

## TEXARKANA WOOD PRESERVING COMPANY SUPERFUND SITE - OPERABLE UNIT ONE RECORD OF DECISION AMENDMENT NO. 1 February 1998

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February 1998

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#### DECLARATION FOR THE TEXARKANA WOOD PRESERVING COMPANY SUPERFUND SITE - OPERABLE UNIT ONE AMENDED RECORD OF DECISION NO. 1

SITE NAME AND LOCATION. Texarkana Wood Preserving Company Lubbock St. Texarkana, TX

**STATEMENT OF BASIS AND PURPOSE.** This decision document presents an amendment to the selected remedial action for the Texarkana Wood Preserving Co. Superfund Site which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (42 U.S. Code, Section 9501, et seq.), and, to the extent practicable, the National Contingency Plan (NCP) (40 CFR Part 300). This decision is based on the Administrative Record for this site. The State of Texas concurs with this amended remedy.

ASSESSMENT OF THE SITE. Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Amended Record of Decision, present an imminent and substantial endangerment to public health, welfare or the environment.

**DESCRIPTION OF THE REMEDY.** This amendment fundamentally changes the Record of Decision (ROD) executed by the Regional Administrator on September 25, 1990. This amended remedy will seal and contain soils contaminated with greater than 3 ppm (parts per million) benazo(a)pyrene equivalents, 2450 ppm total poly aromatic hydrocarbons (PAH), 20 ppb (parts per billion) as 2, 3, 7, 8 TCDD equivalents and 150 ppm pentachlorophenol beneath a soil cap.

**STATUTORY DETERMINATION.** The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. Since contamination at the site presents only a low level threat, EPA determined permanently treating contaminated soil at this site to reduce toxicity, mobility and volume of the contamination was unnecessary. However, this remedy will permanently contain the soil contamination. Therefore there is no need for this remedy to satisfy the statutory preference for remedies that employ treatment as a principal element. Because this remedy will result in hazardous substances remaining on-site above health-based levels, Environmental Protection Agency (EPA) will review the remedy within five years after commencement of remedial action to ensure it continues to adequately protect public health, welfare, and the environment.

Jerry Clifford V U Acting Regional Administrator (6RA)

March 13, 1998

1. **INTRODUCTION.** This is an amendment to the September 1990 Record of Decision (ROD) for the Texarkana Wood Preserving Company (TWPC) Superfund Site. This amendment changes the remedy to clean up contaminated soil from incinerating contaminated soils to containing them beneath a cap. It discusses site background, the original remedy, circumstances requiring an amendment and rationale for selecting the new remedy. This amendment also describes the new remedy and evaluates the new remedy in accordance with the nine criteria set forth in the National Contingency Plan (NCP). Note, this amendment affects only the soil remedial action whereas the remedy to clean up ground water through an on-site carbon adsorption treatment system remains unchanged.

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a. Site Background. Creosote and pentachlorophenol (PCP) wood treating operations began at the TWPC plant site sometime between 1946 and 1954 and ceased in 1984. The Environmental Protection Agency (EPA) estimates that these operations contaminated 77,000 cubic yards of soil and 16,000,000 gallons of ground water with creosote, PCP and dioxin.<sup>1</sup> The TWPC Superfund site (Figure 1) is located in Bowie County, Texas along Lubbock Street between the Union Pacific Railroad and Days Creek about one half mile from the Texas - Arkansas border. The Texarkana, Texas city limit divides the site into approximately a northern third within the city limits, leaving the southern two thirds under Bowie county jurisdiction. As seen in Figure 1, the site is within the Days Creek 100 year flood plain and nearby land uses include cemetery, residential, cattle

pasture and industrial activities such as a cattle auction barn, sawmill and rail yard (see Figure 2). These land uses were considered when EPA evaluated the overall protection of human health and the environment provided by the new cleanup remedy.

b. Original Cleanup Remedy Selected In the ROD.

i. In September 1990 EPA decided to use thermal destruction to incinerate crossote pentachlorophenol and dioxin contaminated soils at the site. The circumstances and analysis to support the original decision are recorded in the "Record of Decision, Texarkana Wood Preserving Company Superfund Site," September 1990. The ROD is part of the Administrative Record discussed later in Section 4. The soil cleanup remedy chosen in the ROD was alternative A-3, Thermal Destruction and Backfilling.<sup>2</sup> To implement the soil cleanup, contaminated soil was to have been excavated and stored on the site as it waited to be fed into the thermal destruction unit. Once the contamination was burned, the clean soil was to have been buried on-site, covered with top soil and revegetated. All the contaminants above the soil remediation goals shown in Figure 3 were to have been treated to reduce the excess cancer risk below a 1 chance in 100,000 for an individual routinely exposed to the site. Thermal destruction would have eliminated the source of ground water contamination and prevented further shallow ground water degradation as well as the potential for offsite migration.

ii. Many types of thermal destruction units were suitable for this alternative, however, the cost estimate for alternative A-3 was based on two rotary



## Texarkana Wood Preserving Co. Superfund / NPL Site Texarkana, Texas

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Conducting land-use analysis using G.I.S. This image is a digital rectified ortho photograph taken on 4/17/94 by Merrick GIS Mapping Services, Aurora, CO. The structure types were interpreted by analyzing this image at a more detailed scale & size. Lighter shades indicate concrete pavement and/or vacant land with little or no vegetation. Darker shades indicate dense vegetation and shadows. Colors were added to illustrate major features.



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**FIGURE 2** 

TWPC Superfund Site ROD Amendment No. 1 February 25, 1998 Page 2

kiln incinerators operating at 24 hours per day. The incinerator could have reduced the toxicity, mobility and volume of contaminated soil by destroying at least 99.99% for the non dioxin contaminants and 99.9999% of the dioxin.

c. Summary of the Circumstances Requiring an Amendment.

Soil Remediation Goals, Parts Per Million (ppm)
Carcinogenic Polynuclear Aromatic
Hydrocarbons (cPAH) As Benzo(a)pyrene
Equivalents* 3
Total Polynuclear Aromatic
Hydrocarbons (tPAH) 2450
Chlorinated Dibenzo-p-dioxin and
Dibenzofuran as 2.3.7.8 TCDD
Equivalents** 0.02
Pentachlorophenol 150

\* The cPAH benzo(a)pyrene equivalents are found in this amendment, Appendix B. Replace Table 2 in the ROD with the table found in Appendix B.

**\*\***TCDD equivalents are found in this amendment, Appendix B. Replace Table 3 in the ROD with the table found in Appendix B.

Figure 3.

i. After the ROD was signed on September 25, 1990, the community attempted<sup>3</sup> to persuade EPA to change the cleanup remedy because it feared thermal destruction "could endanger public health and the environment."<sup>4</sup> The community solicited aid from then Congressman Jim Chapman because it believed "that EPA had already identified incineration as the cleanup remedy when the proposed plan was released and that nothing could have been done to change the Agency's decision."<sup>5</sup> In other words the community did not believe EPA followed the two step cleanup remedy selection process described in the NCP<sup>6</sup> which requires EPA to consider community concerns when deciding the most appropriate cleanup remedial action.<sup>7</sup> Although opposition continued, EPA proceeded to design the incineration cleanup remedy making several design changes to accommodate community concerns. However, by June of 1994 Congressman Chapman received a petition signed by "thousands of Bowie and Miller County residents who opposed any form of incineration at the site."<sup>1</sup> The petition made it clear that design changes alone could not "put to rest" all the community's fears and that the community was organized to oppose the selected cleanup<sup>9</sup>. Its opposition focused on two beliefs: 1) thermal destruction could endanger public health and the environment; and, 2) EPA did not reach out to understand public concerns.<sup>10</sup> Since EPA received no comments during the 1990 public comment period addressing poor public outreach, the community's concern is information which was not available to EPA at the time the Record of Decision (ROD) was approved.<sup>11</sup>

ii. Once it became clear to EPA that all community fears could not be put to rest, and that the community desired a greater role in deciding the cleanup remedy, EPA requested Texas Natural Resource Conservation Commission (TNRCC) halt all efforts to award a thermal destruction contract to incinerate soil. As a result, TNRCC allowed the thermal destruction bids it received to expire without award.<sup>12</sup> The public's concern with thermal destruction caused EPA to suspend further remedial action at the site in 1994 and re-analyze remedies available for treating contaminated soils with wood preservatives.

iii. Meanwhile, Congressman Chapman

requested the Office of Technology Assessment (OTA) study remedies which could have been alternatives to thermal destruction. The OTA report concluded that, although there was a range of technologies that have been selected at other sites to clean up wood treating wastes, the applicability of a technology to a particular Superfund site has to be based on many site-specific factors.<sup>13</sup>

iv. In 1996, after considering the community's concern and OTA's aforementioned conclusion, EPA returned to the Texarkana community to listen to its concerns and find a cleanup remedy to satisfy the stakeholders, EPA, TNRCC and the community. Consequently, EPA began reanalyzing the available remedial action alternatives and began working with the TNRCC and the Texarkana community to find a cleanup acceptable to each stakeholder. This cleanup remedy selection approach is encouraged by the October 1995, "Superfund Administrative Reforms Overview," reform item C.1. "Establish Greater Stakeholder Role in Remedy Selection."

d. Selecting the New Cleanup Remedy.

i. EPA began the new cleanup remedy selection by addressing the concern that there was insufficient community involvement with the original decision. In response to that concern EPA and TNRCC held various meetings with the Texarkana community to announce its plan to reconsider the original cleanup remedy. During these meetings EPA also encouraged the community to form a Community Advisory Group (CAG) representing the Texarkana Community. A CAG was formed in the fall of 1996 and held it's first meeting in December 1996 beginning in earnest a quest to find an acceptable cleanup remedy.

