



## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 ♦ 1751 CONG. W. L. DICKINSON DRIVE 36109-2608  
MONTGOMERY, ALABAMA 36130-1463  
(334) 271-7700

JAMES W. WARR  
DIRECTOR

FOB JAMES, JR.  
GOVERNOR

September 30, 1998

### MEMORANDUM

TO: Wm. Gerald Hardy, Chief *WGH 9/30/98*  
Hazardous Waste Branch  
Land Division

THRU: Stephen A. Cobb, Chief *SAC 9/30/98*  
Industrial Facilities Section  
Hazardous Waste Branch  
Land Division

FROM: S. Scott Story *SSS 9/30/98*  
Industrial Facilities Section  
Hazardous Waste Branch  
Land Division

RE: Evaluation of the status of Stallworth Timber Company under the  
RCRIS Corrective Action Environmental Indicator Event Codes (CA  
725 and CA 750)  
U.S. EPA I.D. No. ALD 058 223 371

Facsimiles: (334)  
Administration: 271-7950  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Education/Outreach: 213-4399

### I. PURPOSE OF MEMORANDUM

This memorandum is written to formalize an evaluation of the status of Stallworth Timber Company, Beatrice, Alabama, in relation to the following corrective action event codes defined in the Resource Conservation and Recovery Information System (RCRIS):

- 1) Human Exposures Controlled Determination (CA725),
- 2) Groundwater Releases Controlled Determination (CA 750).

Concurrence by the Hazardous Waste Branch Chief is required prior to entering these event codes into RCRIS. Your concurrence with the interpretations provided in the following paragraphs and the subsequent recommendations is satisfied by dating and signing above. See Memo Attachment 1 for more specific information of the RCRIS definitions for CA725 and CA750.



**II. HISTORY OF ENVIRONMENTAL INDICATOR EVALUATIONS AT THE FACILITY AND REFERENCE DOCUMENTS**

This particular evaluation is the first evaluation performed by ADEM for Stallworth Timber Company, Beatrice, Alabama. The evaluation, and associated interpretations and conclusions on contamination, exposures and contaminant migration at the facility, is based on information obtained from the following documents:

Task III RCRA Facility Investigation Plan	December 1997
Semi-Annual Groundwater Monitoring Report	July 1998
Post-Closure Permit Application	July 1992
Task I RCRA Facility Investigation Plan	September 1989

**III. FACILITY SUMMARY**

The Stallworth Timber Company (Stallworth), Beatrice facility is a 12-acre site located in north central Monroe County, approximately 65 miles southwest of Montgomery and 70 miles north of Mobile. The facility was originally constructed in 1966 as a wood-treating facility using creosote as a preservative. In 1972, a third wood-treating cylinder was installed which utilizes pentachlorophenol (PCP) as a wood preservative. In 1991, Stallworth dedicated one of these cylinders for pressure treating wood using copper chromated arsenate (CCA). This CCA process is a closed loop operation and produces no effluent. In 1992, Stallworth installed a 400-horsepower wood fired boiler that uses wood chips from the debarking process for fuel. Stallworth received ADEM Permit No. 106-S006-X001 for operation of the boiler. No hazardous waste or material is burned.

Previously, the wastewaters from the PCP and creosote processes were discharged to separate evaporation ponds where the product was recovered. With the addition of a new water process system in 1984, discharge to the creosote pond was discontinued. Similarly, the discharge of water to the PCP pond was discontinued with the addition of an aboveground steel evaporation tank. The PCP and creosote ponds were closed in 1987. In 1995, Stallworth received ADEM Post Closure Permit No. ALD 058 223 371 for the two ponds closed as landfills.

The waste streams associated with Stallworth's operations are defined as listed wastes K001, F032, F034, and F035. Any process wastewater or residuals generated are either properly collected, containerized and removed within 90 days; reused; or treated in a closed system. Stallworth's current operations do not require a hazardous waste treatment, storage or disposal permit.

#### **IV. CONCLUSION FOR CA725**

The RCRIS code CA725 is designed to measure human exposures in all environmental media over the entire facility. As discussed in the media by media evaluation in Attachment 2, the following conclusions are made. Groundwater onsite and offsite is contaminated above relevant action levels and no controls are currently in place to recover contaminants and/or prevent further migration of this contamination. Collected surface water and sediment samples from Huffman Creek have been determined to be contaminated above relevant action levels during the Phase I RFI and human exposures to this contamination are not controlled. Soil samples collected in 1989 confirmed the presence of K001 constituents in soils as well as the presence of free phase creosote and PCP in the shallow subsurface west of the closed impoundments. Air quality was not addressed during the Task I RFI.

