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**MEMORANDUM** 

September 28, 1999

TO:

JAMES W. WARR

DIRECTOR

Stephen A. Cobb, Chief 4

Hazardous Waste Branch

Land Division

FROM:

Chip Crockett Ht

Industrial Facilities Section Hazardous Waste Branch

Land Division

RE:

Evaluation of Huxford Pole & Timber Company status under the RCRIS Corrective Action Environmental Indicator Event Codes (CA725 and CA750)

EPA I.D. Number: ALD 008 185 407

#### I. **PURPOSE OF MEMO**

This memo is written to formalize an evaluation of Huxford Pole & Timber Company's (Huxford) status in relation to the following corrective action event codes defined in the Resource Conservation and Recovery Information System (RCRIS):

- 1) Current Human Exposures Under Control (CA725),
- 2) Migration of Contaminated Groundwater Under Control (CA750).

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 at the appropriate location within Attachments 1 and 2.

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

This evaluation is the second environmental indicator evaluation for Huxford. The original evaluation, dated September 5, 1997, concluded that human exposures and groundwater releases were <u>not</u> controlled at that time. This second evaluation is based both additional information that has become available as well as updated environmental indicator guidance provided by the U.S. Environmental Protection Agency.

### III. FACILITY SUMMARY

Huxford Pole & Timber Company is located along Alabama Highway 21 in the town of Huxford, Escambia County, Alabama. Huxford operates a wood treatment facility which produces preserved wooden poles for the electrical power and communication industries. The facility began operations in 1971 using Creosote-based wood preservatives. Pentachlorophenol-based treatment solutions were added in 1974 and an additional treatment unit employing Chromated Copper Arsenate (CCA) solutions was constructed in 1991.

Hazardous wastes generated at the site include EPA Hazardous Waste No. K001, generated when treatment vessels are periodically cleaned out. Prior to 1987, these wastes were managed in four, unlined surface impoundments. These impoundments were closed with wastes left in place in 1987. A groundwater quality assessment was completed in 1992 and identified a significant plume of contamination emanating from the closed impoundments. An Alabama Hazardous Wastes Management and Minimization Act (AHWMMA) post-closure permit requiring post-closure care and groundwater monitoring was issued August 22, 1995. A permit modification incorporating corrective measures for groundwater was issued September 30, 1996. A groundwater extraction and treatment system went online December 4, 1997, and has been in continuous operation to date.

A RCRA Facility Assessment (RFA) was completed in 1988. As a result of the RFA, 36 Solid Waste Management Units (SWMUs) and 1 Area of Concern (AOC) were identified. Five SWMUs and 1 AOC were identified as requiring additional investigation. A RCRA Facility Investigation (RFI) was initiated, the results of which are detailed in the RCRA Facility Investigation Report, dated November 1, 1998. Based on the data provided in the RFI Report, a Corrective Measures Study (CMS) for three SWMUs and one AOC was initiated. The CMS was initially submitted by Huxford to the Department on March 5, 1999. The Department reviewed the report and issued comments on August 12, 1999. Huxford requested an extension of the response date in a letter dated August 30, 1999, which was granted on September 8, 1999. The final CMS is due by October 8, 1999.

### IV. CONCLUSION FOR CA725

As indicated in Attachment 1, the appropriate status code of the RCRIS Human Exposures Controlled Environmental Indicator code (CA 725) is "YE" or "yes". The basis for this determination is presented in Attachment 1.

### V. CONCLUSION FOR CA750

As indicated in Attachment 2, the appropriate status code of the RCRIS Groundwater Releases Controlled Environmental Indicator code (CA 750) is "YE" or "yes". The basis for this determination is presented in Attachment 2.

### VI. SUMMARY OF FOLLOW-UP ACTIONS

As previously indicated, control measures for groundwater releases are currently in place as well as a program for monitoring its effectiveness. As required by the permit, this is to continue throughout post-closure care period until the groundwater protection standard has been achieved at the compliance point. A corrective measures study is currently underway for three SWMUs and one AOC, which is due to be completed by October 8, 1999. The final remedy will likely involve the use of institutional restrictions on current and future land uses. An active or invasive corrective measure (i.e., excavation or in-situ treatment) is not anticipated at this time.