From December 1996 through July ii. 1997 the CAG met monthly to learn about the site. presumptive remedies and the Superfund process. EPA provided the CAG a site tour and seminars regarding presumptive remedies for contaminated soils at wood treating sites, site risk and the Superfund legal process. During the June 1997 meeting the CAG determined it was ready to decide what it would consider an acceptable cleanup After a discussion, the membership remedy. decided it should vote during the July meeting to determine if capping the contaminated soils would be an acceptable cleanup remedy.<sup>14</sup> When the CAG convened again in July, it voted unanimously to recommend a cap as a soil cleanup remedy. The CAG sent EPA a letter on July 20, 1997 confirming that a cap would be an acceptable cleanup remedy. This letter is included in Appendix A, "Correspondence."

iii. Upon receipt of the letter, EPA completed its analysis of the remedial action alternatives selected in the ROD to determine if a cap could be an alternative cleanup remedy upon which EPA, TNRCC and the CAG could agree. This analysis was conducted in accordance with the cleanup remedy selection procedures described in the National Contingency Plan (NCP) §300.430, "Remedial Investigation / Feasibility Study and Selection of Remedy." Through this analysis (see "Evaluation of Alternatives.") EPA determined capping contaminated soils is an appropriate response to prevent dermal contact and ingestion threats from site soils. However, leaving contaminated soil in place poses a significantly

different circumstance from incinerating all contaminated soils. This difference is discussed further in the "Explaining the Differences" section of this amendment.

iv. Since capping contamination changes the remedial approach originally selected in the ROD, EPA considers this a "fundamental" change; consequently it must amend the ROD in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Section 117(c), 42 U.S.C. § 9617(c), and the 1990 National Contingency Plan (NCP) at 40 CFR § 300.435(c)(2)(ii). However, as explained in the "Evaluation of Alternatives," EPA believes this change will continue to protect human health within the acceptable excess cancer risk range (1 chance in 10,000 to 1 chance in 1,000,000) defined in the NCP at 40 CFR § 300.430(e)(2)(i)(A)(2)].

e. Description of the New Cleanup remedy.

i. The Alternative to Incineration. In lieu of thermal destruction, EPA will cap all soils above the remediation goals and construct a fence around the capped area similar to the alternative proposed in the ROD as "Soil Alternative A-2." The primary objective of this cap is to provide an engineered control to protect human health from the risks posed by dermal adsorption or ingestion of contaminated soil.<sup>15</sup> However, the secondary objective of the cap is to prevent further ground water contamination, so the final cap design depends upon the performance requirements imposed by the final ground water cleanup remedy design. Therefore, as discussed further in the "Explaining the Differences" section EPA will investigate and evaluate the contaminant transfer effects before proceeding with the final cap

design and construction.

ii. Design Criteria. For this amendment, EPA assumes the cap will have to meet both aforementioned objectives, thus the final design will require layers of clay fill, a high density polyethylene synthetic liner, and topsoil with a vegetative cover above the synthetic liner similar to the ROD Soil Alternative A-2. However, if EPA determines that meeting only the first objective is necessary, the design could be as simple as a topsoil cover. In fulfilling either objective, EPA will design the cap in accordance with local flood plain ordinances and design it to minimize the need for further maintenance, as well as to prevent the post-closure escape of hazardous constituents, contaminated run-off, or hazardous decomposition products to surface water or the atmosphere.<sup>16</sup> Lastly, EPA may require a soil treatment, such as stabilization, before the site is capped if the ground water investigation and evaluation demonstrates such treatment is necessary to prevent further contamination transfer from the soil to the ground water. Once EPA determines the cap design necessary to protect human health and the environment, it will explain the rationale for the final design through an explanation of nonsignificant differences.

iii. <u>Size and Cost</u>. The ROD estimates that 77,000 cubic yards will require capping, however, prior to finalizing a cap design, EPA will define with a 90% confidence those areas of the site where the mean contaminant concentration is below those soil remediation goals defined in Figure 3. The cap will cover all other areas on site. When the cap is completed, a professional land surveyor will survey

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the cap boundaries and prepare a plat showing the boundaries and elevations of each capped area with respect to permanently surveyed benchmarks. EPA will place a copy of the plat in each repository and EPA will include the plat with the deed notice discussed in the following paragraph. EPA estimates the cap may cost \$7,300,000. The estimate was taken from the "Soil Alternative A-2" estimate in the 1990 ROD.<sup>17</sup>

iv. Institutional Controls. In addition to providing a cap as an engineered control to mitigate the risk posed by contaminated soils, EPA will also pursue institutional controls to ensure the integrity of the cap is not violated. Although EPA encourages future industrial site use, property development is not the design objective for the cap. Therefore, EPA will use institutional controls to ensure future property development is coordinated with EPA and TNRCC. Institutional controls are necessary to ensure that future development does not damage the cap to the extent that it no longer protects human health and the environment. At a minimum EPA will file a deed notice to subsequent purchasers stating:

• Contaminated soils remain beneath various capped areas shown on a site plat.

• Disturbing a capped area could release hazardous substances;

• The party responsible for any release from a capped area will incur liability for the response actions required to restore the protection of human health and the environment; and

• EPA recommends the site be used for nothing other than industrial purposes.

In addition to the deed notice, warning signs will be

placed on the fence surrounding the site stating that it encloses subsurface contamination and anyone disturbing the fence or the grounds enclosed by the fence may incur liability under Federal law.

v. Upon completion of the cap the TNRCC will assume responsibility for its operation and maintenance. Prior to completing the remedial action, TNRCC will cooperate with the local community to develop a plan describing operation and maintenance activities. The operation and maintenance activities will at a minimum include routine mowing as necessary to protect the integrity of the cap and periodic inspections to ensure there is no surface erosion or other destruction to the cap or the surrounding fence.

f. Explaining the Differences. The capping alternative described in "The New Cleanup remedy" will leave contaminated soil in place, thus differences between the original and new cleanup remedy affect ground water and the principal threat determination.

i. <u>Ground Water Affects</u>. Because ground water on site is contaminated, EPA assumes ground water flow transfers contamination from the soil to the ground water. Consequently, EPA will investigate and evaluate the contaminant transfer effects and explain these effects in an explanation of non-significant differences. If this evaluation determines the current ground water remedial action is no longer applicable, EPA will amend the ROD to ensure an appropriate ground water cleanup remedy will protect human health and the environment.

ii. <u>Principal Threat</u>. As described in the NCP, 40 CFR § 300.430.(a)(1)(iii)(A), EPA prefers permanent solutions to reduce the toxicity, mobility, or volume of the wastes and the treatment of all principal threats. In 1991, a year after the ROD was signed, EPA published guidance defining principal threats to be:

those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. They include liquids and other highly mobile material (e.g., solvents) or materials having high concentrations of toxic compounds.... However, where toxicity and mobility or source material combine to pose a potential risk of 10<sup>-3</sup> or greater, generally treatment alternatives should be evaluated....

Determinations as to whether a source material is a principal or low level threat should be based upon the inherent toxicity as well as a consideration of the physical state of the material (e.g., liquid), the potential mobility of the wastes in the particular environmental setting....

The identification of principal and low level threats is made on a site specific basis.<sup>18</sup>

In accordance with this guidance, even though the 1990 ROD considered the soil to be a principal threat,<sup>19</sup> EPA re-evaluated the soil with respect to the aforementioned guidance and no longer considers it a principal threat since the base line risk assessment<sup>20</sup> did not identify any health risk from dermal contact or inadvertent ingestion of dioxin or pentachlorophenol contaminated soil to be greater than 1 chance 1000. Although PAH's in soil pose a risk greater than 1 in 1000, they are immobile and can therefore be reliably contained beneath a cap.<sup>21</sup> In accordance with the EPA guidance "...low level threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of a release."22 Therefore, PAH contaminated soil is considered a low level threat because it can be reliably contained and would present only a low risk in the event of Since EPA no longer considers the release. contaminated soil on site a principal threat, the NCP 40 CFR § 300.430.(a)(1)(iii)(B) allows EPA to use "... engineering controls, such as containment for contamination that poses a relatively long term threat."<sup>23</sup> EPA believes a cap will provide reliable containment as well as reduce toxicity by severing the exposure pathway. Substances are toxic when they reach a target organ through an exposure pathway in a prescribed dose. Therefore, a cap reduces toxicity by severing the most likely potential exposure pathways, dermal adsorption and ingestion, thus preventing a target organ from receiving a toxic dose. A cap will contain the contaminants and thus reduce their mobility into the air and surface runoff, and since water is the only medium to most likely mobilize the contaminant, EPA will ensure the cap is designed to minimize the amount of water available to mobilize the contaminant.

2. EVALUATION OF ALTERNATIVES. To properly consider a ROD amendment EPA has traditionally evaluated the originally selected cleanup remedy and the amended cleanup remedy by comparing each of them against the nine criteria identified in Figure 4 to ensure the amended cleanup

remedy reflects the scope, purpose and a long term comprehensive response for the site after discovering significant new information to require an amendment. In this case the community's concern that it was not given enough opportunity to affect the decision was the new information that was not available at the time of the original decision. EPA used this new information as the reason to reconsider incineration as the cleanup remedy for the site.<sup>24</sup> In addition, in the case of this ROD amendment, EPA also considered the other presumptive remedies (thermal desorption, bioremediation and immobilization) described in "Presumptive Remedies for Soils, Sediments, and Sludges at Wood Treater Sites," EPA/540/R-95/128. Two presumptive remedies were not considered and a third has not been ruled out. The community did not favor thermal desorption for the same reasons that it opposed thermal destruction, and EPA rejected bioremediation because it will not remediate dioxin. As for immobilization, it has not been ruled out since soil stabilization may still be necessary to prevent the soil from contaminating the ground water.

a. Overall Protection of Human Health and the Environment. Current surrounding land uses include a cemetery, residential, cattle pasture and industrial activities such as a cattle auction barn, sawmill and rail yard. With these land uses in mind both EPA and the CAG consider an industrial use to be the most probable future land use for this site.<sup>25</sup> EPA considered the current surrounding land uses and the most probable future land use in its decision to cap the contaminated soil in accordance with EPA's "Land Use in the CERCLA Remedy Selection Process," Office of Solid Waste and Emergency Response Directive No. 9355.7-04. So, because there are no principal threats from contaminated soil at the site, EPA determined that a cap with institutional controls will protect human health and the environment by preventing dermal adsorption and inadvertent ingestion exposures to future on-site industrial occupants. EPA determined the originally selected cleanup remedy would treat contaminants to below the remediation goals shown in Figure 3 with a high degree of certainty.<sup>26</sup>

b. Compliance With Applicable or Relevant CERCLA, and Appropriate Requirements. Section 121(d)(2) requires remedial actions to at least attain applicable, relevant and appropriate requirements (ARAR's), 42 U.S.C. § 9621(d)(2). Applicable requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance at a Superfund site. Relevant and appropriate requirements are standards, which while not "applicable" at a CERCLA site, address problems or situations sufficiently similar to those encountered at the site such that their use is warranted. EPA recognizes the three ARAR categories defined in Figure 5. While EPA does not believe there are any requirements applicable to the cleanup remedy outlined in this ROD amendment, the requirements in Figure 6 are relevant and appropriate. Since the site is located in a 100 year flood plain EPA included location standards as a relevant and appropriate standard to ensure the cap is designed, constructed and maintained to prevent a washout during a 100 year flood. EPA included post closure notice as a relevant and appropriate standard to ensure local officials understand where contamination is left on site. EPA included relevant and appropriate post closure care standards to identify expected operation and maintenance standards. It is possible to construct a cap which will meet the requirements of the ARAR's identified in Figure 6. The originally selected cleanup remedy, could have met the required ARAR's.<sup>27</sup>

