

Memorandum of Understanding

between

The American Forest & Paper Association

and the

United States Environmental Protection Agency

Regarding the Implementation of the

Land Application Agreements

Among

AF&PA Member Pulp and Paper Mills

and the

U.S. Environmental Protection Agency

I. Background

On May 10, 1991, in fulfillment of a consent decree in EDF v. Thomas, the U.S. Environmental Protection Agency (EPA) published proposed rules under section 6 of the Toxic Substances Control Act (TSCA) to regulate the land application of sludge produced from the treatment of wastewater effluent of Kraft pulp and paper mills that use chlorine and chlorine-derivative bleaching processes (56 FR 21802; Docket OPTS-62100). The proposed regulation sought to establish a final maximum dioxin/furan soil concentration of 10 parts per trillion (ppt) toxic equivalency (TEQ) and site management practices for the land application of bleached Kraft sludge.

In November 1992, the American Forest & Paper Association (AF&PA), on behalf of its member pulp and paper mills, and the EPA agreed to develop a voluntary program aimed at reducing exposure to dioxins and furans in the practice of land applying pulp and paper mill sludge.

In December 1992, EPA informed the plaintiffs in EDF v. Thomas that EPA would defer its decision on the promulgation of the proposed sludge land application rule pending promulgation in 1995 of the integrated rulemaking for effluent guidelines and Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry. The EPA Offices of Water and Air & Radiation proposed these effluent guidelines on October 29, 1993.

EPA believes that the pending integrated effluent guidelines and MACT standards could have a significant impact on reducing dioxin contamination levels in sludge. Available data on the impact of process changes on dioxin/furan levels indicate that TSCA rulemaking to control sludge land application may not be necessary. Nevertheless, EPA believes that the impact of the Best Available Technology (BAT) effluent limitation on sludge quality should be fully evaluated before EPA makes a final decision on the need for TSCA regulation of sludge land application. In order to address any interim Agency concerns for land application of pulp and paper mill sludge before the integrated rules are promulgated and implemented, however, EPA decided to enter into negotiations with AF&PA to develop an industry environmental stewardship program for the practice of sludge land application. Each paper mill participating in this program would sign a Memorandum of Understanding ("Land Application Agreement") establishing standards and land management practices for its land application of sludge.

In January 1994, EPA and AF&PA successfully negotiated an agreement governing the land application of pulp and paper mill sludge. While negotiating the Land Application Agreements, EPA and AF&PA recognized that some entity would need to coordinate implementation of specific provisions of the Land Application Agreements, and AF&PA agreed to perform these functions. This Memorandum sets out the functions AF&PA agrees to perform, such as submission of annual reports to EPA, and establishment of an outreach program.

II. Purpose and Scope of Memorandum

AF&PA and EPA enter into this Memorandum of Understanding ("Memorandum") in order to provide for oversight activities needed to implement the Memorandums of Understanding Regarding the Land Application of Pulp and Paper Mill Materials ("Land Application Agreements"). These oversight activities comprise an implementation program for the Land Application Agreements, including submission by AF&PA of Annual Materials Monitoring Reports, and development of an outreach program for member mills.

III. Definitions

- A. All terms used in this Memorandum have the same meaning as in the Land Application Agreements, unless otherwise specified.
- B. **Participating Mill or Mill** - AF&PA member mill that signs a Land Application Agreement with the EPA.

IV. Submission of Annual Materials Monitoring Report

A. Annual Materials Monitoring Report

AF&PA shall receive and compile on an annual basis materials monitoring data from each participating mill and prepare the Annual Materials Monitoring Report. The Annual Materials Monitoring Report for a given year shall be submitted to EPA by April 1 of each following year.

- 1. For those Mills that land apply materials with a dioxin/furan concentration equal to or greater than 10 ppt, AF&PA shall include the following data in the Annual Materials Monitoring Report:
 - a. name of the Mill;
 - b. location of the Mill;
 - c. the TCDD/TCDF concentration of the material based on quarterly or subsequent sampling frequency;
 - d. the maximum/minimum/average and standard deviation of TCDD/TCDF concentration in the material;
 - e. the total number of acres to which material has been land applied;
 - f. the total amount of material by weight applied to the site;
 - g. the location of each site owned or managed by the Mill or its parent company at which material produced by the Mill has been land applied by either street address or other means of identification customarily used in a given locality;

- h. the approximate location within the site of areas to which material has been applied (e.g., the northwest four-hectare portion of the XYZ parcel);
 - i. the date(s) on which materials were applied;
 - j. approximate dates of vegetative seeding and other site stabilization practices.
2. For those mills with a materials dioxin/furan concentration of less than 10 ppt TEQ, AF&PA shall provide the following data in the Annual Materials Monitoring Report:
- a. name of the Mill;
 - b. location of the Mill; and
 - c. the TCDD/TCDF concentration in the material.

V. Outreach Program

A. Publicity

AF&PA shall use the following means to publicize the voluntary stewardship program and the Land Application Agreements. AF&PA shall encourage its member companies to participate in the program by:

- 1. Including information regarding the stewardship program in the AF&PA newsletter.
- 2. Conducting a direct mailing to each AF&PA member explaining the program.
- 3. Providing for discussion of the program and the benefits of the program at AF&PA meetings.
- 4. Contacting appropriate member company officials via telephone to explain the program and its benefits.
- 5. Publicizing in its environmental newsletter the names of its members who have signed a Land Application Agreement with EPA.

B. Annual Survey

AF&PA shall conduct an annual survey of its members to determine to the best of its ability, which of them are land spreading sludge or sludge-derived materials, whether they are participating in the stewardship program, and whether they are adhering to the principles of the stewardship program regardless of their formal participation. AF&PA shall deliver the results of the survey for a given year to EPA by April 1 of each following year.

C. Implementation of the Memorandum

AF&PA shall present the Land Application Agreement to each AF&PA member company land applying materials, and encourage them to sign a Land Application Agreement with EPA and to adhere to the provisions. AF&PA will use the outreach program discussed above and the annual survey to identify mills not now land applying but which decide to do so and to encourage them to commit to the stewardship program.

D. Annual Meeting

When possible, appropriate personnel from AF&PA and EPA shall meet annually to discuss the Annual Materials Monitoring Report, the Annual Survey findings, and other relevant information regarding implementation of the Land Application Agreements.