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Attachments: 1. CA725: Current Human Exposures Under Control

2. CA750: Migration of Contaminated Groundwater Under Control

#### ATTACHMENT 1

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

#### **RCRA Corrective Action**

Environmental Indicator (EI) RCRIS Code (CA725) Current Human Exposures Under Control

Address:	Huxford Pole & Timber Company AL Hwy 21, Huxford, Escambia County, Alabama ALD 008 185 407
Management	ble relevant/significant information on known and reasonably suspected releases to soil, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in ination?
<u>X</u>	If yes - check here and continue with #2 below,
	If no - re-evaluate existing data, or
	If data are not available skip to #6 and enter "IN" (more information needed) status code.
	Management this EI determ

#### **BACKGROUND**

## Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

### Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### Relationship of EI to Final Remedies

While final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, (GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

#### **Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in the RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be "contaminated" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

Media	Yes	No	?	Rationale/Key Contaminants
Groundwater	X			Wood treating related constituents and breakdown products, e.g. Pentachlorophenol, Naphthalene.
Air (indoors) <sup>2</sup>		Х		
Surface Soil (e.g., <2 ft)	X			Primarily Pentachlorophenol.
Surface Water		Х		
Sediment		Х		
Subsurface Soil (e.g., >2 ft)	Х			Primarily Pentachlorophenol.
Air (outdoors)		Х		

	If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.
_X_	If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.
	If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): Soil and groundwater impacts are confirmed based on data from the Groundwater Quality Assessment, dated January 27, 1992, semi-annual corrective action effectiveness reports from April 1996 through April 1999, and the RCRA Facility Investigation Report, dated November 1, 1998.

<sup>&</sup>quot;Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above and adjacent to groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

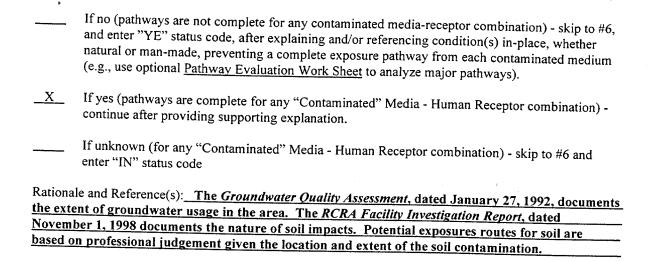
Summary Exposure Potential <u>Human</u> R	Pathway Eva	luation Table der Current (	ondition	s)			
"Contaminated" Media	Residents	Workers	Day- Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	No	No	No	No	No	No	No
Air (indoors)			***************************************	N/C			L
Soil (surface, e.g., <2 ft)	No	Yes	No	Yes	Yes	No	No
Surface Water		· · · · · · · · · · · · · · · · · · ·	<u>l</u>	N/C			
Sediment				N/C			
Soil (subsurface, e.g., >2 ft)	No	No	No	No	Yes	No	No
Air (outdoors)				N/C			

## Instructions for Summary Exposure Pathway Evaluation Table:

- 1. For Media which are not "contaminated" as identified in #2, please strike-out specific Media, including Human Receptors' spaces, or enter "N/C" for not contaminated.
- 2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have assigned spaces in the above table. While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)



4	greater in n "levels" (us	posures from any of the complete pathways identified in #3 be reasonably expected to be at" (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) nagnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable sed to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps h low) and contaminant concentrations (which may be substantially above the acceptable ould result in greater than acceptable risks)?
	<u>X</u>	If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."
		If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."
	Rationale ar	If unknown (for any complete pathway) - skip to #6 and enter "IN" status code
	activities tv	nd Reference(s): Soil exposures to workers are not expected to be significant since site
	in the areas	pically do not involve soil disturbance or exposure. No additional construction is planned of soil contamination and future construction will likely be restricted through
	institutiona	l controls as part of the final remedy. Exposures to trespassers are expected to be low due
	to the site's	remote location and low surrounding population. Enhanced security procedures are
	proposed fo	r the final remedy and will likely mitigate any future exposures.
		- July integate any future exposures.