#### 40 CFR, Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

- Subpart B General Facility Standards, Location Standards, §264.18(b)
- Subpart G Closure and Post Closure, Post Closure Notices, §264.119(b)(1)(iii).
- Subpart N Landfills, Closure and Post Closure Care:
  --\$264.310(a)(1)
  --\$264.310(a)(2)
  --\$264.310(a)(3)
  --\$264.310(a)(4)
  --\$264.310(b)(1)
  --\$264.310(b)(5)

Figure 6. Relevant and Appropriate Requirements.

c. Long-Term Effectiveness and Permanence. A cap can be constructed to achieve long-term effectiveness. Caps are used effectively throughout the nation as a cover to permanently close hazardous waste landfills.<sup>28</sup> Consequently EPA believes a cap can provide a successful long term and effective permanent cover to ensure there is no exposure pathway for these contaminants to threaten human health or the environment. The 1990 ROD indicated the originally selected cleanup remedy would have been the most protective alternative to provide long-term effectiveness and permanence.<sup>29</sup> In accordance with the NCP §300.430(f)(4)(ii), every five years EPA will review the long-term effectiveness and permanence of this cleanup remedy to ensure it remains protective of human health and the environment, is functioning as designed, and necessary operation and maintenance are being performed.<sup>30</sup>

d. Reduction of Toxicity, Mobility or Volume Through Treatment. Since there is no principal threat, this criteria is not applicable because, as discussed before, treatment is not necessary. The ROD indicated that the originally selected cleanup remedy would have provided the most reduction of toxicity, mobility or volume through treatment.<sup>31</sup>

e. Short-Term Effectiveness. The original ROD stated that neither a cap nor thermal destruction provided an unacceptable short term risk.<sup>32</sup>

f. Implementability. The original ROD stated that "Capping is the easiest alternative to implement" while thermal destruction's implementability is comparable.<sup>33</sup> The amended cleanup remedy is implementable since it is easy to construct with locally available skills and materials, is reliable and is easy to maintain.

g. Cost. When comparing present worth cost estimates, constructing a cap may cost \$7,300,000 for which the State would have to match with ten percent, or \$730,000, whereas the thermal destruction may have cost as much as \$43,000,000 requiring \$4,300,000 of State matching funds.<sup>34</sup>

State operation and maintenance costs for a cap are expected to be \$430,000 and for thermal destruction to be \$60,000.<sup>35</sup> Although the State would incur an additional \$370,000 in operation and maintenance costs, the savings it would save are in excess of \$3,500,000 in construction costs.

h. State Acceptance. The TNRCC reviewed the cleanup remedy and provided its concurrence per the attached December 30, 1997 letter.<sup>36</sup>

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i. Community Acceptance. EPA and TNRCC have worked closely with the Texarkana Wood Preserving Site Community Advisory Group. The CAG prefers a cap to thermal destruction as the soil cleanup remedy. On November 4, 1997 EPA announced it would receive written comments regarding the cleanup remedy from November 5, 1997 through December 5, 1997. No comments were received during this period. On November 13, 1997 EPA held a public meeting to receive comments regarding the proposed cleanup remedy. During the meeting one community leader endorsed the cleanup remedy and there were no comments opposing the cleanup remedy.

3. STATUTORY FINDINGS. This document presents an amendment to the selected remedial action for the Texarkana Wood Preserving Superfund Site. This action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (42 U.S. Code, Section 9601, et seq.), and, to the extent practicable, the National Contingency Plan (NCP) (40 CFR Part 300). This decision is based on the Administrative Record for this site.

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action in this Amended Record of Decision, present an imminent and substantial endangerment to public health, welfare or the environment. This amendment fundamentally changes the Record of Decision (ROD) executed by the Regional Administrator on September 25, 1990. The selected cleanup remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. Since contamination at the site presents only a low level threat, EPA determined permanently treating contaminated soil at this site to reduce toxicity, mobility and volume of the contamination was unnecessary. However, this cleanup remedy will permanently contain the soil contamination. Therefore there is no need for this cleanup remedy to satisfy the statutory preference for remedies that employ treatment as a principal element. Because this cleanup remedy will result in hazardous substances remaining on-site above health-based levels, EPA will review the cleanup remedy within five years after commencement of remedial action to ensure it continues to adequately protect public health, welfare, and the environment. 4. LEAD AND SUPPORT AGENCIES. The Texas Natural Resource Conservation Commission (TNRCC) is the lead agency overseeing site remedial action under the terms of a cooperative agreement' between TNRCC and EPA. The

<sup>•</sup> EPA Cooperative Agreement Number V996096-01-3. This agreement is on file at the EPA Region 6 offices, Dallas, TX.

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5. ADMINISTRATIVE RECORD. This amendment will become part of the Administrative Record file in accordance with the National Contingency Plan (NCP), 40 CFR §300.825(a)(2). The Administrative Record contains documents such as the "Remedial Investigation/Feasibility Study" (RI/FS) and ROD that form the basis for selecting the remedial action. The Administrative Record is located at:

U. S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, TX 75202-2733 (214) 665-6444

Texarkana Public Library 600 W. 3rd St Texarkana, TX 75501 (903) 794-2149

The Administrative Record is available to the public at EPA Region 6 on Mondays through Fridays from 8 a.m. to 4 p.m. or the Texarkana Public Library on Mon.-Wed. 9:00-9:00, Thurs.& Fri. 9-5, Sat. 10-5.



Phil Charlis

## About 150 people turn out oppose new incinerator

By C.A. WELLS Of the Gazette Staff

About 150 people turned out Tuesday to oppose plans to build an incinerator on the old Texarkana Wood Preserving site.

Officials with the EPA and Texas Water Commission were on hand at the Texarkana **Regional Arts and Humanities** center to address concerns of area residents about the plan health risk in its current condiand to explain why the EPA

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9/30/92decided to build the incinerator to rid the soil of creosote and pentachlorophenols (PCPs).

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Carl Edlund, EPA's chief of Superfund programs, said the two main questions asked prior to the meeting were what role citizens should play in choosing a cleanup method at the Lubbock Street plant and how the chosen method can be reversed.

"The site now represents a Please see OPPOSE on Page 8A

METRO: GTE, workers still

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tion," Edlund said. "That's why 6 94 we're recommending we clean it up.' er

Bowie County Environmental Officer Cliff McIntyre said one to major concern for him is the ty EPA's apparent conflict of inter**ι**Γ-١t est with Roy Weston, whose firm was chosen to develop incinera-11 tor plans for the site.

ta McIntyre said Weston was ιė

fined \$750,000 by the EPA in 1990 for falsifying documents on a similar project in Pennsylvania. d

Weston's work on the project "appears to create the perception of conflict of interest' because he owns incinerators, McIntyre said.

Edlund said Weston is drawing up the plans for the site, but that Weston's incinerator will not be used.

The decision was made by the EPA and not Weston, Edlund said.

"I believe we're very vigilant about that concern of conflict)," Edlund said.

An agitated audience shot ing and by letter. questions at Edlund and his entourage, demanding another official public hearing to get area residents' opinions about incineration.

"Yall did not inform the people of Miller County at all," said Tammie Davis, a member of the local environmental group Mother's Air Watch. "You say you did, but you did not.

Davis told the officials that Texarkana residents will not stop until their requests are met.

They want the comprehensive air study, a new public hearing and continued research into alternative cleanup methods, she said.

"Our life is cheap ... the main thing (for the EPA) is you've got to be economically feasible," she said.

Edlund said the EPA looked at the Lubbock Street site as a "Texarkana problem" not a Texas or Arkansas problem.

Area residents were alerted to the proposed EPA plans through the media, door-to-door canvass-

But Arkansas residents said they were never informed of the impact the incinerator could have on Miller County residents.

The group also maintains the EPA's decision was made based on faulty or incomplete information, using outdated maps and population figures for the area.

Edlund conceded the maps used were "very old," but said a change in the EPA's decision could be based only on the conditions of the Lubbock Street site since the decision was issued in September 1990 or outdated technology.

"We don't see those big changes (at the Lubbock Stree site) so far," Edlund said.

A comprehensive air stud would pinpoint the amount of contaminates going into the ai from existing businesses an industries.

Those figures should be use in looking for a solution to th Lubbock Street problem, th residents said.



JIM CHAPMAN FIRST DISTRICT TEXAS

RAYBURN HOUSE OFFICE BUILDING VASHINGTON, DC 20515-4301 TELEPHONE: (202) 225-3035

### Congress of the United States House of Representatives Washington, **DC** 20515-4301

May 23, 1994

The Honorable Carol Browner, Administrator U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460

Dear Administrator Browner:

I am writing with regard to the discussions we recently had during the VA, HUD and Independent Agencies Appropriations Subcommittee hearing on the status of the Texarkana Wood Preserving Company superfund site. Thank you again for your willingness to be of assistance in this matter.

As I indicated to you at the hearing, the cleanup remedy selected for the Texarkana superfund site, on-site thermal destruction, has generated widespread community opposition in Texarkana, Texas and Arkansas. Local residents have serious concerns that incineration could endanger the public health and the environment. Additionally, as reported in a recently released GAO study entitled Superfund: EPA's Community Relations Efforts Could Be More Effective, local residents have become frustrated by EPA's lack of community outreach. One of the main complaints I hear from these residents is that EPA had already identified incineration as the remedy when the proposed plan was released and that nothing could have been done to change the Agency's decision.