VI. **Resolution of Disputes**

AF&PA and EPA agree that, should a dispute arise under this Memorandum, the parties will resolve the dispute using the dispute resolution procedures set forth in Attachment C of the Land Application Agreements.

VII. **Responsible Officials**

Red Cavaney, President, or his successor will be responsible for complying with this Memorandum for AF&PA, and Mark A. Greenwood, Director, Office of Pollution Prevention and Toxics, or his successor, will be responsible for complying with this Memorandum for EPA.

VIII. **Notices**

All notices, reports, or submissions required by (or as a result of) this Memorandum shall be sent to the following persons, unless otherwise specified herein:

For EPA: Charles M. Auer, Director
Chemical Control Division (7405)
Environmental Protection Agency
401 M St. SW
Washington DC 20460

For AF&PA: Amy E. Schaffer
Director, Industrial Waste Programs
American Forest & Paper Association
1111 19th Street, N.W.
Washington, D.C. 20036

IX. **Effective Date, Modification, and Term of Agreement**

This Memorandum is effective when executed by both EPA and AF&PA and may be modified only

by written agreement between them. This Memorandum may be terminated by either party upon thirty days prior written notice to the other and will terminate automatically (unless the parties otherwise agree in writing) upon (i) promulgation by EPA of final rules addressing any matter covered by the Land Application Agreements, or (ii) a decision by EPA that, when finalized, the proposed Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards: Pulp, Paper, and Paperboard Category; National Emission Standards for Hazardous Air Pollutants for Source Category: Pulp and Paper Production: Proposed Rule (58 FR 66078; December 17, 1993) resolves EPA's concerns regarding the land application and distribution and marketing of pulp and paper mill materials.

IN WITNESS WHEREOF, the parties have executed this Memorandum as of the later of the dates set forth below.

For the American Forest & Paper Association:

Josephine S. Cooper, Vice-President
Environmental and Regulatory Affairs

Date

For the U.S. Environmental Protection Agency:

Mark A. Greenwood, Director
Office of Pollution Prevention
and Toxics

Date

MEMORANDUM OF UNDERSTANDING

between

P.H. Glatfelter Company

and the

U.S. Environmental Protection Agency

Regarding the

Land Application of Pulp and Paper Mill Materials

Memorandum of Understanding

Regarding the

Land Application of Pulp and Paper Mill Materials

I. Background

On May 10 1991, in fulfillment of a consent decree in EDF v. Thomas, the Environmental Protection Agency (EPA) published a proposed rule under Section 6 of the Toxic Substances Control Act (TSCA) to regulate the use of sludge produced from the treatment of wastewater effluent of Kraft pulp and paper mills using chlorine and chlorine-derivative bleaching processes (56 Fed. Reg. 21802; Docket OPTS-62100). The proposed regulation sought to establish a final maximum dioxin/furan soil concentration of 10 parts per trillion (ppt) toxic equivalency ([TEQ] see Section III.I.) and site management practices for the land application of bleached Kraft sludge.

In November 1992, the American Forest and Paper Association (AF&PA) and EPA agreed to develop a voluntary program aimed at reducing exposure to dioxins and furans in the practice of land applying pulp and paper mill sludge.

In December 1992, EPA informed the plaintiffs in EDF v. Thomas that EPA would defer its decision on the promulgation of the proposed sludge land application rule pending promulgation in 1995 of the integrated rulemaking for effluent guidelines and Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry under the Clean Water Act (33 U.S.C. 1251 et seq.) and the Clean Air Act (42 U.S.C. 7401 et seq.). The EPA Offices of Water and Air & Radiation proposed such guidelines on October 29, 1993.

EPA believes that the pending integrated effluent guidelines and MACT standards could have a significant impact on reducing dioxin contamination levels in sludge. Available data on the impact of process changes on dioxin/furan levels indicate that TSCA rulemaking to control sludge land application may not be necessary. Nevertheless, EPA believes that the impact of the Best Available Technology (BAT) effluent limitation on sludge quality should be fully evaluated before EPA makes a final decision on the need for TSCA regulation of sludge land application. In order to address any interim Agency concerns for land application of pulp and paper mill sludge before the integrated rules are promulgated and implemented, however, EPA decided to enter into negotiations with AF&PA to develop an industry environmental stewardship program for the practice of sludge land application. Each paper mill participating in this program will sign a Memorandum of Understanding ("Memorandum") establishing standards and land management practices for its land application of sludge and sludge-derived materials.

EPA has met with representatives of the AF&PA to discuss the terms of the Memorandum. This Memorandum contains dioxin/furan concentration limits which the industry may achieve using reasonable practices, provisions for site management, and monitoring and recordkeeping practices.

The voluntary stewardship program does not apply to mills land applying or distributing and

marketing sludge and sludge-derived products in the states of Wisconsin, Ohio, and Maine because these states have established regulations or guidelines which specifically address land application of pulp and paper mill sludge, and contain numerical standards for dioxin(s) and furan(s), site management practices, and reporting and record keeping requirements.

II. Purpose and Scope of Memorandum of Understanding

- A. The P.H. Glatfelter Company ("the Mill") and the U.S. Environmental Protection Agency ("EPA") enter into this Memorandum of Understanding ("Memorandum") in order to establish (technology-based) TCDD/TCDF concentration limits, application site management practices, and monitoring, record keeping, and reporting requirements for materials that are produced by the treatment of wastewater effluent from Kraft and sulfite pulp and paper mills using chlorine and chlorine-derivative bleaching processes and are subsequently either land applied or distributed and marketed.
- B. Except as provided below, this Memorandum applies to the land application and distribution and marketing of materials with a TCDD/TCDF concentration equal to or greater than 10 ppt TEQ. Materials with TCDD/TCDF concentrations of less than 10 ppt TEQ are excluded from this Memorandum, except for the monitoring, testing, distribution and marketing, and reporting requirements set out in Sections IV.B.1.-6., IV.B.8., IV.C., IV.D.1.h., IV.E.2., and IV.F.3. The Memorandum also does not apply to (i) materials or materials incorporated into products registered under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136-136y ("FIFRA"), (ii) the land application of materials in Wisconsin, Ohio, Maine, (iii) materials stored or disposed of in piles, lagoons, settling ponds, or landfills, unless these materials are removed from such facilities for the purpose of land application, and (iv) materials used as landfill cover where the landfills are regulated by federal, state or local approvals that include evaluation of landfill cover materials, unless these materials are removed from such facilities for the purpose of land application.

