CONSUMER PRODUCT SAFETY COMMISSION
DIV OF PROCUREMENT SERVICES
4330 EAST WEST HWY
ROOM 523
BETHESDA MD 20814

TOXICOLOGY EXCELLENCE FOR RISK ASSESSMENT
ATTN JACQUELINE PATTERSON
2300 MONTANA AVE SUITE 409
CINCINNATI OH 45211-3888

Tel: (513) 542-7475

DUNS Number: [Redacted]
Contracting Officer Representative:
Kristina Hatlelid
Khatlelid@cpsc.gov
301-987-2558

Task Order 0014 to contract number CPSC-D-12-0001 is hereby issued for risk assessment services. The contractor shall provide all necessary personnel, materials, and services for the performance period of June 15, 2015 through June 225.

26. TOTAL AWARD AMOUNT (For Govt. Use Only)
$162,857.00

29. AWARD OF CONTRACT REF.
OFFER DATED
INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREBIN, IS ACCEPTED AS TO ITEMS.

30a. SIGNATURE OF OFFEROR/CONTRACTOR
Eddie Ahmad

33c. DATE SIGNED
6/12/15

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION IS NOT USABLE

STANDARD FORM 1449 (REV. 3/2005)
Prescribed by GSA - FAR (48 CFR) 82.212
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Schedule of Supplies/Services</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Risk Assessment Services</td>
<td>1</td>
<td>LO</td>
<td>162,857.00</td>
<td>162,857.00</td>
</tr>
</tbody>
</table>

The total amount of award: $162,857.00. The obligation for this award is shown in box 26.
Statement of Work

(Contract# CPSC-D-12-0001 / Task Order 0014)

Exposure Assessment: Potential for the Presence of Lead, Phthalates, and other specified chemicals in Engineered Wood Products

1. Description of Services

The contractor shall furnish all necessary personnel, materials, services, and facilities to perform the work set forth below.

The contractor shall conduct research regarding the production of engineered wood products regarding the possibility of the raw materials or finished product containing:

- lead in concentrations exceeding 100 parts per million (ppm),
- any of the specified phthalates (Table 1) in concentrations greater than 0.1 percent (1000 ppm), and
- any of the specified elements (Table 2) that are included in the safety standard for toys, ASTM F963-11, Standard Consumer Safety Specification for Toy Safety,\(^1\) in concentrations exceeding specified limits.

<table>
<thead>
<tr>
<th>Phthalate</th>
<th>Chemical Abstracts Service (CAS) Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEHP: di-(2-ethylhexyl) phthalate</td>
<td>117-81-7</td>
</tr>
<tr>
<td>DBP: dibutyl phthalate</td>
<td>84-74-2</td>
</tr>
<tr>
<td>BBP: benzyl butyl phthalate</td>
<td>85-68-7</td>
</tr>
<tr>
<td>DINP: diisononyl phthalate</td>
<td>28553-12-0, 68515-48-0</td>
</tr>
<tr>
<td>DIDP: diisodecyl phthalate</td>
<td>26761-40-0, 68515-49-1</td>
</tr>
<tr>
<td>DnOP: di-n-octyl phthalate</td>
<td>117-84-0</td>
</tr>
<tr>
<td>DIBP: diisobutyl phthalate</td>
<td>84-69-5</td>
</tr>
<tr>
<td>DPENP: di-n-pentyl phthalate</td>
<td>131-18-0</td>
</tr>
<tr>
<td>DHEXP di-n-hexyl phthalate</td>
<td>84-75-3</td>
</tr>
<tr>
<td>DCHP dicyclohexyl phthalate</td>
<td>84-61-7</td>
</tr>
</tbody>
</table>

\(^1\) ASTM International, [http://www.astm.org/Standards/F963.htm](http://www.astm.org/Standards/F963.htm)
Table 2
Soluble\textsuperscript{2} Limits, ppm (mg/kg), for Chemical Elements\textsuperscript{3}
ASTM F963-11, Standard Consumer Safety Specification for Toy Safety

<table>
<thead>
<tr>
<th>Antimony</th>
<th>Arsenic</th>
<th>Barium</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Mercury</th>
<th>Selenium</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>25</td>
<td>1000</td>
<td>75</td>
<td>60</td>
<td>60</td>
<td>500</td>
</tr>
</tbody>
</table>

As provided by the American Home Furnishings Alliance, engineered wood (also called composite wood) is defined as including a range of derivative wood products (particle board, medium density fiberboard, or hardwood plywood) manufactured by bonding primarily cellulosic materials (i.e., wood fibers) with adhesives.

The contractor shall develop information about the materials, other than natural wood or similar cellulosic materials, and the processes used in the manufacture of engineered wood consumer products, including adhesives, resins, and binders. The information shall focus on circumstances where the materials could contain the specified substances (lead, specified phthalates, and/or specified elements) at concentrations greater than the specified concentrations for each substance.