As you know, GAO will soon be conducting a study on incineration and alternative technologies. The Texarkana site will be one of the case study sites examined by GAO. I appreciate your remarks at the hearing and your willingness to postpone incineration at the site until GAO has completed this study and provided its findings to the community. I will also be meeting with the Region 6 Administrator Jane Saginaw early next month to discuss this matter further. It is my understanding that this site has been on the NPL since March of 1985 and emergency actions have been taken at the site to ensure its safety in the short-term.

Thank you again for your assistance with this matter, and I appreciate your continued interest and support. With your help, I look forward to allowing those with the expertise an opportunity to study this important public safety issue as yet unresolved at this site. With kind personal regards, I am

Sincerely,

Jim Chapman Member/of Congress



COMMITTEE

APPROPRIATIONS

SUBCOMMITTEES

AGENCIES

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#### CONGRESS OF THE UNITED STATES HOUSE OF REPRESENTATIVES WASHINGTON, D. C. 20515

JIM CHAPMAN IST DISTRICT (EXAS

June 21, 1994

Regional Administator Jane Saginaw U.S. Environmental Protection Agency 1445 Ross Avenue Dallas, Texas 75202-2733

Dear Jane:

Thank you again for coming to Washington on June 9 to meet with me regarding the Texarkana Wood Preserving Company Superfund site. I appreciated the opportunity to discuss with you the importance of delaying remadiation at the site.

As you are well aware, the issue of incinerating at the Texarkana site has generated significant public opposition. I cannot stress how important this issue is to my constituents in Bowie County. Earlier this week, I received a patition signed by thousands of Bowie and Miller County residents who oppose any form of incineration at the site. I have assured them that you are working with me to achieve an acceptable resolution to this matter.

I believe that it would be premature for EPA to nove forward with remediation at the Texarkana site prior to the Office of Technology (OTA) and the General Accounting Office (GAO) studying the issue of incineration safety and the alternatives available for remediating the Texarkana site.

Thank you again for your assistance, and I look forward to hearing from you soon. With kind personal regards, I am

sincerely, Jim Chapman Nember of Congress

Honorable Jim Chapman House of Representatives Washington, DC 20515

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Dear Congressman Chapman:

Thank you for your letter to the Administrator, Carol Browner, dated May 23, 1994, in behalf of your constituents regarding the incineration remedy for the Texarkana Wood Preserving Superfund site in Texarkana, Texas. We met to discuss this matter on June 9, 1994. The Texas Natural Resource Conservation Commission (TNRCC) is the lead agency for implementing the remedy at this site. TNRCC has received bids for construction of the incineration facility at the site and the approval for award of the contract is currently on the agenda of the June 29 Commissioner's meeting. You have requested that the Environmental Protection Agency (EPA) postpone incineration at the site until the Office of Technology Assessment completes a study on incineration and alternative technologies. We are in the process of conducting both a legal and technical review of this matter. In response to your request, we have asked TNRCC to move contract award discussions to the latest possible meeting of the Commissioners prior to bid expiration (bids are good through approximately July 21) while we complete our review.

In your letter, you indicated that local residents were frustrated by an apparent lack of community outreach and that EPA had identified incineration as the remedy for the site at the beginning of the public comment period. Developing a purposeful dialogue with affected communities is a statutory requirement and a program priority for EPA under Superfund. In order to promote meaningful public review and comment, Section 117(a) of the Superfund Amendments and Reauthorization Act requires EPA to publish a proposed plan for remediation of the site. In order to develop a plan for remediation, EPA must select a preferred remedy upon which to solicit comments. Although widespread dissatisfaction with incineration was not expressed when it was selected as a remedy in 1990, the community concerns that were raised were the basis for EPA and the State to expand outreach efforts during the remedy design stage. Several technical changes to the remedy were made to respond to the concerns expressed at the design status meetings; however, it is clear that all fears have not been put to rest. Hopefully, we can find a way for EPA to address those concerns to the extent possible and for EPA to implement the appropriate remedy to provide protection to human health and the environment.

Thank you for your continued interest in this project. I appreciate your understanding as we fully evaluate the implications of your request. If I may be of further assistance, please contact me.

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Sincerely yours,

/s/ Janu N. Saginaw

Jane N. Saginaw Regional Administrator JUL 0 8 1994

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Mr. John Hall, Chairman Texas Natural Resource Conservation Commission P.O. Box 13087 Austin, TX 78711-3087

Dear Mr. Hall:

Over the past two years, the Environmental Protection Agency (EPA) and the Texas Natural Resource Conservation Commission (TNRCC) have received comments from Texarkana residents objecting to the incineration remedy selected for the Texarkana Wood Preserving Superfund Site in 1990. One of the concerns expressed has been that the original 30 day comment period for remedy selection passed too quickly. Another recurring issue has been the safety and effectiveness of incineration. Recently, we have been informed that, over the next six months, the Congressional Office of Technology Assessment (OTA) will conduct an investigation into the safety of incineration, and assess possible alternatives for the Texarkana Wood Preserving site in particular. As you are aware, we are approaching a significant funding and contractual commitment to the incineration remedy for this site. In order to benefit from the OTA study, we believe that it is in the best interest of the government to postpone remediation at the site. Therefore, we request that TNRCC let the bids for the Texarkana Wood Preserving Company Superfund site remediation contract expire without award.

After OTA publishes the results of their study, EPA will reopen the public comment period and conduct a public meeting regarding incineration. If this process reveals significant new information beyond our current understanding, it could result in the selection of a different remedy for the site.

In the interim, we request that your staff continue to complete the direct and indirect health risk analyses quantifying the risk of incineration. This information will be added to the record when the public comment period is reopened. Since the remedy for this site will be delayed at least into the next fiscal year, we also believe that it would be prudent fiscal management to deobligate the bulk of the \$60 million in remedial action funds currently awarded to your organization for this project. Monies have been available from the federal trust fund in the past to enable us to restore funding fairly quickly for

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the Texarkana Wood Preserving site. Until they are needed again for Texarkana Wood, the deobligated funds could be directed to other projects.

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If you have question or comments regarding this matter, please let me know or have your staff contact Dr. Allyn Davis at (214) 655-6701.

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Nours cenely

Jane N. Saginaw Regional Administrator

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#### TEXARKANA WOOD PRESERVING COMPANY SUPERFUND SITE COMMUNITY ADVISORY GROUP

#### SWEPCO, COMMUNITY ROOM TEXARKANA, TEXAS JUNE 4, 1997

The meeting was called to order at 7:00 p.m. by Commissioner Jack Stone, chairman of the committee. The following members were present:

Pansy Bai d Dave Hall President Noiel Willie Ra Rosie Wa e Barry Blackmon Anna Marie Hornsby Hollis Patton Jack Stone Chester Williams Tammy Davis Sally Lucas James Presley Carolyn Teel

Others present included: Don Walters, Keith Smith and Glen Celierer of the EPA. Faye Duke and Barbara Day wood of the TNRCC. Jeff Minor of the Texarkana Gazette, Mary Lou Stone, Bradley Johnson, and Joe Kelly.

Minutes from the May committee meeting were presented. Barry Blackmon moved to approve the minutes as witten. It was seconded by Dr. Chester Williams. All voted in favor of approval, none voted again st.

Glen Celierer of the Environmental Protection Agency introduced Keith Smith. Keith Smith is an attorney for the EPA. An overhead presentation was given concerning Superfund Law. Handouts were i ven that coincided with the overheads. Major topics of discussion included: (1) who pays for cleanup (It was noted that the Texarkana Wood Preserving site will be a Fund Lead.), (2) the liability schedule, (3) case study time line, (4) identifying the responsible parties (i.e. the polluters), (5) remedial action, (6) cost recovery action, and (7) future use restrictions.

Following the Superfund Law presentation, Glen Celierer presented additional capping information and accepted questions from committee members concerning the April 25, 1997 capping letter. 1 fr. Celerier stated that he believes capping is a viable solution for the Texarkana Wood Preservirg Site. However, he noted that the contamination would remain on-site and future controls vould be an issue. He also noted that certain measures would need to be taken to protect the ground water supply.

A discussion took place concerning natural remdiation. It was noted that in order for the pollutants at the Texarkana Wood Preserving site to naturally remediate would take thousands of years.

Computer generated maps were then reviewed. The maps reviewed were: (1) Interpolated PCP Concentrations above ROD Limit, (2) Interpolated Total PAH Concentrations above ROD limit,

(3) Interpolated 3AP Equivalent Concentrations above ROD Limit. The maps were generated as part of the EPA's incineration study. Further testing is needed to generate maps that would be more exact for the capping remedy. The reviewed maps will be placed in the Texarkana Library.

A motion was made by committee member, Tammy Davis, that the group review capping information and be prepared to vote for or against it at the July meeting. This motion was seconded by Dave Hall. All in the group voted in favor, none voted against.

Glen Celierer opt ned the floor for public questions. Questions asked concerned back taxes on the site and creost to samples taken near the railroad tracks.

Following public comment, Faye Duke of the TNRCC announced that the fence was up on the site and that bids will be taken toward the end of June for the removing of hazardous drums on the site and the demolishing of the building. It was also noted that advertising for bids will be in the Texarkana Gazette, trade journals, and government publications.

At 9:20 p.m. the meeting was adjourned.

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#### TEXARKANA WOOD PRESERVING COMPANY SUPERFUND SITE COMMUNITY ADVISORY GROUP

#### SWEPCO, COMMUNITY ROOM TEXARKANA, TEXAS JULY 10, 1997

The meeting was called to order at 7:00 p.m. by Commissioner Jack Stone, chairman of the committee. The following members were present:

Jerrel Baind Tammy Davis Robert Jones Willie Rag Nancy Talley Pansy Baird Edwin Finn Sally Lucas Brenda Stevenson Carolyn Teel

Barry Blackmon Anna Marie Hornsby Hollis Patton Jack Stone Rosie Ware

Others present is cluded: Glen Celierer and Earl Hendrick of the EPA. Faye Duke of the TNRCC. Marie Martin of Congressman Max Sandlin's officer. Mary Lou Stone, Bradley Johnson, and Joe Kelly.

Minutes from the June committee meeting were presented. Barry Blackmon moved to approve the minutes as written. It was seconded by Willie Ray. All voted in favor of approval, none voted against.

Commissioner Jick Stone turned the floor over to Glen Celerier of the EPA. Questions concerning capping were taken from the floor. These questions addressed such issues as: any new sample information, time period for action after recommendation, future use of the site, ability to restrict certain types of facilities (i.e. day care, residential, playgrounds, etc...), further liability concerns, etc...