If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5	Can the "signifi	cant" exposures (identified in #4) be shown to be within acceptable limits?
		If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).
		If no (there are current exposures that can be reasonably expected to be "unacceptable")-continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.
		If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code
	Rationale ar	nd Reference(s):
	***	

(0.1,20),	appropriate RCRIS status codes for the Current Human Expos and obtain Supervisor (or appropriate Manager) signature and d attach appropriate supporting documentation as well as a map	data on the CI data
<u>X</u>	YE - Yes, "Current Human Exposures Under Control" has of the information contained in this EI Determination, "Currexpected to be "Under Control" at the Huxford Pole & Timl 008 185 407, located at AL Hwy 21, Huxford, Alabama undexpected conditions. This determination will be re-evaluate becomes aware of significant changes at the facility.	rent Human Exposures" are ber Co. facility, EPA ID # ALD der current and reasonably
************	NO - "Current Human Exposures" are NOT "Under Contro	ol."
	IN - More information is needed to make a determination	•
Completed Supervisor	by (signature)  (print) Vernon H. Crockett  (title) Environmental Engineer II  (signature)	Date: <u>September 28, 1999</u>
,	(print) Stephen A. Cobb (title) Chief, Hazardous Waste Branch	Date: 9/30/99
Locations	(EPA Region or State) Alabama	
	where References may be found:	
Land Divis	epartment of Environmental Management ion – Public Files	
Contact tele	ephone and e-mail numbers	
(name) <u>Ch</u> (phone #) (	p Crockett 334) 271-7747	
(e-mail) vh	c@adem.state.al.us	

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

#### **ATTACHMENT 2**

# DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION RCRA Corrective Action

Environmental Indicator (EI) RCRIS Event Code (CA750) Migration of Contaminated Groundwater Under Control

Facility		Huxford Pole & Timber Company
	Address:	AL Hwy 21, Huxford, Escambia County, Alabama
Facility	EPA ID#:	ALD 008 185 407
1.	groundwater	lable relevant/significant information on known and reasonably suspected releases to the media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units egulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?
	<u>X</u>	If yes - check here and continue with #2 below,
		If no - re-evaluate existing data, or
٠		If data are not available, skip to #8 and enter "IN" (more information needed) status code.
D. CYC	DOIN	

## BACKGROUND

## Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

### Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### Relationship of EI to Final Remedies

While final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated groundwater and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

### **Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in the RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

10 610 61.6	vater known or reasonably suspected to be "contaminated" above appropriately protection, applicable promulgated standards, as well as other appropriate standards, guidelines, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the factories are criterials.
<u>X</u>	If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.
	If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and refere supporting documentation to demonstrate that groundwater is not "contaminated."
	If unknown - skip to #8 and enter "IN" status code.
of groundw	semi-annual corrective action effectiveness reports document the nature and extent ater impacts at the Huxford facility.
of groundw	ater impacts at the Huxford facility.
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of groundw	ater impacts at the Huxford facility.

<sup>&</sup>quot;Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

onpooled th	gration of contaminated groundwater stabilized such that contaminated groundwater is premain within the "existing area of contaminated groundwater" as defined by the monitor esignated at the time of this determination?
_X_	If yes - continue, after presenting or referencing the physical evidence (e.g., groundwat sampling/measurement/migration barrier data) and rationale why contaminated ground is expected to remain within the (horizontal or vertical) dimensions of the "existing are groundwater contamination".
<u> </u>	If no (contaminated groundwater is observed or expected to migrate beyond the designal locations defining the "existing area of groundwater contamination") - skip to #8 and e "NO" status code, after providing an explanation.
	If unknown - skip to #8 and enter "IN" status code.
groundwat	nd Reference(s): <u>As documented in semi-annual corrective action effectiveness repor</u> the plume of contamination has exhibited no migration since the startup of the er treatment system. The contaminant concentrations in most wells exhibit a declini
Submitted,	the plume of contamination has exhibited no migration since the stantage of
groundwat	the plume of contamination has exhibited no migration since the stantage of
groundwat	the plume of contamination has exhibited no migration since the stantage of
groundwat	the plume of contamination has exhibited no migration since the stantage of
groundwat	er treatment system. The contaminant concentrations in most wells exhibit a declini
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groundwat	er treatment system. The contaminant concentrations in most wells exhibit a declini
groundwat	er treatment system. The contaminant concentrations in most wells exhibit a declini

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<sup>&</sup>quot;Existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

Does "cont	minated" groundw					
	If yes - continue a	after identifying po	tentially affected	d surface water	bodies.	
<u>X</u>	explanation and/o	(and enter a "YE" sor referencing documents and the second	status code in #8 mentation suppo	B, if #7 = yes) a orting that grou	fter providir ndwater "co	ig an ntamina
	If unknown - skip	p to #8 and enter "II	N" status code.			
Rationale ar	d Reference(s):_S	See the <i>Groundwate</i>	er Ouality Asses	<i>sment</i> , dated .l	Ianuary 27	1992
					anuary 27,	1774.
			<u> </u>		The state of the s	
			· · · · · · · · · · · · · · · · · · ·			