III. Definitions

- A. **Distribution and marketing** - the give-away or sale of materials by the Mill to persons not party to this Memorandum.
- B. **Intermittent stream** - a channel between defined banks created by the action of surface water and characterized by the lack of terrestrial vegetation or by the presence of a bed, devoid of topsoil, containing waterborne soil deposits, exposed soil parent material, or bedrock.
- C. **Land application or land applied** - procedure in which materials are spread onto or incorporated into the land at appropriate agronomic rates to condition soil, retain soil moisture, or provide nutrients to increase vegetative biomass. These terms do not include storage or disposal of materials in lagoons, settling ponds, or landfills or use of materials for landfill cover, nor do they include use of materials or materials incorporated into products registered under FIFRA in accordance with their labels.

- D. **Material** - sludge or a sludge-derived product, which is land applied.
- E. **Significant process change** - the addition of a new manufacturing process or product resulting in a change in the character of the resulting waste or a significant change in the method of waste treatment resulting in a material change in the character, location or volume of a discharge to waters of the United States.
- F. **Sludge** - solid materials removed from wastewater treatment systems, which are generated by Kraft and sulfite pulp mills or Kraft and sulfite integrated pulp and paper mills, using chlorine or chlorine-derivative bleaching processes.
- G. **Sludge-derived product** - a product composed, in whole or in part, of sludge.
- H. **Statistically significant increase** - increase in TCDD/TCDF levels over baseline levels determined by using either the control chart procedure adopted by EPA's Office of Solid Waste ("Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities," EPA/530-SW-89-026, February 1989 and Draft Addendum, July, 1992), or another statistical test method submitted by the Mill and approved by EPA or state regulatory officials.
- I. **TEQ** - the toxicity of individual CDD/CDF or of mixtures of CDD/CDF as an equivalent concentration of 2,3,7,8- tetrachlorodibenzo-p-dioxin ("TCDD"). For purposes of this Memorandum, the TEQ is limited to the sum of the concentration of the measured 2,3,7,8-TCDD plus one-tenth the measured 2,3,7,8-TCDF.

IV. Stewardship Principles

A. Dioxin/Furan Concentration Limits and Related Provisions

I. Dioxin/Furan TEQ Limits

The Mill shall avoid land application of materials, which exceed the following concentrations of TCDD and TCDF TEQ by testing the materials in accordance with Section IV.B.

a. Maximum TCDD/TCDF Concentration:

A maximum TCDD/TCDF concentration limit of 50 parts per trillion (ppt) TEQ shall be established for materials applied to land. If the TCDD/TCDF concentration of the material is above 50 ppt, the Mill shall follow the provisions set forth in Section IV.B.7.

b. Maximum TCDD/TCDF Soil Concentration:

Except as specified in Section IV.D.1.h., the Mill shall establish a maximum TCDD/TCDF soil concentration of less than 10 ppt TEQ after the land application of materials. The Mill shall be considered out of compliance if the soil concentration is greater than or equal to 10 ppt.

2. Calculation of Soil Concentration

- a. Except as specified in Section IV.D.1.h., the formula set out in Attachment B will be used to calculate TCDD/TCDF soil concentrations.
- b. For purposes of this Memorandum, background levels of TCDD/TCDF in the soil will be excluded from calculations of the TCDD/TCDF soil concentration.
- c. Where there is no soil incorporation, it will be assumed that the TCDD/TCDF soil concentration is equal to that of the sludge. However, for silviculture operations where there is no incorporation, the calculation will be based on an assumption of incorporation of 1 cm.

3. Depth of Incorporation

Sludge may be incorporated in soil to a depth of up to 15 cm, unless a program or guideline of the state in which sludge is to be applied provides that it is appropriate to incorporate to greater depths.

4. Application Rate

Materials may be applied to land only in amounts that are consistent with good agronomic practices under local site conditions. The Mill will follow applicable USDA Extension Service, state, and county application rate requirements and guidelines and comply with the following restrictions.

- a. For silviculture operations where no incorporation occurs, sludge may be applied once during a growing cycle at a rate of no greater than 45 dry metric tons per hectare.
- b. For surface mine reclamation where no incorporation occurs, sludge may be applied one time to any one site at a rate of no greater than 224 dry metric tons per hectare.

- c. For agricultural practices, sludge may be applied at a rate of up to 68 dry metric tons per hectare, unless a program or guideline of the state in which material is to be applied provides that it is appropriate to apply at greater rates.

B. Testing Requirements

1. Frequency

Unless more frequent testing is required by Sections IV.B.7. or IV.B.8. of this Memorandum, the Mill shall test its material for the purpose of measuring TCDD/TCDF concentration for four (4) consecutive quarters after signing this Memorandum. Tests conducted in 1993 may be substituted for this required testing, provided that the sampling was done in accordance with all applicable provisions of this Memorandum.

- a. If all quarterly test results show TCDD/TCDF concentrations less than or equal to 50 ppt, but any one quarter's test results show TCDD/TCDF concentrations greater than 25 ppt, the Mill will continue to test its material on a quarterly basis. Once tests from 4 consecutive quarters show TCDD/TCDF concentrations less than or equal to 25 ppt or less than 10 ppt, the Mill may reduce the frequency of testing its material in accordance with Sub-sections b. or c. below.
- b. If all quarterly test results show TCDD/TCDF concentrations less than or equal to 25 ppt but one or more are greater than or equal to 10 ppt, the Mill shall, thereafter, test its material on a semi-annual basis. The first semi-annual test will occur no later than six months after the last qualifying quarterly results are obtained.
- c. Once two consecutive subsequent semi-annual tests show TCDD/TCDF concentrations less than 10 ppt, the Mill may begin annual testing of its material.
- d. If all test results show TCDD/TCDF concentrations less than 10 ppt, the Mill shall thereafter test its material on an annual basis. The first annual test will occur no later than six months after the last qualifying quarterly results are obtained.

2. 17 Congeners

Within three months after execution of this Memorandum, the Mill will test for each of the 17 dioxin and furan congeners specified in Attachment A. All subsequent testing will be limited to TCDD and TCDF, unless the Mill makes a significant process change.