Faye Duke of the TNRCC announced that the fence is up at the site. Also, bids will open on July 28 for the demol tion work and for the handling of toxic bins at the site.

Following discu: sion, Barry Blackmon moved to recommend capping as the clean-up measure of choice. The motion was seconded by Willie Ray. All voted in favor, none voted against.

With the motion passing, Glen Celerier outlined the processess that need to be taken to move to the next level of clean-up. It was noted that a letter of recommendation needs to be sent to the EPA from the CAG. The letter committee is comprised of Barry Blackmon, Anna Marie Hornsby, Caroli to Teel, Willie Ray, and Rosie Ware. The committee will draft a letter and mail it to all committee members for review. Following the review process, the letter will be sent to the EPA.

Glen Celerier noted that the CAG must remain together through the entrie clean-up process. That is once the recommendation phase has moved forward, the CAG must remain for the design

and implementation process. Mr. Celerier added that Earl Hendrick of the EPA will be the project manager curing the design and construction phase of this Texarkana Wood Preserving Site.

Jerrel Baird made 1 motion to adjourn the meeting. Barry Blackmon seconded.

At 9:20 p.m. the r setting was adjourned.

## Texarkana Wood Preserving Site

### Community Advisory Group

Route 2 Box 360 Texarkana, Texas 75501 (903) 838-8591

July 20, 1997

Mr. Myron O. Knudson, P.E. Director, Superfund Division USEPA, Region 6 1445 Ross Avenue (6SF) Dallas, Texas 75202-2733

Dear Mr. Knudson:

This letter concerns the Texarkana Wood Preserving Superfund Site located in Texarkana, Texas. In December 1996, we formed a twenty-one member Community Advisory Group (CAG). Our CAG represents a cross section of concerned citizens who are interested in the expedient cleanup of the Texarkana Wood Preserving Superfund Site. Our membership includes: citizens from both Texas and Arkansas, county officials, city officials, members of the business community, members from the field of academia, members of the NAACP, and members of local environmental watch groups (i.e. F.U.S.E. - Friends United for a Safe Environment and Mother's Air Watch). This group of citizens joined together with the primary mission of... "actively promot[ing] community input to the cleanup process, and giv[ing] advice to help shape the direction of the cleanup process at the site."

With this mission in mind, we have tried to educate ourselves on the concept of the superfund in general, the various methods of cleanup available, the legalities of a superfund site, risk assessment, and site specific data. With the help of Glen Celerier, Donn Walters, Ghassan Khoury, and Keith Smith of the EPA and Faye Duke of the TNRCC, presentations have been made on all of the above mentioned topics. Having educated ourselves in these areas and with the information that has been available to us, the Texarkana Wood Preserving Site Community Advisory Group has come to the unanimous conclusion capping is the most viable solution for this site.

As with any cleanup method, there are recommendations and reservations to be noted. Knowing that the final decision lies with the EPA, we would like to point out the following recommendations and reservations for consideration:

• In studying site specific toxicity reports, we noted that the site contains several "hot spots," as well as, localized contamination. It is our concern that these "hot spots" be investigated and possibly treated in a manner that would economically and efficiently

benefit the site in the long term. The grcup's main concern with these spots lies in the potential for ground water contamination.

- It is our desire that deed restrictions be placed on this property. Throughout our discussion process, it has been a commonly held belief this property would be used for industrial purposes. This conclusion is drawn from the surrounding property which includes a feed mill, livestock auction barn, and rail yards. At no time would this CAG wish to see a residential area, hospital, playground, etc... placed on this site.
- This recommendation comes only with the assurance from the EPA that testing will be done in the future to assure our community of the safety of this site as well as the ground water that lies beneath it.

With these recommendations and reservations noted, we wish to assure you that the group as a whole recommends the capping solution. In comparing and contrasting the various methods of cleanup, we believe capping is the most economically feasible, the most environmentally friendly and the most efficient method with future land usage in mind.

Along with our primary mission, our group wishes to emphasize it's concern for the long-term health and environmental safety of the site and the community surrounding it. It is our hope capping will provide this long-term solution.

In closing, we commend your staff for their professionalism in working with us. Should any questions arise, please do not hesitate to call any member of our committee.

Sincerely.

Commissioner Jack Stone Chairman

JS/amh

Barry R. McBee, *Chairman* R. B. "Ralph" Marquez, *Commissioner* John M. Baker, *Commissioner* Dan Pearson, *Executive Director* 



## RECEIVED

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TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

December 30, 1997

#### VIA OVERNIGHT MAIL

Mr. Myron O. Knudson, P.E., Director Superfund Division U.S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, TX 75202-2733

Re: Texarkana Wood Preserving Company Superfund Site Amended Record of Decision

Dear Mr. Knudson:

We have reviewed the Proposed Record of Decision Amendment No. 1 for the Texarkana Wood Preserving Company Superfund Site - Operable Unit One. The Texas Natural Resource Conservation Commission concurs that the remedy proposed in the amended Record of Decision is appropriate for the Texarkana Wood Preserving Company Superfund Site.

Sincerely, Dan Pearse

Executive Director

DP/FD

## APPENDIX B RELATIVE POTENCY FACTORS FOR CARCINOGENIC POLYNUCLEAR AROMATIC HYDROCARBON (AS BENZO(a)PYRENE) TOXICITY EQUIVALENCY FACTORS (TEF) FOR CDD's AND CDF's

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#### Relative Potency Factors for Carcinogenic Polynuclear Aromatic Hydrocarbon (As Benzo(a)pyrene)

Compound	Relative Potency*
Benzo(a)pyrene	1.0
Benzo(a)anthracene	0.1
Benzo(b)flouranthene	0.1
Benzo(k)flouranthene	0.1
Chrysene	0.01
Dibenzo(a,h)anthracene	1.0
Indeno(1,2,3-cd)pyrene	0.1

\*Source "Provisional Guidance for Quantitative Risk assessment of Polycyclic Aromatic Hydrocarbons," USEPA, Office of Research and Development, EPA/600/R-93/089, July, 1993.

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#### Toxicity Equivalency Factors (TEF) for CDDs and CDFS.

## TEF Compound Mono-, Di-, and Tri-CDDs .....0 2.3.7,8-TCDD .....1 Other TCDDs ......0 2,3,7,8-PeCDD ..... 0.5 2,3,7,8-HxCDD .....0.1 Other HpCDDs ..... 0 Mono-, Di-, and Tri-CDFs .....0 2,3,7,8-TCDF ......0.1 Other TCDFs ......0 2,3,4,7,8-PeCDF .....0.5 Other PeCDFs ......0 Other HxCDFs ......0 Other HpCDFs ......0

Source: EPA, 1989

#### Relative Potency Factors for Carcinogenic Polynuclear Aromatic Hydrocarbon (As Benzo(a)pyrene)

Compound	Relative Potency*
Benzo(a)pyrene	1.0
Benzo(a)anthracene	0.1
Benzo(b)flouranthene	0.1
Benzo(k)flouranthene	0.1
Chrysene	0.01
Dibenzo(a,h)anthracene	1.0
Indeno(1,2,3-cd)pyrene	0.1

\*Source "Provisional Guidance for Quantitative Risk assessment of Polycyclic Aromatic Hydrocarbons," USEPA, Office of Research and Development, EPA/600/R-93/089, July, 1993.

Compound	TEF
Mono-, Di-, and Tri-CDDs	0
2.3.7,8-TCDD	1 0
2,3,7,8-PeCDD Other PeCDDs	0.5 0
2,3,7,8-HxCDD Other HxCDDs	0.1 0
2,3,7,8-HpCDD Other HpCDDs	0.01 0
OCDD	0.001
Mono-, Di-, and Tri-CDFs	0
2,3,7,8-TCDF Other TCDFs	0.1 0
1,2,3,7,8-PeCDF	0.05
2,3,4,7,8-PeCDF	0.5 0
2,3,7,8-HxCDF Other HxCDFs	0.1 0
2,3,7,8-HpCDF	0.01 0
 OCDF	0.001

Toxicity Equivalency Factors (TEF) for CDDs and CDFS.

Source: EPA, 1989

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## APPENDIX C WINSTON BRYANT, ATTORNEY GENERAL, STATE OF ARKANSAS

### v.

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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	IN THE UNITED STATES DISTRICT COURT WESTERN DISTRICT OF ARKANSAS TEXARKANA DIVISION
	WINSTON BRYANT, ATTORNEY GENERAL PLAINTIFF
	v. Civil No. 92-4152
	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, CAROL M. BROWNER, ADMINISTRATOR, and the TEXAS WATER COMMISSION, JESUS GARZA, DIRECTOR DEFENDANTS
<b></b>	O.R. D. E. R
	NOW on this 30th day of June, 1993, upon consideration of
	the Plaintiff's Amended Motion for Case Dismissal, filed June 24,
	1993, (pleading #21), the Court finds that said motion should be
	and hereby is granted. Accordingly, this case is dismissed
	without prejudice.
	IT IS SO ORDERED.
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	JIME LARRY HENDREN UNITED STATES DISTRICT JUDGE
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•	U. S. DISTRICT COURT
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	U. S. DISTRICT COURT WESTERN DIST. ARKANSAB FILED JUN JO 1993 CHRIS R. JOHNSON, UNITS BY PLANE HENRY
	U. S. DISTRICT COURT WESTERN DIST. ARKANSAB FILED JUN 30 1993 CHRIS R. JOHNSON, UMAR BY PLICE TAWN THEORY CIME

#### IN THE UNITED STATES DISTRICT COURT WESTERN DISTRICT OF ARKANSAS TEXARKANA DIVISION

#### BRYANT, ATTORNEY GENERAL DF ARKANSAS

PLAINTIFF

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NO. 92-4152

STATES ENVIRONMENTAL PROTECTION AGENCY, M. BROWNER, ADMINISTRATOR, and the TEXAS COMMISSION, JESUS GARZA, DIRECTOR

DEFENDAN'IS

#### PLAINTIFF'S MOTION FOR CASE DISMISSAL

W COMES, Plaintiff, the State of Arkansas, and for its for Case Dismissal states:

Winston Bryant, on behalf of the State of Arkansas, the above action in the United States District Court western District of Arkansas, Texarkana Division, an Winston Eryant, Attorney General, State of Arkansas ted States Environmental Protection Agency et al., No.