All environmental media have been impacted and either; no controls or remediation activities have been instituted to address contamination in a given media or, no documentation has been presented to indicate that remediation activities conducted subsequent to the Task I RFI have been effective in controlling contamination. Based on the available information it is recommended that **CA725 NO** be entered into RCRIS.

#### **V. CONCLUSION FOR CA750**

The status codes for CA750 are designed to assess the impact the facility has had on groundwater and if impacted, whether current measures are controlling the physical movement of contaminants. As discussed in the media by media explanation in Attachment 2 and stated in Section IV, groundwater is contaminated above relevant action levels and no controls are currently in place. It is recommended that **CA750 NO** be entered into RCRIS.

#### **VI. SUMMARY OF FOLLOW-UP ACTIONS**

The facility has received approval for implementation of a Task III RFI. This investigation is designed to assess creosote and PCP contamination in subsurface soils, groundwater, and in the Huffman Creek and related drainage areas. Air quality will also be examined during the investigation.

The facility is also performing corrective action/stabilization activities as part of the Post-Closure Permit requirements. Currently, the facility is manually removing NAPL from monitoring wells and an intercept basin to reduce the amount of NAPL contamination in advance of future corrective action activities. These future corrective action activities will include installation of a groundwater treatment system, installation of a seepage drain for groundwater extraction, and the treatment of contaminated soil.

## MEMO ATTACHMENT 1

### A. HUMAN EXPOSURES CONTROLLED DETERMINATION (CA725)

There are five (5) national status codes under CA725. These status codes are:

- 1) YE Yes, applicable as of this date [i.e., human exposures are controlled as of this date].
- 2) NA Previous determination no longer applicable as of this date.
- 3) NC No control measures necessary.
- 4) NO Facility does not meet definition [i.e., human exposures are not controlled as of this date].
- 5) IN More information needed.

The first three (3) status codes listed above were defined in January 1995 Data Element Dictionary for RCRIS. The last two (2) status codes were defined in June 1997 Data Element Dictionary.

**Note that CA725 is designed to measure human exposures over the entire facility (i.e., the code does not track SWMU specific actions or success). Every area at the facility must meet the definition before a YE or NC status code can be entered for CA725. The NO status code should be entered if there are current unacceptable risks to humans due to releases of hazardous wastes or hazardous constituents from any SWMU(s) or AOC(s). The IN status code is designed to cover those cases where insufficient information is available to make an informed decision on whether or not human exposures are controlled. If an evaluation determines that there are both unacceptable and uncontrolled current risks to humans at the facility (NO) along with insufficient information on contamination or exposures at the facility (IN), then the priority for the EI recommendation is the NO status code.**

In Region 4's opinion, the previous relevance of NA as a meaningful status code is eliminated by the June 1997 Data Element Dictionary's inclusion of NO and IN to the existing YE and NC status codes. In other words, YE, NC, NO and IN cover all of the scenarios possible in an evaluation or reevaluation of a facility for CA725. Therefore, it is Region 4's opinion that only YE, NC, NO and IN should be utilized to categorize a facility for CA725. No facility in Region 4 should carry a NA status code.

**B. GROUNDWATER RELEASES CONTROLLED DETERMINATION (CA750)**

There are five (5) status codes listed under CA750:

- 1) YE Yes, applicable as of this date [i.e., groundwater releases are controlled as of this date].
- 2) NA Previous determination no longer applicable as of this date.
- 3) NR No releases to groundwater.
- 4) NO Facility does not meet definition [i.e., groundwater releases are not controlled as of this date].
- 5) IN More information needed.

The first three (3) status codes listed above were defined in January 1995 Data Element Dictionary for RCRIS. The last two (2) status codes were defined in June 1997 Data Element Dictionary.

The status codes for CA750 are designed to measure the adequacy of actively (e.g., pump and treat) or passively (e.g., natural attenuation) controlling the physical movement of groundwater contaminated with hazardous constituents above relevant action levels. The designated boundary (e.g., the facility boundary, a line upgradient of receptors, the leading edge of the plume as defined by levels above action levels or cleanup standards, etc.) is the point where the success or failure of controlling the migration of hazardous constituents is measured for active control systems. **Every contaminated area at the facility must be evaluated and found to have the migration of contaminated groundwater controlled before a "YE" status code can be entered.**

**If contaminated groundwater is not controlled in any area(s) of the facility, the NO status code should be entered.** If there is not enough information at certain areas to make an informed decision as to whether groundwater releases are controlled, then the IN status code should be entered. If an evaluation determines that there are both uncontrolled groundwater releases for certain units/areas (NO) and insufficient information at certain units/areas of groundwater contamination (IN), then the priority for the EI recommendation should be the NO status code.