3. Analytical Methodologies

The Mill will use (i) NCASI Method 551 for initial quarterly and subsequent monitoring of materials, as required by Section IV.B.1., and (ii) EPA Method 1613A for 17 congener testing as required by Section IV.B.2. Non-detects will be reported as "N.D. at [detection limit]," but will be assigned a value equal to one-half the detection limit for statistical purposes and that value will be used for all calculations required by this Memorandum.

4. Sampling Protocols

The Mill shall collect samples of material in such a way as to ensure that dioxin/furan concentrations are representative of the process or area being sampled.

- a. Samples will be composited and shall consist of subsamples collected either from the process (e.g., clarifier underflow line or output from dewatering device) using a temporal sampling scheme, or from a storage area or final production area using a spatial grid for sample selection.
- b. Composite samples shall consist of no fewer than fifteen (15) subsamples, and shall include at least one sample produced on each of five (5) different days.

5. Spatial and Temporal Sampling

The Mill may use either temporal or spatial sampling procedures, with choice of procedure determined by the Mill based on the process being sampled or on the physical characteristics of the location in which the samples are collected.

- a. Temporal sampling shall be conducted in accordance with procedures for such sampling set forth in the 1992 Industry-wide Dioxin Profile (June 1993) compiled by NCASI.
- b. Spatial Sampling: shall be conducted using one of the following procedures:
 - ASTM standard D-140-70 (extremely viscous liquid);
 - ASTM standard D-420-69 (soil or rock-like material);
 - ASTM standard D-1452-65 (soil-like material);
 - ASTM D-1587-83, Standard Practice for Thin-Walled Tube Sampling of Soils;
 - ASTM D-4700-91 Standard Guide for Soil Sampling from the Vadose Zone;
 - EPA SW-846, Test Methods for Evaluating Solid Waste, Sampling Grid Layout Techniques.

6. Testing Responsibility

- a. The Mill shall be responsible for monitoring and testing its materials. The Mill will use third party laboratories that participate in EPA's Contract Laboratory Program. The Mill will supply to EPA all applicable QA/QC certifications, when requested.
- b. EPA personnel may observe mill personnel sampling the Mill's materials. EPA (where applicable) and mill personnel will sign chain of custody forms before the samples are sent to the laboratory for analysis. The Mill will request the laboratory to submit analytical results to EPA at the same time it sends them to the Mill. When EPA wishes to observe mill sampling, EPA will contact the Mill to make appropriate arrangements.

7. Variability Relative to 50 ppt TEQ Cap

- a. If the Mill's quarterly or subsequent monitoring results show TCDD/TCDF TEQ concentrations greater than 75 ppt TEQ, all land application of materials must be discontinued until such time that the Mill can demonstrate a TCDD/TCDF concentration equal to or less than 50 ppt TEQ during each of three (3) consecutive months, using the following procedures:
 1. The Mill shall collect and analyze three (3) composite samples during the next three (3) months. Each composite sample will be taken in a separate month and will consist of fifteen (15) subsamples. If after sampling three (3) months no composite sample exceeds 50 ppt TEQ, then the Mill may begin to land apply materials again and return to quarterly or regular sampling.
 2. If the results from any one of the three composite samples described in Section IV.B.7.a.1. exceeds 50 ppt TEQ, then the Mill must continue to take monthly composite samples for the next three (3) consecutive months.
 3. If the results of each of the three composite samples described in Section IV.B.7.a.2. do not exceed 50 ppt TEQ, the Mill may resume land application activities and return to regular sampling
- b. If the Mill's quarterly or subsequent monitoring of materials results in a TCDD/TCDF TEQ concentration greater than 50 ppt TEQ, but less than 75 ppt TEQ, land application can continue provided the following testing program is followed.

1. The Mill shall collect and analyze three (3) composite samples during the next three (3) months. Each composite sample will be taken in a separate month and will consist of fifteen (15) subsamples. If after sampling three (3) months no sample exceeds 50 ppt TEQ, then the Mill may return to quarterly or regular sampling and continue to land apply materials.
2. If the results from any one of the three composite samples described in Section IV.B.7.b.1., exceeds 50 ppt TEQ, then the Mill must continue monthly composite sampling for the next two consecutive months. The Mill may continue to land apply for the additional two months in which it is conducting sampling so long as the results from each of the three composite samples described in Section IV.B.7.b.1. are less than 75 ppt TEQ. After completion of the two-month period, the Mill shall compute the mean (average) and the standard deviation of these six results (i.e., the result greater than 50 ppt TEQ but less than 75 ppt TEQ and the subsequent five months samples). If the average is not statistically significantly above 50 ppt TEQ, then the Mill may continue to land apply and return to regular sampling.
3. If the mean (average) of the six results is statistically significantly above 50 ppt TEQ, then the Mill must suspend all land application practices until it can demonstrate that it meets the TCDD/TCDF concentration limits set forth in the Memorandum, using the procedures described in Sections IV.B.7.b.1. and 2.

8. Variability Relative to 10 ppt TEQ Exclusion Level

If the Mill's quarterly or subsequent sampling of materials has shown that the materials are excluded from this Memorandum pursuant to Section II.B, but subsequent test results show a TCDD/TCDF concentration greater than or equal to 10 ppt, the Mill's materials remain exempt from this Memorandum provided the Mill retests its materials, within two weeks of receipt of lab analyses, in accordance with Sections IV.B.3. through IV.B.6.

- a. If the results of the retest show a TCDD/TCDF concentration less than 10 ppt, the Mill's materials remain exempt.
- b. If the results of the retest show a TCDD/TCDF concentration greater than 15 ppt, the Mill shall report its results to EPA and begin to manage its materials in accordance with this Memorandum.

- c. If the results of the retest show a TCDD/TCDF concentration greater than or equal to 10 ppt but less than or equal to 15 ppt, the Mill must test its materials for the next three consecutive months. If at the end of this period, all results show TCDD/TCDF concentrations less than 10 ppt, the Mill's materials remain exempt from this Memorandum. If any of the test results show TCDD/TCDF concentrations greater than or equal to 10 ppt, then the Mill's materials are no longer exempt from this Memorandum, as described in Section II.B., and immediately become subject to all applicable provisions of this Memorandum and the Mill must report such findings to EPA.