White the source in dispute wred.

The State of Arkansas, the United States inmental Protection Agency ("USEPA"), and the Texas Commission ("TWC") wish to avoid the expense and of litigation, and to this end have agreed to resolve dispute out of court, without any admission whatsoever alf of any party to this case.

It is hereby stipulated and agreed between iff State of Arkansas and defendants USEPA and the TWC he claims by the State of Arkansas against the USEPA b TWC in Civil Action No. LR-C-92-4152 be dismissed t prejudice, all matters in controversy for which said was brought against the USEPA and the TWC having been resolved and compromised.

The State of Arkansas, the USEPA and the TWC agree t their own costs and attorney's fees with respect of Action No. LR-C-92-4152.

EREFORE, PREMISES CONSIDERED, Plaintiff requests that art dismiss without prejudice Civil Action No.

Respectfully submitted,

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WINSTON BRYANT Attorney General

BY:

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-4152.

CHARLES L. MOULTON, #91105

Assistant Attorney General 323 Center St., Suite 200 Little Rock, AR 72201-2610 (501) 682-2007

Attorneys for Plaintiff

#### CERTIFICATE OF SERVICE

Charles L. Moulton, Assistant Attorney General, do Certify that I have served the foregoing on all of record by U.S. Mail, postage prepaid, on day of June, 1993, at the addresses shown below.

NAMES AND ADDRESSES OF COUNSEL SERVED

-3-

erwick Terrill Int Attorneys General 548 TX 78711-2548 Mr. Claude Hawkins Assistant U.S. Attorney P.O. Box 1524 Fort Smith, AR 72092

hua M. Levin Mental Defense Section States Department of Justice x 23986 ton, DC 20025-3986

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#### Charles L. Moulton

U. S. DISTRICE COUN ESTERN DIST. ARKANSA FILED

#### IN THE UNITED STATES DISTRICT COURT WESTERN DISTRICT OF ARKANSAS TEXARKANA DIVISION

CHRIS R. JOHNSON, Clei

PEATNTIFF

By

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DEC 21 1992

WINSTON BRYANT, ATTORNEY GENERAL STATE OF ARKANSAS

v.

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92-4152

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WILLIAM H. REILLY, ADMINISTRATOR, AND THE TEXAS WATER COMMISSION, JESUS GARZA, DIRECTOR

DEFENDANTS

#### PLAINTIFF'S ORIGINAL COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

COMES NOW Plaintiff, Winston Bryant, Attorney General of the State of Arkansas, (Attorney General) and for his complaint for injunctive and declaratory relief against Defendants, United States Environmental Protection Agency, ("EPA") William H. Reilly, Administrator, and the Texas Water Commission, ("TWC") Jesus Garza, Director, states as follows:

I.

#### INTRODUCTION

This case is a civil action pursuant to 28 U.S.C. §
 1331, the Resource Conservation and Recovery Act, ("RCRA")
 42 U.S.C. § 6901 et seq., and the Comprehensive
 Environmental Response, Compensation, and Liability Act
 ("CERCLA or Superfund"), 42 U.S.C. § 9601 et seq. The
 Defendants have violated the above laws by failing to
 coordinate their assessment, investigation and planning of

the remediation of the Texarkana Wood Preserving Company Superfund site ("TWPC site" or "site") with the appropriate Arkansas state officials in violation of Section 104(c)(2) of CERCLA, by failing to properly notify Arkansas residents of the assessment, investigation and planning of the remediation of the TWPC site in violation of Section 105, 42 U.S.C. § 9605 and Section 121, 42 U.S.C. § 9621, and, by failing to prepare a Remedial Investigation/Feasibility Study ("RI/FS") and Record of Decision ("ROD") in accordance with the requirements of Section 104, 42 U.S.C. § 9604, Section 105, 42 U.S.C. § 9605, and 40 C.F.R. 300.430.

#### II.

#### JURISDICTION

2. Jurisdiction of the Court to hear this action is provided by 28 U.S.C. § 1331, as this action involves one or more federal questions. Jurisdiction is also provided by RCRA's provision for jurisdiction of the federal courts to hear citizens suits, 42 U.S.C. § 6972(a), and CERCLA's provision for jurisdiction of the federal courts to hear citizens suits, 42 U.S.C. § 9659(c).

#### III.

#### VENUE

Venue is proper in this Court pursuant to 42 U.S.C.
 § 6972(a) and 42 U.S.C. § 9659(b).

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#### PARTIES

IV.

4. Plaintiff Winston Bryant, Attorney General of Arkansas, is the chief legal officer of the State of Arkansas with his principal office located in Little Rock, Arkansas. The Arkansas Attorney General has both statutory and common law authority to initiate civil lawsuits to enforce both State and Federal environmental laws in order to preserve, protect and conserve Arkansas' environment.

5. Defendant TWC, Jesus Garza, Executive Director, is an agency to the State of Texas with its principal office located in Austin, Texas. The TWC is charged with administering and enforcing state and federal hazardous waste laws and has certain regulatory authority over hazardous waste management and hazardous site cleanup within the State of Texas.

6. Defendant United States EPA, William Reilly, Administrator, has certain statutory and regulatory authority over hazardous waste management and hazardous site cleanups on a national level.

#### V. FACTUAL ALLEGATIONS

7. The site which is the subject of this action is located in Bowie County, Texas approximately 2800 feet due west of the Miller County Arkansas line. The site was originally a wood preserving operation which commenced operations in 1909 and ceased operations in 1984.

8. There are two residential neighborhoods and some businesses within a half mile radius of the site. In addition, a domestic water well exists approximately 1900 feet southeast of the site and approximately 200 people are served by groundwater within a 3 mile radius of the site.

9. The site is approximately 25 acres in size and consists of abandoned surface impoundments, primary process areas and former work areas.

10. Environmental hazards have emanated from the site due to leakage and overflow of waste fluids from the surface impoundments, the spillage of fluids in process work areas, and from poor housekeeping practices when the wood preserving operation was active.

11. In April of 1987, the EPA and the TWC signed a cooperative agreement which authorized the TWC to execute an RI/FS at the site.

12. The RI/FS investigation by the EPA and the TWC have revealed that on-site waste waters, sludges and soils are contaminated with pentachlorophenol, creosote and dioxin compounds.

13. A community relations plan for the TWPC site was finalized in December of 1987. This document lists contacts and interested parties in the government and the local community. 14. The Record of Decision ("ROD") for the TWPC site was signed by the EPA on September 25, 1990 with the concurrence of the TWC. The final decision for remediation at the site involves two techniques, one for the soils and another for the shallow groundwater. The chosen remediation alternative for the soils is thermal destruction and backfilling. 00168

15. Thermal destruction, or incineration, is the controlled combustion of organic wastes, in this case the contaminated soils and sludges which exist at the site.

16. According to the EPA, the EPA requires an incinerator to demonstrate a destruction and removal efficiency ("DRE") rate of 99.99998 prior to the incineration of dioxins. This performance is demonstrated in a trial burn with a surrogate material of principal organic hazardous constituent ("POHC") which is more difficult to burn than dioxin.

17. According to the EPA, this DRE of 99.9999% means that one pound of residuals for every million pounds introduced into the incinerator may remain and it is the EPA's belief that this standard, based on current knowledge, protects human health and the environment.

18. In August of 1992, the Arkansas Attorney General's office was contacted by a number of Texarkana, Arkansas residents who complained about the public process that had been utilized by the EPA and the TWC during the RI/FS, ROD

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and other phases of this project.

19. These citizens complained to the Arkansas Attorney General that they had not been sufficiently informed by the EPA and the TWC about the nature of the remediation and they had not been made aware of other pertinent information relative to the site.

20. In early September of 1992, the Attorney General's office initiated its verification process to clarify these citizen complaints and determine whether they were valid.

21. A review of an updated Community Relations Plan dated May of 1991 by the Arkansas Attorney General's office verified that, out of 178 interested groups and individuals listed in Appendix A of the updated Community Relations Plan, a total of 6 had Arkansas addresses.

22. Further investigation of the proposed project gave rise to additional concerns on the part of the Arkansas Attorney General's office. A September 22, 1992 inter-office EPA memorandum related to the incineration of wastes containing low-levels of dioxins has confirmed that an incinerator which meets the regulatory DRE on a harder-to-burn surrogate compound used in a trial burn may have difficulty in achieving a 99.9999% DRE on dioxin itself.

23. The maximum concentration of dioxin equivalents found in the soil and sludges at the TWPC site are low levels, 76 parts per billion ("ppb") and 302 ppb respectively.

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24. For this reason, the risk assessment calculations performed in the course of the TWPC site RI/FS are not representative of the actual risk at the site.

25. The EPA believes it appropriate to perform site-specific risk assessments for incinerators proposing to burn such wastes with low levels of dioxins, as well as risk assessments on the site itself, to demonstrate that the incinerator's performance standards are protective of human health and safety.

26. According to the EPA, such site-specific risk assessment should use actual chlorinated dioxin and furan emissions data obtained while the incinerator is burning low-concentration dioxin wastes.

27. The September 1990, ROD does not require such a risk assessment on the emissions which will eminate from the proposed incinerator.

28. Based upon a review of the administrative record relative to this project, no federal or state document requires such a risk assessment to be performed on the emissions which will be produced by the proposed incinerator.

29. The dioxin contaminated soils and sludges scheduled to be incinerated at the TWPC site will result in the discharge of toxic chemicals including polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, their devivatives and 2,3,7,8 tetra-chloro-dibenzo-p-dioxin ("2,3,7,8 TCDD").

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30. These 2,3,7,8 TCDD and dioxin equivalent emissions will undoubtedly contaminate the air, water and food chain in the Texarkana area, including the area of Texarkana which rests in Arkansas.

31. The EPA has assigned a cancer potency value of .156 /ng/kg-day to 2,3,7,8 TCDD based on toxicolgical tests conducted on rats.

32. This .156 /ng/kg-day value means that EPA has estimated that lifetime exposure to 1 nanogram of 2,3,7,8 TCDD would result in 1,560 additional cases of cancer in a population of 10,000.

33. The minimal risk level for non-cancer effects from exposure to dioxin, as established by the federal Agency for Toxic Substances and Disease Registry ("ATSDR"), is .000000001 mg/kg-day 2,3,7,8 TCDD.

