of Ecology that the remedy is fully operational and functional (O&F). Pursuant to 40 CFR 300.435(f)(2), "A remedy becomes

operational and functional either one year after construction is complete or when the remedy is determined concurrently by EPA and the State to be functioning properly and is performing as designed, whichever is earlier." EPA and the State shall make a joint O&F determination based upon review and interpretation of analytical monitoring data results. Following the O&F determination, the following activities will be completed according to the schedule described below:

Task	Estimated Completion Date
Complete bioremediation of excavated soil	1997
Ground Water Monitoring	Ongoing
Surface Water Monitoring	Ongoing
Structural Fill Monitoring	Ongoing

Periodic review of the cleanup action will be conducted no less frequently than every five years after the initiation of the cleanup action as specified in WAC 173-340-420.

This Preliminary Close-Out Report does not constitute certification pursuant to Section XXVI of the Consent Decree between Ecology and PACCAR regarding the PACCAR Defense Systems site that the provisions of the Consent Decree have been satisfactorily completed. The decree shall remain in effect until the conditions of Section XXVI of the Consent Decree have been met.

Mary E. Burg
Mary E. Burg
Program Manager, Toxics Cleanup Program
Washington State Dept. of Ecology

5 August 1996
Date

Attachment 1

The following references describe quality assurance procedures for all sample collection activities at the PACCAR Renton National Priority List site. The procedures were used for the following sampling activities:

- Hot spot excavation side wall and bottom sampling,
 - Soil stockpile sampling,
 - Lead treatment unit performance sampling, and
- Soil solidification performance testing.

References:

Ecology, 1991, Washington State Department of Ecology. final Cleanup Action Plan, PACCAR Defense Systems Site, Renton, Washington. September 1, 1991.

Hart Crowser and SSOE, 1991. Plans and Specifications for Phase IIB Work: soil Excavation and Stockpiling, and North Site Grading and Filling. July 29, 1991.

Hart Crowser, 1991. Engineering Design Report, Volume A. Phase I Remediation Work: PCB Remediation, West Parking Lot Site Work, Houser Way Storm Sewer Bypass, and South Site Storm Sewer Intercept, PACCAR Renton Site. August 20, 1991.

Hart Crowser, 1991. Engineering Design Report, Volume B. North Site Demolition and South Site Demolition, PACCAR Renton Site. Prepared for PACCAR Inc. August 14, 1991.

Hart Crowser, 1991. Engineering Design Report, Volume C. Phase IIB Remediation Work: Soil Excavation and Stockpiling, and North Site Grading and Filling, PACCAR Renton site, Renton, Washington. Prepared for PACCAR Inc. September 6, 1991.

Hart Crowser, 1991. Engineering Design Report Volume D. Phase III and Phase IV Remediation Work: Soil Treatment by Solidification and Biotreatment, PACCAR Renton Site. Prepared for PACCAR Inc. December 17, 1991.

Hart Crowser, 1991. Plans and Specifications for Phase III Work: Solidification Treatment of Hot Spot Soils. October 30, 1991.

Hart Crowser, 1992. Engineering Design Report, Volume D. Supplemental Information Regarding Performance Monitoring of Soil Biotreatment, PACCAR Renton Site. Prepared for Washington State Department of Ecology. April 21, 1992.

Hart Crowser, 1993, Replacement Pages for Biotreatment Performance Monitoring Plan, PACCAR Renton Site. Prepared for Washington State Department of Ecology. March 26, 1993.