C. Distribution and Marketing

After June 30, 1995, P.H. Glatfelter Company shall only distribute and market materials with a TCDD/TCDF maximum concentration limit of less than 10 ppt TEQ. Upon signing this Memorandum P.H. Glatfelter Company will implement a labeling and a responsible distribution program as follows:

1. Labeling: Each unit of material distributed or marketed will have a label affixed to the product packaging or will be accompanied by a leaflet which sets out the following:
 - a. appropriate and inappropriate uses
 - b. application methods and rates
 - c. site management practices
 - d. a statement that the material is composed of pulp and paper mill wastes.
 - e. No such label or leaflet shall state or indicate that the product bearing the label has been EPA approved.
2. Responsible Distribution: The Mill will not distribute or market material to any third party which the Responsible Corporate Official (as designated in Section VIII) of the Mill knows or should reasonably know is not following the label or leaflet procedures for use of the material. This provision shall not impose on the Mill a duty to investigate or gather information about its customers, distributors, or the distributor's customers. All mills engaged in distribution and marketing will train employees engaged in these activities to familiarize them with the distribution and marketing provisions of this Memorandum. This training will include instruction on the immediate reporting to Mill management of any use of distributed or marketed materials by Mill customers in a manner not in conformance with this Memorandum. EPA personnel may review the Mill's Responsible Distribution Employee Training Program during any visit to the Mill.

3. Registration: Materials produced for use as soil conditioners will be registered as such in states where they are distributed or marketed if those states have registration programs.

D. Site Management Practices

1. Except as noted in Section IV.D.2., the land application of materials by the Mill shall comply with each of the following site management practices:
 - a. Erosion Control: The Mill shall provide storm water controls where they are necessary to prevent escape of land applied materials to surface water. Examples of such controls are diversions, terraces, waterways, or other landscaping structures described in the U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS) Engineering Field Manual or equivalent state soil control practices.
 - b. Vegetative Cover: For the purpose of reducing erosion, the Mill shall establish vegetative cover on bare or partially denuded land to which sludge has been applied in accordance with Section IV.D.1.c. USDA/SCS Practice Standard 342, Critical Area Planting; SCS Practice Standard 408, Forest Land Erosion Controls System; or equivalent state soil control practices will be used as guidelines.
 - c. Time Restrictions for Establishing Vegetation: No area to which sludge has been applied shall remain uncovered or otherwise unprotected from erosion for more than six months, unless local weather conditions, acts of God, or other site conditions (e.g. drought) prevent revegetation or installation of erosion controls.
 - d. Site Maintenance: The Mill shall perform periodic follow-up inspections and maintenance for one year after materials are land applied (unless, in the case of agricultural land, the crop is sooner harvested) to ensure that an adequate stand of vegetation is established and that any rill and gully erosion is corrected in a timely manner.
 - e. Frozen, Snow-covered, or Flooded Land: The Mill shall not apply sludge to land that is frozen, snow covered, or flooded unless it can be determined that the land application of sludge will not cause a discharge of pollutants in violation of the Clean Water Act.
 - f. Flood Plains: The Mill shall not land apply sludge in areas where the practice will permanently restrict the flow of a base flood or reduce temporary storage capacity of the flood plain.
 - g. Set Back: The Mill shall not land apply sludge within 10 meters of intermittent streams or perennial surface waters.

h. Pasture land:

1. The Mill may apply material to land used for grazing domestic animals for human consumption of meat and dairy products ("Pasture Land") only if the resultant soil concentration of TCDD/TCDF is 1 ppt TEQ or less. Soil concentration shall be determined using the formula set out in Attachment B.
2. Before land to which the Mill has spread material is converted to Pasture Land use, the Mill shall demonstrate that the soil concentration of TCDD/TCDF is 1 ppt TEQ or less by either:
 - (a) Calculating the soil concentration using records about TCDD/TCDF concentrations in the material applied, the application rate, and the depth of incorporation, using the formula in Attachment B; or
 - (b) Testing the land area to be converted to Pasture Land. Soil testing must be conducted in accordance with the sampling protocols in Section IV.B.4. and 5. and must be representative of the top five (5) cm of the area to be converted.
2. If any site management practices listed in Section IV.D.1. are addressed in state regulations or guidelines of the state in which the material is being land applied, the Mill shall follow the state requirements instead of those listed in Section IV.D.1.

E. Recordkeeping

1. Except as provided in Section IV.E.2., Mills that land apply materials shall keep the following records and data on site for three years from the date of application.
 - a. Quarterly and Annual Monitoring Data:
 1. name of the Mill;
 2. location of the Mill;
 3. the TCDD/TCDF concentration of the material based on quarterly or subsequent sampling frequency;
 4. the maximum/minimum/average and standard deviation of TCDD/TCDF concentration in materials;
 5. the total number of acres to which materials have been land applied;

6. the total amount of materials by weight applied to the site;
7. the location of each site owned or managed by the Mill or its parent company at which materials produced by the Mill have been land applied by either street address or other means of identification customarily used in a given locality. At EPA's request, the Mill shall provide directions to any such land application sites.
8. the approximate location within the site of areas to which materials have been applied (e.g., the northwest four-hectare portion of the XYZ parcel);
9. the date(s) on which materials were applied.
10. approximate dates of vegetative seeding or other site stabilization practices.

b. 17 Congener Scar Data:

1. name of the Mill;
2. location of the Mill;
3. type of significant process change and date of change (if any); and
4. the concentrations of all 17 congeners in the material.

2. Mills that land apply or distribute and market materials with a TCDD/TCDF concentration of less than 10 ppt TEQ shall keep the following records and data on site for three years:

a. Quarterly or Annual Monitoring Data:

1. name of the Mill;
2. location of the Mill; and
3. the TCDD/TCDF concentration in the material.

- b. 17 Congener Scan Data:
 1. name of the Mill;
 2. location of the Mill;
 3. type of significant process change and date of change (if any);
and
 4. the concentrations of all 17 congeners in the material.