34. The formula used by the EPA for calculating risk is R=1-e(-q\*d). In this formula, R is the risk as decimal (e.g. R=.0001 means cancer death per thousand of exposed population), e is a number approximately 2.7 in size, q is the cancer potency of the chemical in question, and d is the dose ingested by each of the exposed persons.

35. In order to determine that the risk and expected harm from the incinerator emissions will actually be less than the screening level risk calculation described above, a detailed written multi-pathway food chain and inhalation risk assessment must be performed based on actual emissions

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data.

36. This risk assessment would have to include the types and abundance of food chain plants and animals in the areas where the 2,3,7,8 TCDD and dioxin equivalents would be deposited, airborne 2,3,7,8 TCDD and dioxin equivalents deposition rates to soil and water in the area, as well as data on the quantities of these plants and animals that would eventually be consumed locally or non-locally.

37. To date, neither the EPA, nor the TWC, has indicated any intent to assess the risk to Arkansans and Arkansas' environment (as well as Texans and Texas' environment) that will result from the proposed incineration at the TWPC site, even though official communications from EPA indicate that such an assessment should be executed.

38. Any such risk assessment must also include notice to any and all effected individual which reside on the Arkansas side of Texarkana. Such notice would also necessitate public review and opportunity to comment.

#### COUNT I

39. Plaintiff hereby reasserts the allegations in paragraphs 2 through 38.

40. CERCLA and its implementing regulations at 42 U.S.C. § 9616(d) and 40 C.F.R. § 300.430 respectively require an RI/FS to be prepared prior to selection and implementation of a remedial action at a Superfund NPL site.

41. As part of the remedial action process, CERCLA and

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regulations at 42 U.S.C. § 9621(b) and (d) and 40 C.F.R. § 300.430 (e) and (f) require that remedial goals establish acceptable exposure levels that protect public health and the environment as well as prohibiting the selection of a remedy an unacceptable exposure of risk.

42. In addition to regulatory standards that may be applicable to contaminants in air, water and soil, risk assessments are integral to the remedial decision-making process at a Superfund site.

43. Risk assessments are required by CERCLA, 42 U.S.C. § 9605, the National Contingency Plan to help determine the need for remedial activity at a site, to help evaluate the levels of chemicals that can safely remain on-site, and to aid in the selection of a remedy by comparing the potential human health and environmental effects of various remedies.

44. The Defendants have failed to conduct an RI/FS that adequately assesses the proposed incineration remedy. A risk assessment of the proposed incineration must be conducted in order to meet the mandates of 42 U.S.C. § 9605.

#### COUNT II

45. Plaintiff hereby reasserts the allegations in paragraphs 2 through 44.

46. RCRA regulations at 40 C.F.R. § 264.343 require that the incineration of 2,3,7,8 TCDD and other dioxin equivalents be destroyed at a DRE of 99.99998.

47. The EPA has documented that incinerators like the

one proposed at the TWPC site will be unable to attain the required DRE of 99.9999% on materials which are contaminated with low-levels of 2,3,7,8 TCDD and dioxin equivalents, such as the soils and sludges scheduled to be incinerated at the 000174

TWPC site.

48. Based upon the relationship and data presented in the EPA studies, the incineration of the soils and sludges at levels not exceeding 302 ppb will result in a DRE of 2,3,7,8 TCDD and other dioxin equivalents possibly lower than 99.99%.

49. Defendants EPA and the TWC have taken no action to assess the risks associated with achieving a lower DRE than the required 99.9999% in violation of 40 C.F.R. 300.430 and 42 U.S.C. § 9605.

#### COUNT III

50. Plaintiff hereby reasserts the allegations in paragraphs 2 through 49.

51. The incineration of soils and sludges contaminated with low-levels of 2,3,7,8 TCDD and other dioxin equivalents will result in the release into the environment of some level of 2,3,7,8 TCDD and dioxin equivalents which are considered to be some of the most potent cancer causing agents known.

52. The Defendants are aware of the uncertainty which surrounds the incineration of these type of wastes, but have not documented any plans which delineate how that risk is to

be assessed.

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53. This failure on the part of the Defendants to acknowledge or engage in any action to assess this risk on constitutes an imminent and substantial endangerment to the public, in violation of RCRA, 42 U.S.C. § 6972 (a)(2).

#### COUNT IV

54. Plaintiff hereby reasserts the allegations in paragraphs 2 through 53.

55. CERCLA requires at 42 U.S.C. § 9605 and 40 C.F.R 300.430 that community relations requirements which are intended to promote active communication between communities affected by discharges or releases be implemented as part of an RI/FS and remediation of a Superfund site.

56. As part of this community relations plan, government officials are obligated to conduct interviews with local officials, community residents, public interest groups, or other interested or alfected parties, as appropriate, to solicit their concerns, information needs, and how or when citizens would like to be involved in the Superfund process. 40 C.F.R. 300.415 (3)(i).

57. The residents of Texarkana, Arkansas feel that the pending incineration project will have an adverse affect on their air quality and health because the predominately west-to-east winds will carry the majority of emissions into Texarkana, Arkansas.

58. As stated above, out of 178 interested parties

listed in the updated Community Relations Plan dated May 1991, 6 have Arkansas addresses.

59. Defendants failure to include affected residents from Texarkana, Arkansas as well as other affected Arkansas residents constitutes a violation of 42 U.S.C. § 9605 and 40 C.F.R. 300.430.

#### RELIEF REQUESTED

WHEREFORE, Plaintiff respectfully requests this honorable Court to:

A. Issue an order declaring the Defendants' proposed incineration plan and actions implementing that plan to be in violation of 42 U.S.C. § 9605, 42 U.S.C. § 6972 (a)(2) and 40 C.F.R. 300.430; and,

B. Issue a permanent injunction directing the EPA and the TWC to cease the proposed plan to incinerate the dioxin contaminated soils and sludges at the TWPC site until such time that the TWC or the EPA initiates the preparation of a risk assessment of the impact of the incineration project; and,

C. Issue a mandatory injunction order requiring the agency responsible for conducting such a risk assessment to assure total public input into the risk assessment process, and all other phases of the proposed project, by relating such information to the affected community in its entirety, not just those effected who reside in Texas; and,

D. Issue a mandatory injunction order which provides a

public comment period of not less than 60 days from the time any such risk assessment is conducted on the proposed incineration project; and,

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E. Award to Plaintiff costs and reasonable attorney and expert witness fees; and,

F. Grant such other and further relief as this Court deems just and equitable.

Respectfully submitted,

WINSTON BRYANT Attorney General

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CHARLES L. MOULTON, #91105 Assistant Attorney General 323 Center St., Suite 200 Little Rock, AR 72201-2610 (501) 682-2007

Attorney for Plaintiff

## **APPENDIX D**

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## **RESPONSIVENESS SUMMARY**

Responsiveness Summary Texarkana Wood Preserving Company Superfund Site - Operable Unit One ROD Amendment No. 1

This Responsiveness Summary was prepared to provide written responses to comments submitted regarding the "Texarkana Wood Preserving Company Superfund Site - Operable Unit One, Proposed Record of Decision Amendment No. 1."

EPA received no public comments for the proposed plan during a 30 day comment period from November 5, 1997 through December 5, 1997. On November 13, 1997 EPA held a public meeting to receive comments regarding the proposed remedy. During the meeting one community leader endorsed the remedy and there were no comments opposing the remedy. The transcript of the meeting is included in the administrative record.

Although no one submitted comments during the comment period TNRCC reviewed the proposal prior to the comment period and submitted its comments via a September 29, 1997 letter. The TNRCC letter is attached and EPA's responses to the State's comments are provided below.

TNRCC Comment: The TNRCC objects to EPA's interpretation as to what constitutes a "principal threat." In the 1990 ROD, the contaminated soil was determined to be a principal threat to the human health and the environment. The soil was considered a principal threat to human health due to its unacceptable risks posed via direct contact and ingestion and a principal threat to the environment because of the soil's leaching potential to the groundwater. This concept employed in the 1990 ROD in determining what is considered a principal threat does not differ from what is stated in the EPA guidance document "A Guide to Principal Threat and Low Level Threat Waste."

It is our opinion that parts of the quotation, defining a principal threat, from the EPA guidance document cited in Section 1.d.i of the Amendment, are incomplete and taken out of context and that the conclusion drawn in Section 1.d.ii is misleading. As illustrated below, the bold type is the part of the quotation which was not cited in the Amendment but is a very much part of the concept of the guidance document.

"Determinations as to whether a source material is a principal or low level threat should be based upon

the inherent toxicity as well as a consideration of the physical state of the material (e.g., liquid), the potential mobility of the wastes in the particular environmental setting, and the liability and degradation products of the material. However, this concept of principal and low level threat waste should not necessarily be equated with the risk posed by site contaminants via various exposure pathways. Although the characterization of some material as principal or low level threats takes into account toxicity (and is thus related to degree of risk posed assuming exposure occurs), characterizing a waste as principal threat does not mean that the waste poses the primary risk at the site."

The TNRCC objects to EPA's conclusion stated in Section 1.d.ii of the Amendment which states that "EPA does not consider soil contamination on site a principal threat since the baseline risk assessment did not identify any health risk from dermal contact or inadvertent ingestion of Dioxin/Furans or pentachlorophenol contaminated soil to be greater than 1 in 1000 (1x10)<sup>3</sup>)." There are two points in which we object to that statement. First, as stated in the guidance document, the concept of principal threat waste should not be equated with the risk posed by site contaminants via the exposure pathways. As described in the 1990 ROD the soil action level for the pentacholorphenol was established to protect the ground water and the environment and not to reduce the potential risk posed by the contaminants via the exposure pathways. Second, the "threshold level" of 1 in 1000 established in the referenced guidance document addresses the combined potential risk of toxicity and mobility of source material and not on toxicity alone. Therefore, it is our opinion that EPA's conclusion that the contaminated soil (source material) is not considered a principal threat does not coincide with the concept as established in the guidance document.