In Region 4's opinion, the previous relevance of NA as a meaningful status code is eliminated by the June 1997 Data Element Dictionary's inclusion of NO and IN to the existing YE and NR status codes. In other words, YE, NR, NO and IN cover all of the scenarios possible in an evaluation or reevaluation of a facility for CA750. Therefore, it is Region 4's opinion that only YE, NR, NO and IN should be utilized to categorize a facility for CA725. No facility in Region 4 should carry a NA status code.

## MEMO ATTACHMENT 2

### MEDIA BY MEDIA DISCUSSION OF CONTAMINATION AND THE STATUS OF PLAUSIBLE HUMAN EXPOSURES

#### GROUNDWATER:

The lithologies immediately underlying the Stallworth site in Beatrice, Alabama consist of interfingered clays, silts, and sands. Underlying the treatment plant and the areas to the east is a coarse-grained tan sand. A relatively thin layer of fill material covers the area to the west of the treatment plant. The fill layer has been identified as the upper zone of the surficial aquifer. Immediately underlying this upper layer is a highly organic, rooted silty clay (semiconfining layer) ranging in thickness from about 1.0 to 7.5 feet. The rooted silty clay is underlain by a gray-to-white clayey and silty sand with interspersed sandy layers. Underlying this clay to silty sand is a highly plastic, stiff orange-gray clay. This stiff clay layer is underlain by a series of thinly bedded, fine silty sands and silty sands which forms the lower aquifer.

The upper zone of the surficial aquifer is composed of coarse, tan sand and fill material. The thickness of the upper aquifer ranges from 2 feet in the southwest section of the site to 23 feet northeast of the treatment facility. The groundwater flow in the upper zone of the surficial aquifer is westward toward Huffman Creek. The average linear groundwater velocity in this zone is estimated to be about 75 feet per year.

The lower zone of the surficial aquifer consists of gray-to-white, clayey-to-silty-sands with locally interlayered yellow-to-orange coarse sands. The horizontal direction of groundwater flow is west-southwest toward Huffman Creek. The average linear groundwater velocity in this zone is estimated to be about 1,200 feet per year.

The lower aquifer consists of a series of thinly interlayered silty clays and fine sands. Similar to the upper aquifer's flow direction, the horizontal direction of groundwater flow is west-southwest toward Huffman Creek.

Groundwater assessment work at Stallworth has identified contamination in the surficial aquifer. Free phase creosote and PCP occur in the upper zone of the surficial aquifer. Dissolved K001 constituents have been identified in groundwater in the lower surficial aquifer. The vertical migration of the free product in the upper zone is restricted by a gray-to-black, organic rich silty clay which underlies the entire area west of the treatment facility. A stiff gray clay separates the uppermost aquifer from the lower aquifer. Monitoring wells installed in the lower aquifer indicate the vertical extent of contamination is restricted to the surficial aquifer. The horizontal extent of the contaminants appears to be restricted to the surficial aquifer between the treatment plant and Huffman Creek.

**Based on the finding presented above, groundwater is contaminated above relevant action levels. Because effective controls are not in place, offsite contamination could occur. Therefore human exposures are not controlled.**

**SOIL:**

Soil boring results for the RFI indicate the presence of free creosote and PCP in the upper zone of the surficial aquifer west and slightly north of the treatment facility. The free product appears to migrate to the west-southwest and has been observed discharging into Huffman Creek along the fill-clay interface. Soil and water contamination is present along the west side to Huffman Creek, but appears to be localized near the edge of the bank.

**As discussed above, surficial soils and sediments onsite are contaminated above relevant action levels and human exposures are not controlled.**

**AIR:**

Releases to air from soil, groundwater and /or surface water contaminated by SWMUs and/or AOCs at the facility has yet to be determined. Air monitoring at the facility is scheduled to be completed as part of the Task III RFI process.

**Because of the uncertainty regarding the presence or absence of releases of the contaminants to the atmosphere, an opinion on plausible human exposures to air releases is not possible at this time.**

**SURFACE WATER:**

The facility stormwater system is through an open concrete-lined ditch in the immediate plant area and steel culverts beyond the plant to an open ditch that drains to Huffman Creek. PCP and creosote constituents have been detected in the sediment and surface water of Huffman Creek up to 3.5 miles downstream. The creek is not known to be used as a potable water or irrigation source, ~~nor~~<sup>R</sup> does the water flow into any immediate water reservoirs.

**As discussed above, surface water and sediments onsite and offsite are contaminated above relevant action levels and human exposures are not controlled.**