If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration? of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) providing a statement of profession judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.  If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration? of each contaminant discharged above its groundwater "level," the value of appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2 for any contaminants discharging into surface water in concentrations are increasing; and 2 for any contaminants discharging into surface water in concentrations greater than 100 tin their appropriate groundwater "levels," providing the estimated total amount (mass in kg/y of each of these contaminants that are being discharged (loaded) into the surface water bot (at the time of the determination), and identifying if there is evidence that the amount of discharging contaminants is increasing.  If unknown - enter "IN" status code in #8.  Rationale and Reference(s):  Rationale and Reference(s):	dischargin	harge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the concentration of each contaminant discharging into surface water is less than 10 times their e groundwater "level," and there are no other conditions (e.g., the nature and number of g contaminants, or environmental setting) which significantly increase the potential for ble impacts to surface water, sediments, or eco-systems at these concentrations)?
significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration of each contaminant discharged above its groundwater "level," the value of appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2 for any contaminants discharging into surface water in concentrations greater than 100 tin their appropriate groundwater "levels," providing the estimated total amount (mass in kg/y of each of these contaminants that are being discharged (loaded) into the surface water boc (at the time of the determination), and identifying if there is evidence that the amount of discharging contaminants is increasing.		If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) providing a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unaccentable
		significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration of each contaminant discharged above its groundwater "level," the value of appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2 for any contaminants discharging into surface water in concentrations greater than 100 times their appropriate groundwater "levels," providing the estimated total amount (mass in kg/yr of each of these contaminants that are being discharged (loaded) into the surface water bod (at the time of the determination), and identifying if there is evidence that the amount of discharging contaminants is increasing.
	Rationale a	
	Rationale a	
	Rationale a	and Reference(s):

As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

а	Can the <b>discharge</b> of "contaminated" groundwater into surface water be shown to be " <b>currently</b> acceptable" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented)?				
	If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment, <sup>10</sup> appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.				
	If no - (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.				
	If unknown - skip to 8 and enter "IN" status code.				
Ra	ationale and Reference(s):				
·					
<del></del>	<del>en de la companya de</del>				
9	Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing				
	groundwater flow pathways near surface water bodies.				
10	The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are appropriated to be a least to the contaminated groundwater discharges into surface water				
	bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems				

110003	Will groundwater <b>monitoring</b> / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"				
<del>-</del>	X	If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."			
	<del></del>	If no - enter "NO" status code in #8.			
_		If unknown - enter "IN" status code in #8.			
Ration	nale an	d Reference(s): See AHWMMA Permit No. ALD 008 185 407, Section II.			
<del></del>	· · · · · · · · · · · · · · · · · · ·				
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8.	Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).  X YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Huxford Pole & Timber Company facility, EPA ID # ALD 008 185 407, located at AL Hwy. 21, Huxford, Escambia County, Alabama.  Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.				
	NO - Unacceptable migration of contaminated groundy	•			
	Completed by (signature)  (print) Vernon H. Crockett (title) Environmental Engineer II	Date: <u>September 28, 1999</u>			
	Supervisor  (signature)  (print) Stephen A. Cobb  (title) Chief, Hazardous Waste Branch (EPA Region or State) Alabama	Date: 9/3/99 1			
	Locations where References may be found:  Alabama Department of Environmental Management  Land Division – Public Files	<u> </u>			
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## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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September 5, 1997

#### MEMORANDUM

TO:

Wm. Gerald Hardy, Chief L

Hazardous Waste Branch

Land Division

THROUGH: Stephen A. Cobb, Chief SAC

**Industrial Facilities Section** Hazardous Waste Branch

Land Division

Chip Crockett WC 9/5/97 FROM:

Industrial Facilities Section Hazardous Waste Branch

Land Division

RE:

Evaluation of status under the

RCRIS Corrective Action Environmental Indicator Event Codes

Huxford Pole & Timber Co. EPA ID No. ALD 008 185 407

The Hazardous Waste Branch has conducted an evaluation of the Huxford Pole & Timber Co. (Huxford), Huxford, Alabama, facility in relation to the following RCRIS Corrective Action Codes:

1) Human Exposures Controlled Determination (CA725)

2) Groundwater Releases Controlled Determination (CA750)

#### **Background**

Huxford Pole & Timber Co. is a wood treatment facility which produces treated wooden poles for the electrical power and the communications industries. The facility began operations in 1971 using Creosote-based preservatives. Pentachlorophenol-based treatment solutions were added in 1974 and an additional treatment facility employing Chromated Copper Arsenate (CCA) solutions was constructed in 1991.