**EPA Response:** In response to the TNRCC's comment regarding EPA equating risk with a principal threat, the guidance does allow EPA to do so for the following reason. "A Guide to Principal Threat and Low Level

Threat Waste" states, "... the concept of principal and low level threat should not "necessarily" be equated with the risk posed by site contaminants via various exposure pathways." Since the guidance uses the word necessarily, we interpret it to mean that EPA could use risk if so desired to determine if the contaminant is a principal threat, and to substantiate that interpretation the guidance further states "... where toxicity and mobility of source material combine to pose a potential risk of 10<sup>-3</sup>, or greater, generally treatment alternatives should be evaluated." This last statement indicates that risk can be used to determine if a contaminant is a principal threat. In this case, since there is no risk greater than 10<sup>-3</sup> risk was used as a factor to determine that the contaminants are a low level threat.

In response to the TNRCC's comment regarding the soil action level for PCP. We agree that the soil action level for PCP was chosen to establish a groundwater protection level. However, since the source material, i.e. soil contaminated with PCP, can be reliably contained we determined that it is a low level threat. The EPA guidance states "Low level threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of release."

TNRCC Comment: TNRCC continues to object to EPA's evaluation that the remedy, a cap, reduces toxicity. As part of the remedy selection process, the Nation Contingency Plan established nine criteria in section 300.430(e)(9)(iii) to use in evaluating alternatives and in selecting a remedy. It is our opinion that EPA did not follow the guideline as set forth in the regulation in assessing the remedy to the evaluation criterion of "Reduction of Toxicity, Mobility, or Volume through Treatment." The objectives of this criterion is to evaluate the effect of a alternative to reduce toxicity, mobility or volume through treatment. In evaluating the selected remedy, a cap, to this criterion, EPA stated in Section 5.d of the Amendment that "while EPA recognizes this criteria applies to treatment, a cap will reduce toxicity. Substances become toxic only when they reach a target organ through an exposure pathway in a prescribed dose. Therefore, a cap reduces toxicity by severing the most likely potential exposure pathways, dermal adsorption and ingestion, thus preventing a target organ from receiving a toxic dose." Since cap is not a treatment, it does not meet this criteria. Furthermore, the TNRCC disagrees with this definition of toxicity. It is our opinion that the above description is more in line with the definition of risk. According to the TNRCC toxicologist, toxicity is defined as "th inherent capability of a compound to cause advers effect \* While TNRCC agrees that by severing th exposure pathway, the potential risk of exposure to the contaminants is reduced, but the inherent toxicity of substance does not change. This is in accordance wi EPA's Risk Assessment Guidance for Superfund: Volume I Part A and Part C. In Part A of the guidance document, toxicity assessment is performed in two steps: 1) hazard identification (the determination of whether exposure to an agent can cause an adverse health effect, and 2) dose response evaluation. Together, the toxicity assessment of a chemical of concern and the exposure assessment of the site are the two elements that characterize the potential risk of the site. Therefore, by severing the exposure pathways, the risk can be reduced.

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Additionally, on page 15 of Part C of the referenced document, it states, "...if an alternative relies on engineering or institutional controls to reduce or eliminate exposure to contaminated media, then the ability of these controls to maintain protectiveness should be considered. These types of remedies provide protection by reducing or eliminating exposure to hazardous substances rather than eliminating the hazardous substances or reducing their concentrations, volumes, or toxicity. Failure of such remedies could lead to an increase in exposure and therefore an increase in risk." Therefore, applying the concepts from the NCP and EPA's guidance document, one cannot conclude that a cap can reduce toxicity.

**EPA Response:** EPA recognizes that a cap does not reduce toxicity through treatment, and EPA believes the amendment clearly states this fact. However, as the amendment states, a cap can reduce toxicity by severing the exposure pathway, as EPA expressed in the amendment with the following statement, "Substances become toxic only when they reach a target organ through an exposure pathway in a prescribed dose. Therefore, a cap reduces toxicity by severing the most likely potential exposure pathways, dermal adsorption and ingestion, thus preventing a target organ from receiving a toxic dose."

SUPERFUND ENG

Barry R. McBee, Chairman R. B. "Ralph" Marquez, Commissioner John M. Baker, Commissioner Dan Pearson, Executive Director



#### **TEXAS NATURAL RESOURCE CONSERVATION COMMISSION**

Protecting Texas by Reducing and Preventing Pollution

September 29, 1997

#### VIA FACSIMILE & U.S. MAIL

Mr. Glenn Celerier, P.E. (6SF-AT) U.S. Environmental Protection Agency, Region 6 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202-2733

Re: Texarkana Wood Preserving Company Superfund Site (TWPC) ROD Amendment

Dear Mr. Celerier:

The Texas Natural Resource Conservation Commission (TNRCC) is sending this letter to document our concerns regarding the Record of Decision (ROD) Amendment No. 1 for the Texarkana Wood Preserving Company Superfund Site (TWPC). On September 24, 1997, the TNRCC received the latest version of the ROD Amendment No. 1 (Amendment). Upon reviewing the Amendment, the TNRCC would like to express our continuing objection to two major topics addressed in the Amendment. Our concerns focus on the Environmental Protection Agency's (EPA) interpretation and conclusion on the subjects of a "principal threat" classification and the evaluation of a remedy to reduce "toxicity." The TNRCC's rationale for our objections are described in the following paragraphs.

As we have stated previously, we believe sections 1.d.i and 1.d.ii of the Amendment are misleading. The TNRCC objects to EPA's interpretation as what constitutes a "principal threat." In the 1990 ROD, the contaminated soil was determined to be a principal threat to the human health and the environment. The soil was considered a principal threat to human health due to its unacceptable risks posed via direct contact and ingestion and a principal threat to the environment because of the soil's leaching potential to the groundwater. This concept employed in the 1990 ROD in determining what is considered a principal threat does not differ from what is stated in the EPA guidance document "A Guide to Principal Threat and Low Level Threat Waste."

It is our opinion that parts of the quotation, defining a principal threat, from the EPA guidance document cited in Section 1.d.i of the Amendment, is incomplete and taken out of context and that the conclusion drawn in Section 1.d.ii is misleading. As illustrate below, the bold type is the part

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Mr. Glenn Celerier, P.E., USEPA September 29, 1997 Page 2

of the quotation which was not cited in the Amendment but is a very much part of the concept of the guidance document.

"Determinations as to whether a source material is a principal or low level threat should be based upon the inherent toxicity as well as a consideration of the physical state of the material (e.g., liquid), the potential mobility of the wastes in the particular environmental setting, and the lability and degradation products of the material. However, this concept of principal and low level threat waste should not necessarily be equated with the risk posed by site contaminants via various exposure pathways. Although the characterization of some material as principal or low level threats takes into account toxicity (and is thus related to degree of risk posed assuming exposure occurs), characterizing a waste as principal threat does not mean that the waste poses the primary risk at the site."

The TNRCC objects to EPA's conclusion stated in Section 1.d.ii of the Amendment which states that "EPA does not consider soil contamination on site a principal threat since the baseline risk assessment did not identify any health risk from dermal contact or inadvertent ingestion of Dioxin/Furans or pentachlorophenol contaminated soil to be greater than 1 in 1000  $(1x10^3)$ ." There are two points in which we object to that statement. First, as stated in the guidance document, the concept of principal threat waste should not be equated with the risk posed by site contaminants via the exposure pathways. As described in the 1990 ROD the soil action level for the pentacholorphenol was established to protect the ground water and the environment and not to reduce the potential risk posed by the contaminants via the exposure pathways. Second, the "threshold level" of 1 in 1000 established in the referenced guidance document addresses the combined potential risk of toxicity and mobility of source material and not on toxicity alone. Therefore, it is our opinion that EPA's conclusion that the concept as established in the guidance document addresses the considered a principal threat does not coincide with the concept as established in the guidance document.

Finally, the TNRCC continues to object to EPA's evaluation that the remedy, a cap, reduces toxicity. As part of the remedy selection process, the Nation Contingency Plan established nine criteria in section 300.430(e)(9)(iii) to use in evaluating alternatives and in selecting a remedy. It is our opinion that EPA did not follow the guideline as set forth in the regulation in assessing the remedy to the evaluation criterion of *Reduction of Toxicity, Mobility, or Volume through Treatment.* " The objectivies of this criterion is to evaluate the effect of a alternative to reduce toxicity, mobility or volume through treatment. In evaluating the selected remedy, a cap, to this criterion, EPA stated in Section 5.d of the Amendment that *"while EPA recognizes this criteria applies to treatment, a cap will reduce toxicity. Substances become toxic only when they reach a target organ through an exposure pathway in a prescribed dose. Therefore, a cap reduces toxicity by severing the most likely potential exposure pathways, dermal adsorption and ingestion, thus preventing a target organ from receiving a toxic dose." Since cap is not a treatment, it does* 

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Mr. Glenn Celerier, P.E., USEPA September 29, 1997 Page 3

not meet this criteria. Futhermore, the TNRCC disagrees with this definition of toxicity. It is our opinion that the above description is more in line with the definition of risk. According to the TNRCC toxicologist, toxicity is defined as "the inherent capability of a compound to cause adverse effect." While TNRCC agrees that by severing the exposure pathway, the potential risk of exposure to the contaminants is reduced, but the inherent toxicity of a substance does not change. This is in accordance with EPA's Risk Assessment Guidance for Superfund: Volume I Part A and Part C. In Part A of the guidance document, toxicity assessment is performed in two steps : 1) hazard identification (the determination of whether exposure to an agent can cause an adverse health effect, and 2) dose response evaluation. Together, the toxicity assessment of a chemical of concern and the exposure assessment of the site are the two elements that characterize the potential risk of the site. Therefore, by severing the exposure pathways, the risk can be reduced.

Additionally, on page 15 of the Part C of the referenced document, it states, "...if an alternative relies on engineering or institutional controls to reduce or eliminate exposure to contaminated media, then the ability of these controls to maintain protectiveness should be considered. These types of remedies provide protection by reducing or eliminating exposure to hazardous substances rather than eliminating the hazardous substances or reducing their concentrations, volumes, or toxicity. Failure of such remedies could lead to an increase in exposure and therefore an increase in risk." Therefore, applying the concepts from the NCP and EPA's gudiance document, one cannot conclude that a cap can reduce toxicity.

Finally, the TNRCC requests that EPA consider these comments and make appropriate changes to the Amendment.

If you should have any questions regarding this matter please call me at (512) 239-2443.

Sincerely,

Fay Duke Superfund Engineering Section Pollution Cleanup Division

FD/

cc: Mr. Earl Hendrick, EPA Region 6, (6SF-AT) Mr. Gus Chavarria, EPA Region 6 (6SF-AT)