F. Reporting

Except as provided below in Section IV.F.3., the Mill shall comply with the following reporting requirements:

1. Quarterly or Annual Monitoring Data
 - a. If the information required by Section IV.E.1.a. is requested by a state agency in the state where the material is being applied or distributed or marketed, the Mill shall send such information directly to that agency within three weeks from the date the request is received by the Mill.
 - b. Upon request, the Mill shall forward the information described in Section IV.E.1.a. directly to the appropriate EPA Regional Office within three weeks from receipt of the request by the Mill.
 - c. The Mill shall send the quarterly or annual monitoring data described in Section IV.E.1.a. within forty-five days after the conclusion of each sampling year to the AF&PA for compilation in the Annual Materials Monitoring Report.
2. 17 Congener Scan Data

The Mill shall send the initial 17 congener test data described in Section IV.B.2. to EPA within four months after the date on which this Memorandum becomes effective. The Mill shall send any subsequent 17 congener test data to EPA within forty-five days after it is received by the Mill.
3. For materials that are to be land applied or distributed or marketed with a TCDD/TCDF concentration of less than 10 ppt TEQ:
 - a. The Mill shall send its quarterly or annual monitoring data as described in IV.E.2.a. on an annual basis to the American Forest and Paper Association for compilation in the Annual Material Monitoring Report.

b. 17 Congener Scan Data:

The Mill shall forward the initial 17 congener test data required by IV.B.2.b. to EPA within four months after the date on which this Memorandum becomes effective. The Mill shall send any subsequent 17 congener test data to EPA within forty-five days after it is received by the Mill.

4. Additional Reporting

- a. The Mill shall notify EPA of (i) any statistically significant increases in TCDD/TCDF levels and (ii) any significant process changes at the same time the Mill is required to notify state water permitting authorities of such under applicable National Pollutant Discharge Elimination System (NPDES) permits.
- b. The Mill shall also notify EPA whenever the Mill receives monitoring information that indicates its material is above 50 ppt TEQ TCDD/TCDF.
- c. Upon the written request of EPA, the Mill shall submit records and/or data kept in accordance with this Memorandum. All such records and/or data submitted to EPA shall be placed in the public administrative record established for the Environmental Stewardship Program for Pulp and Paper Sludge Land Application [OPPTS-62129; FRL-4637-2].

V. EPA Findings and Actions

- A. Based on current information, EPA believes that land application and distribution and marketing of materials by the Mill in accordance with this Memorandum is consistent with Section 6 of the Toxic Substances Control Act, 15 U.S.C. §§ 2601 *et seq.* ("TSCA").
- B. EPA believes that the integrated rulemaking covering both effluent guidelines and air emission standards for the pulp and paper industry could have a significant effect on dioxin/furan levels in materials and, according to available data on the effect of process changes on such levels, could render unnecessary separate regulation of land application or distribution and marketing of materials. Consequently, EPA will defer its decision on whether or not to adopt the sludge land application rules proposed at 56 Fed. Reg. 21802 (Docket OPTS-62100) until EPA finalizes the integrated rulemaking. EPA also agrees that pending completion of the integrated rulemaking, it will not initiate a rulemaking covering the manufacture, land application, or distribution and marketing of materials under TSCA § 4 (Testing of chemical substances and mixtures) or § 6 (Regulation of hazardous substances and mixtures).

VI. Unforeseen Circumstances

The parties recognize that this Memorandum addresses matters that may be affected by evolving technologies and manufacturing processes, the results of which may not have been foreseen or addressed when this Memorandum was executed. In that event, the parties agree to consider, in good faith, modifications to this Memorandum pursuant to the procedures in Section X.

VII. Resolution of Disputes

In the event of a dispute about facts or interpretation regarding compliance with this Memorandum, the parties will comply with the Dispute Resolution procedures found in Attachment C of this Memorandum.

VIII. Responsible Officials

Richard W. Wand, Vice-President of Administration or his/her successor will be responsible for complying with this Memorandum for P.H. Glatfelter as the Responsible Corporate Official, and Mark A. Greenwood, Director, Office of Pollution Prevention and Toxics, or his successor will be responsible for complying with this memorandum for the U.S. Environmental Protection Agency.

IX. Notices

All notices, reports or submissions required by this agreement shall be sent to the following persons, unless otherwise specified herein:

For EPA: Charles M. Auer
Division Director (7405)
Chemical Control Division
Environmental Protection Division
401 M St. SW
Washington DC 20460

For the Mill: Richard W. Wand
Vice President of Administration
P.H. Glatfelter Company
228 S. Main Street
Spring Grove, PA 17632-0500

X. Effective Date, Modification, and Term of Agreement

This Memorandum is effective when executed by both EPA and the Mill and may be modified only by written agreement between them. This Memorandum may be terminated by either party upon thirty days prior written notice to the other and will terminate automatically (unless the parties otherwise agree in writing) upon (i) promulgation by EPA of final rules addressing any matter covered by the Memorandum, or (ii) a final decision by EPA that the so-called cluster rule (recently issued in proposed form at 58 Fed. Reg. 66078 et seq, (December 17, 1993)) resolves EPA's concerns about the land application and distribution and marketing of materials.

IN WITNESS WHEREOF, the parties have executed this Memorandum as of the later of the dates set forth below.

For P.H. Glatfelter Company:

Richard W. Wand, Vice President of Administration

Date

For the U.S. Environmental Protection Agency:

Mark A. Greenwood, Director
Office of Pollution Prevention and Toxics

Date

Attachment A

17 Congeners

<u>Congener</u>	<u>Toxicity Equivalency Factor ["TEF"]</u>
2,3,7,8- tetra TCDD	1
2,3,7,8- tetra TCDF	0.1
1,2,3,7,8- penta PeCDD	0.5
1,2,3,7,8- penta PeCDF 0.05	
2,3,4,7,8- penta PeCDF 0.5	
1,2,3,4,7,8- hexa HxCDD	0.1
1,2,3,6,7,8- hexa HxCDD	0.1
1,2,3,7,8,9- hexa HxCDD	0.1
1,2,3,4,7,8- hexa HxCDF	0.1
1,2,3,6,7,8- hexa HxCDF	0.1
1,2,3,7,8,9- hexa HxCDF	0.1
2,3,4,6,7,8- hexa HxCDF	0.1
1,2,3,4,6,7,8- hepta HpCDD	0.01
1,2,3,4,6,7,8- hepta HpCDF	0.01
1,2,3,4,7,8,9- hepta HpCDF	0.01
1,2,3,4,6,7,8,9- octa OCDD	0.001
1,2,3,4,6,7,8,9- octa OCDF	0.001

Attachment B

Calculation of Soil Concentration¹

$$SDC = \frac{[SLC * FS * t * UWSL]}{[(D-t) * UWS] + [FS * t * UWSL]}$$

Where:

SDC = Equivalent in-soil concentration of 't' cm of materials placed upon or blended with '(D - t)' cm of existing soil - ppt

D² = Depth to which materials are incorporated or 15 cm, whichever is greater - cm

UWS = Unit weight of soil (1.8E+05 kg/ha-cm = 1800 kg/m³)

SLC = TCDD/F concentration in dry material solids - ppt

FS = Weight fraction of solids in material - unitless

UWSL = Unit weight of wet material - kg/ha-cm (see below)

t = thickness of material layer applied to soil - cm

and

$$UWSL = 1.8E+05 * FS + 1.0E+05 * (1-FS)$$

where FS is as defined above and 1.0E+05 is the unit weight of water in kg/ha-cm (= 1000 kg/m³)

¹ Existing soil concentrations of TCDD or TCDF at the land application site are assumed to be equal to zero (0) for this Memorandum of Understanding.