The contractor's investigation of the specified chemical substances (lead, phthalates, toy standard elements) shall include the following information:

1. An overview of the materials, other than natural wood or similar natural cellulosic materials, for example, adhesives, resins, and binders, and the processes used worldwide to create engineered wood products;
2. Detailed description of the raw materials used worldwide in the production of the materials, other than natural wood or similar natural cellulosic materials, used to make engineered wood products (adhesives, resins, and binders);
3. The proportions or concentrations (or typical ranges) of the wood and non-wood components; for example, the percentage by weight of adhesives and other non-wood materials in each engineered wood product type, for example, particle board, medium density fiberboard, and hardwood plywood;
4. Detailed description of the manufacturing processes used worldwide to produce the materials (adhesives, resins, and binders) and final engineered wood products; and
5. The potential use and description of any recycled materials or other additives in the production of engineered wood that could contain lead, the specified phthalates, or the specified elements.

The research shall detail the material(s) in which one or more of the specified chemical substances are used, which substances are typically used, the reasons for including the substance(s), and typical concentration ranges for the substance(s). The contractor shall include information about the specified substances for the separate raw materials and for

\textsuperscript{2} For the purposes of this work, the toy safety standard solubility limit for each element shall be treated as a concentration limit; e.g., the limit for antimony in an engineered product or material is 60 ppm (mg/kg) based on the total concentration of antimony in the material.

\textsuperscript{3} Lead is included in the toy safety standard, but is subject to different federal requirements.
finished engineered wood products constructed with the component materials, as appropriate, depending on the available information.

If the specified substances are unlikely to be present in engineered wood materials, the research shall detail the reasons why the substances are not present (e.g., incompatible chemical properties, no identified application for the substance(s) for the material, none of the specified substances are used because of availability and use of alternative chemicals, such as more effective or less expensive substitutes).

The contractor shall prepare a project plan detailing the contractor's planned activities. The contractor shall meet with the U.S. Consumer Product Safety Commission (CPSC or Commission) staff by teleconference to discuss the plan prior to the commencement of the research. Any changes to the task list or project schedule shall be immediately communicated to the CPSC project officer by email, with an updated task list and/or project schedule delivered within seven calendar days.

In addition, the contractor shall conduct a progress report meeting once per month after the task is awarded with the Contracting Officer's Representative (COR) and/or designated staff. The project tasks and schedule will be reviewed. Technical issues, questions and other matters may be discussed.

The contractor shall provide electronic copies of the report and a list of all references examined during the research. Copies of references cited shall be made available to the COR in paper or electronic form at the completion of the task.

All documents delivered shall contain the following information:

1. Date;
2. Contract Number;
3. Contractor name; and

2. Contract Type

This is a firm fixed price task order with fully loaded hourly rates for the hours indicated in the schedule of services.

3. Background

Lead

Section 101 of the Consumer Product Safety Improvement Act (CPSIA)⁴ restricts the presence of lead in any component part of a children's product (with a few exceptions). A children's product is a consumer product designed or intended primarily for children 12 years of age or younger. Lead is limited in component parts of children's products to concentrations no more than 100 ppm (0.01 percent) by weight.

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Phthalates

Section 108 of the CPSIA restricts the presence of six phthalates in children’s toys and child care articles. A child’s toy is a consumer product designed or intended by the manufacturer for a child 12 years of age or younger for use by the child when the child plays. A child care article is a consumer product designed or intended by the manufacturer to facilitate sleep or the feeding of children age 3 and younger, or to help such children with sucking or teething. The six prohibited phthalates cannot be present in children’s toys or child care articles in concentrations above 0.1 percent. The limit applies to DBP, BBP, and DEHP in all children’s toys and child care articles products, and to DnOP, DINP, and DiDP in mouthable toys, as well as child care articles. Additionally, based on recommendations from CPSC’s Chronic Hazard Advisory Panel, the Commission recently published a proposed rule that would restrict four additional phthalates (DIBP, DPENP, DHEXP, and DCHP). While the Commission also proposed to remove two phthalates (DnOP, DiDP) from the prohibition for use in children’s products, currently, these two substances continue to be prohibited in mouthable toys and child care articles.

Toy Safety Standard

If a children’s product is subject to the requirements of ASTM F963-11, Standard Consumer Safety Specification for Toy Safety, paints, surface coatings, and accessible substrate materials are subject to solubility limits for eight elements (antimony, arsenic, barium, cadmium, chromium, lead, mercury, and selenium). The maximum soluble migrated element in paints, surface coatings, and substrates (other than modeling clay) are listed above in Table 2 (Table 1 in ASTM F963-11).\(^5\)

Commission Action

Section 14 of the Consumer Product Safety Act (CPSA) requires third party testing of children’s products to the applicable children’s product safety rules.