Hazardous wastes generated at the site include Hazardous Waste No. K001, produced when treatment vessels are periodically cleaned-out. Prior to 1987, these wastes were

managed in four unlined surface impoundments. These impoundments were closed with wastes left in place in 1987. A groundwater quality assessment was completed in 1992 which identified significant groundwater contamination emanating from these impoundments. A post-closure permit requiring post-closure maintenance and groundwater monitoring was issued August 22, 1995. A permit modification incorporating corrective measures for groundwater was issued September 30, 1996. A groundwater extraction and treatment system is to be completed by November 1997.

A RCRA Facility Assessment (RFA) was completed June 1988. The RFA identified 36 Solid Waste Management Units (SWMUs) and one Area of Concern (AOC). Five SWMUs and one AOC were identified as requiring additional investigation. A RCRA Facility Investigation Workplan was approved May 14, 1997. The investigation is projected to be complete by December 1997.

### **Human Exposures Controlled Determination (CA725)**

The routes of human exposure at the Huxford facility include soil, groundwater, and surface water through stormwater and process wastewater discharge. Surface water discharges are controlled and regulated by the NPDES program. Exposures to groundwater could occur by direct access to the aquifer through monitoring wells or private water wells. All monitoring wells maintained by Huxford are required to be locked at all times except when being sampled. There is a private water supply well in the immediate vicinity of the Huxford site which is used for lawn irrigation. This well is monitored by the facility as part of its required monitoring program and to date has not been shown to be contaminated. The water well for the town of Huxford and the local rural area is located approximately 1700 feet East of the closed impoundments, and is reportedly completed at depths of 202 to 232 feet in the lower confined aquifer. This well is upgradient from the closure site.

As previously stated, four unlined surface impoundments managing K001 hazardous wastes were closed with wastes and contaminated soils left in places. These wastes are covered with a cap constructed to the specifications required by ADEM Admin Code R. 335-14-5-.07 and 335-14-5-.14. Access to the closure site is controlled by a barbed wire fence. There are five SWMUs at the facility at which the potential for soil contamination exists. An RFI is currently underway and is projected to be completed in December 1997. The Human Exposure Controlled RCRIS code applies to the entire site, not specific SWMUs. The available status codes are:

- 1) YE Yes, applicable as of this date (indicating human exposures controlled).
- 2) NO No, not applicable as of this date (indicating human exposures uncontrolled)

- 3) NA Previous determination no longer applicable as of this date.
- 4) NC No control measures necessary.

In the absence of data confirming or denying the presence of soil contamination, and given that groundwater contamination is known to have migrated beyond the facility boundary with no corrective measures currently in-place, it would appear that the appropriate status code for RCRIS code CA725 would be NO, indicating human exposures uncontrolled at this time.

## **Groundwater Releases Controlled Determination**

A groundwater quality assessment was completed at Huxford in 1992. The assessment documents the existence of a migratory contaminant plume in the uppermost aquifer consisting of mainly semi-volatile constituents associated with the wood preservatives employed at the site. Certain semi-volatile constituents are present in the groundwater at concentrations exceeding Maximum Contaminant Levels (MCLs). Although a Corrective Measures Program has been partially implemented, the approved corrective action system has not been completed. Therefore groundwater releases are uncontrolled at this time.

### Conclusions

## 1) Human Exposures Controlled RCRIS Event Code (CA725)

In the absence of data confirming or denying the presence of soil contamination, and given that groundwater contamination is known to have migrated beyond the facility boundary with no corrective measures currently in-place, it would appear that the appropriate status code for RCRIS code CA725 would be NO, indicating human exposures uncontrolled at this time.

## 2) Groundwater Releases Controlled Determination (CA750)

Although under construction, corrective measures are not currently in place at the Huxford facility. Therefore, it appears that NO (not applicable as of this date) is the appropriate status code for this RCRIS entry.

vhc: huxf\_envind

File: SD/Huxford/Escambia County