² For Silviculture operations where no incorporation takes place D=1 cm.

Attachment C

P.H. Glatfeleter Company

and the

United States Environmental Protection Agency

DISPUTE RESOLUTION PROCEDURES

- A. General Provisions
 - 1. Purpose
 - 2. Definitions
 - 3. Pre-Negotiation Activities
 - 4. Referral of Disputes

- B. Guidelines for Conduct of Neutral Panel
 - 1. Scope and Applicability
 - 2. Jurisdiction of Neutral Panel
 - 3. Selection of Neutral Panel
 - 4. Disclosure and Challenge Procedures
 - 5. Qualifications of Neutral Panel
 - 6. Information Regarding Dispute
 - 7. Recommendation of Neutral Panel
 - 8. Confidentiality
 - 9. Ex parte Communications
 - 10. Administrative Fees, Expenses, and Neutral Panel's Fee
 - 11. Miscellaneous Provisions

A. GENERAL PROVISIONS

1. Purpose

As specified in the Memorandum of Understanding Regarding the Land Application of Pulp and Paper Sludge ("Memorandum of Understanding") between the Mill and the U.S. Environmental Protection Agency ("EPA"), this Appendix C contains the procedures to be followed by the parties to resolve disputes about issues of fact or of interpretation between EPA or the Mill regarding compliance with the Memorandum of Understanding. The parties establish these Dispute Resolution (DR) procedures for the sole purpose of resolving such disputes.

2. Definitions

Terms not defined in this section have the meaning given by Section 3 of the Toxic Substances Control Act, 15 U.S.C. §2602. All time deadlines in these DR procedures are specified in calendar days.

Except when otherwise specified:

- (a) "The Mill" means the pulp and paper mill that has signed the Memorandum of Understanding.
- (b) "Act" and "TSCA" mean the Toxic Substances Control Act, 15 U.S.C. §2601 et seq.
- (c) "Neutral Panel" means the persons selected in accordance with and governed by the provisions of the DR procedures.
- (d) "Dispute" means a disagreement about a fact or interpretation made by either party concerning the Memorandum of Understanding.
- (e) "Ex parte communication" means any communication, written or oral, relating to the merits of the dispute before the Neutral Panel, made unilaterally by a party.
- (f) "Party" means EPA or the Mill.

- (g) "Non-binding" means that the recommendation of the Neutral Panel is for use of the parties to assist in the settlement negotiations. The recommendation does not in any way bind the parties or otherwise determine the outcome.

3. Pre-Negotiation Activities

- (a) If either party believes that the other has not complied with the Memorandum of Understanding, that party shall so notify the other in writing. If the notified party disputes such determination, it shall have ten days from the date of receipt of the notice to notify the other party regarding the dispute. Any such dispute shall be handled in accordance with these DR procedures.
- (b) The parties agree that, should a dispute arise concerning the Memorandum of Understanding, the parties will attempt first to resolve the dispute through negotiations. The parties agree to make all good faith efforts to resolve the dispute through negotiations within thirty days from the date that notice of the dispute is received.

4. Referral of Disputes

If the parties are unable to resolve the dispute through negotiations within thirty days, the parties agree to jointly refer the dispute to a Neutral Panel pursuant to the provisions of these DR procedures.

B. GUIDELINES FOR CONDUCT OF NEUTRAL PANEL

1. Scope and Applicability

The procedures established by this DR document may be used only to resolve disputes raised pursuant to Section A.3., above.

2. Jurisdiction of Neutral Panel

In accordance with these DR procedures, the Neutral Panel is authorized to issue a recommendation regarding the resolution of the disputes referred by the parties pursuant to Section A.4., above.

3. Selection of the Neutral Panel

The Neutral Panel will be chosen in the following manner.

- (a) Should a dispute arise which cannot be resolved through negotiations pursuant to Section A.3., above, each party shall choose one neutral who meets the qualifications specified in Section B.5., below. These two neutrals shall be named within fifteen days after the end of the thirty-day negotiation period described in A.3.b., above. Within fifteen days after being selected, the two neutrals shall select a third individual who also meets the qualifications specified in Section B.5., below. These three (3) individuals shall constitute the Neutral Panel.
- (b) If any Neutral Panel member should resign, die, withdraw, refuse, be disqualified, or be unable to perform the duties of the office, a replacement shall be selected in accordance with the applicable provisions of this section and the dispute resolution process shall start over unless the parties agree otherwise.

4. Disclosure

- (a) A person selected or nominated as a Neutral Panel member pursuant to Section B.3. above, shall, within five days of receipt of his or her notice of nomination, disclose to both parties any circumstances likely to affect his or her impartiality, including any bias or any financial or personal interest in the result of the Panel's recommendation, or any past or present relationship with the parties or their counsel.

- (b) Within five days of naming the Neutral Panel, the parties agree to make a diligent effort to ascertain all prior contact between themselves and the nominated Neutral Panel and to notify all parties of any such contact.
- (c) Upon receipt of such information from a nominated Neutral Panel member, or other source, the affected party shall promptly communicate such information to the other party and to the Neutral Panel.
- (d) Within receipt of such information, either party may veto a member of the Neutral Panel by sending written notice to the non-opposing party within ten days of naming the individual(s). A replacement shall be selected in accordance with the applicable provisions of this section within ten days.