The Commission has determined that some materials do not, and will not, contain lead (Pb) in excess of the concentration limit for lead in children’s products. These materials are listed in 16 C.F.R. § 1500.91.\(^6\) Component parts made from these materials are not subject to third party testing for lead for certification purposes.\(^7\)

In a similar manner, it may be possible for the Commission to determine that additional materials do not, and will not, contain lead in excess of 100 ppm, and for the Commission to determine that some materials do not contain any of the specified phthalates at levels that exceed 0.1 percent, and thus do not require third party testing to assure compliance with the respective requirements. Further, it may be possible for the Commission to determine that some materials do not contain any of the elements specified in ASTM F963-11 in concentrations that exceed the respective solubility limits, and thus do not require third party testing to assure compliance with

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5 Section 4.3.5.2 of ASTM F963-11.
6 The rule is available at: http://www.ecfr.gov. Browse Title 16 - Commercial Practices. Go to part 1500, and section 1500.91.
7 Compliance to the lead content limit of 100 ppm is always required for accessible component parts of children’s products, irrespective of any testing requirements.
ASTM F963-11. If a material contains an element at a concentration that is no more than its solubility limit, that material will always be compliant with the solubility requirement.

4. Objective

Under this task order, CPSC staff plans to research the worldwide manufacture of engineered wood products that could be used to construct children’s products, and the potential for engineered wood or the materials used to make engineered wood to contain lead, specified phthalates, or the other specified elements in concentrations above the respective requirements.

The objective of this task order is to acquire data to support Commission determinations regarding required third party testing.

5. Period of Performance


6. Government Furnished Materials

The government will furnish electronic copies of information in public comments received by the Commission concerning engineered wood products.

7. Deliverables or Performance

The contractor shall provide the requested information in the form of a written report. The report shall be in the format of a scientific report with full citations and tables, as appropriate. The reviewer shall e-mail the report to the COR as a Microsoft Word file.

8. Delivery Schedule

The contractor shall provide the service or deliverable listed in Table 3 per the delivery or performance listed.

<table>
<thead>
<tr>
<th>Item(s)</th>
<th>Quantity</th>
<th>Delivery or Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Contractor and CPSC Contracting Officer’s Representative (COR) will</td>
<td>1</td>
<td>Within 14 calendar days of project initiation.</td>
</tr>
<tr>
<td>meet by teleconference to discuss and initiate the contractor’s project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Contractor and CPSC COR shall meet by teleconference for status</td>
<td>As</td>
<td>At least once per month after project initiation.</td>
</tr>
<tr>
<td>updates.</td>
<td>appropriate.</td>
<td></td>
</tr>
<tr>
<td>The Contractor shall submit a draft final report to the CPSC COR.</td>
<td>1</td>
<td>Within 180 calendar days after the initial teleconference.</td>
</tr>
<tr>
<td>The CPSC COR will provide written comments on the draft final report to the Contractor.</td>
<td>1</td>
<td>Within 14 calendar days after receipt of the draft final report.</td>
</tr>
<tr>
<td>The Contractor shall submit a final report to the CPSC COR.</td>
<td>The Contractor shall revise the draft final report as appropriate.</td>
<td>Within 30 calendar days after receipt of comments.</td>
</tr>
<tr>
<td>Inspection and Acceptance.</td>
<td>The Final report will be reviewed by the CPSC COR.</td>
<td>Within 14 calendar days after receipt of the report.</td>
</tr>
</tbody>
</table>

9. Place of Delivery

The contractor shall submit written materials by email to the COR, Dr. Kristina Hatlelid (khatlelid@cpsc.gov). If needed, the contractor may mail or send written materials by the deadlines to:

Kristina Hatlelid, Ph.D., M.P.H.
U.S. Consumer Product Safety Commission
5 Research Place
Rockville, MD 20850

Technical questions or clarifications about the documents should be directed to Dr. Kristina Hatlelid at 301-987-2558 or khatlelid@cpsc.gov.

10. Inspection and Acceptance

The Draft Final report submitted to the CPSC will be reviewed within 14 days of receipt of the draft final report for any additional questions and/or comments. If returned to the contractor as a result of the review, the contractor shall address and/or revise their report accordingly and return the final version to the COR within 14 days of receipt. The CPSC COR will then have an additional 14 days to review and accept the Final report.

11. Requirement for CPSC Clearance

The final report is the property of the U.S. Consumer Product Safety Commission. The Contractor shall not publish the final report, present the information at scientific meetings, or in any other way make the findings public in any form without the written permission of the COR. Any publication must be cleared following CPSC procedures, as outlined in the CPSA.