5. Qualifications of Neutral Panel Members

Any individual named by the parties as a Neutral Panel member shall meet the following qualifications:

- (a) He/She shall not currently be employed by either party, as an employee, contractor or otherwise.
- (b) He/She shall have either relevant experience or an advanced degree(s) in a field of study appropriate to making recommendations pursuant to these DR procedures.
- (c) He/She shall have no financial or equitable interest in the Mill, or any business entity having a financial or equitable interest in the Mill.
- (d) He/She shall have no close personal relationship with any employee or representative of the parties involved in the dispute.
- (e) He/She shall agree to conduct dispute resolution activities in accordance with these DR procedures.

- (f) His/Her other business and personal obligations should be such to allow for devotion of the time and attention necessary for a prompt and efficient resolution of the dispute.
- (g) He/She shall agree to enter into a confidentiality agreement with the Mill.

6. Information Regarding Dispute

- (a) Within ten days of the selection of the Neutral Panel, material will be submitted to the Neutral Panel by each of the parties. Such material shall include the Memorandum of Understanding.
- (b) Upon the referral of a dispute pursuant to Section A.4., above, the parties shall each submit to the Neutral Panel all information upon which the dispute is based. The information shall include, but not be limited to a statement by each party of the matter in dispute and the issue to be resolved as specified in Section A.3., above.
- (c) The Neutral Panel may require the parties to submit such additional information as it may deem necessary to an understanding of the disputed issue, including witness statements, documents, and the stipulation of uncontested facts. The Neutral Panel shall be the judge of the relevancy and materiality of information offered, and conformity to legal rules of evidence shall not be necessary.
- (d) The Neutral Panel shall specify a period of time, not to exceed fifteen (15) days, for the submission of requested information.
- (e) All information submitted to the Neutral Panel pursuant to this section shall be simultaneously submitted to all parties.

- (f) The Neutral Panel may request and consider the statements of witnesses by affidavit, interrogatory, deposition, or personal testimony, but shall give the information only such weight as the Neutral Panel deems appropriate after consideration of any objections made to its relevancy or materiality. The Neutral Panel may request that representatives from either party or witnesses appear in person to provide testimony or statements.
- (g) Either party may request to appear in person in front of the Neutral Panel in order to present its summation of the party's case, and the Neutral Panel may exercise its discretion in responding to such requests. If the Neutral Panel agrees to hear the summation of one party, however, it must hear the summation of both parties.

7. Recommendation of Neutral Panel

- (a) Upon the receipt of all information submitted or requested pursuant to Section B.6., above, the Neutral Panel shall declare the investigative period closed and so notify the parties.
- (b) The Neutral Panel shall render a recommendation within ten days after the investigative period is declared closed pursuant to Section B.7.(a), above, unless:
 - (1) Both parties agree in writing to an extension; or
 - (2) The Neutral Panel determines that an extension of the time limit is necessary.
- (c) The recommendation of the Neutral Panel shall be signed and in writing. It shall contain a full statement of the basis and rationale for the Neutral Panel's recommendation.
- (d) Within ten days of receiving the Neutral Panel's recommendation, the parties shall again meet and attempt to settle the dispute. If the parties are unable to reach an agreement within thirty (30) days from receiving the Neutral Panel's recommendation, then either party may exercise the option of terminating the Memorandum of Understanding in accordance with such Memorandum of Understanding.

- (e) If the parties settle their dispute prior to receiving the recommendation of the Neutral Panel, the Panel shall cease all further activities in regard to the dispute upon receipt of joint notice of such settlement from the parties.
- (f) The parties shall accept as legal delivery of the recommendation the placing of a true copy of the recommendation in the first class United States mail, postage prepaid, by the Neutral Panel, addressed to the individual designated in Section IX. (Notices) of the Memorandum of Understanding or their attorneys, or the receipt of a true copy of the recommendation by personal delivery service.
- (g) After the Neutral Panel forwards its recommendation to the parties, it shall return all dispute-specific information provided by the parties (including any copies) and destroy all notes, memoranda, and any other records concerning the dispute.

8. Confidentiality

- (a) The Neutral Panel shall treat the subject matter of all submitted information as confidential and shall not disclose any trade secret or confidential business information designated as such by the parties. The Mill shall allow the Neutral Panel to receive and review information designated by the Mill as confidential business information (CBI), under EPA rules.
- (b) The recommendation of the Neutral Panel shall not be admissible as evidence in any proceeding brought under any provision of TSCA or any other provision of law.
- (c) The members of the Neutral Panel shall not be compelled to testify or otherwise provide evidence or information regarding the Neutral Panel proceedings or in any proceedings regarding the subject matter of the dispute.

9. Ex Parte Communications

- (a) Neither party, nor anyone acting on behalf of either party, shall engage in ex parte communication with the Neutral Panel concerning matters being handled under these DR procedures.
- (b) Any communication with, or submission of information to, the Neutral Panel in violation of these rules will seriously jeopardize the ability of the Neutral Panel to function pursuant to these DR procedures; and to the extent that such a violation is found to have occurred, the opposing party shall have the discretion to terminate these DR procedures.
- (c) Notwithstanding the provisions of Section 11, below, any such violation of Subsection 9(a), of these DR procedures by either party, which results in termination of these DR procedures, shall entitle the opposing party to full compensation for its share of the Neutral Panel's fees and expenses.

10. Administrative Fees, Expenses, and Neutral Panel's Fee

- (a) EPA has the discretion to decide whether to enter into DR proceedings based on available funding.
- (b) Each party shall pay the fees and expenses of the Neutral Panel member chosen by that party. The fees and expenses of the Neutral Panel member chosen by the parties' representatives shall be borne equally by the parties, and arrangements for compensation of the third neutral shall be made independently by each party.
- (c) Expenses of providing information to the Neutral Panel shall be borne by the party producing such information.
- (d) The hourly rates and expenses, and the anticipated budget for the Neutral Panel shall be agreed upon by the parties prior to the commencement of any activities by the Neutral Panel.

11. Miscellaneous Provisions

- (a) All papers connected with the recommendation of the Neutral Panel shall be served on the opposing party either by personal service or United States mail, First Class, addressed as specified in the Memorandum of Understanding.
- (b) Neutral Panel members shall be disqualified from acting on behalf of either party during the operation of the Memorandum of Understanding, except that the parties may agree to select a prior Neutral Panel member as a Neutral Panel member in future dispute resolution proceedings pursuant to the Memorandum of Understanding.
- (c) Any notification or communication between the parties, or with and by the Neutral Panel, shall be in writing, and shall be confidential and entitled to the same privileges that apply generally to settlement negotiations.